



FINLAND'S INFORMATIVE INVENTORY REPORT 2024

Air Pollutant Emissions 1980-2022

under the UNECE CLRTAP and the EU NECD

Part 7 - Annexes

March 2024

**FINNISH ENVIRONMENT INSTITUTE**

Climate solutions unit

Air pollution group

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Cover photo Part 5: Marja-Leena Nenonen (2006) Kivijäkälä (Stone lichen), Ympäristöhallinnon kuvapankki

## **Annex 1**

### **Implied emission factor tables for fuel combustion in 2022 (2023 submission)**

Updated March 2024 (TF)

**NOx Implied emission factors in Finnish air pollutant inventory for 2022**

2022	NOx	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.058959527	t/TJ
2022	NOx	1A1a	ANIMAL-BASED FUELS	0.051500283	t/TJ
2022	NOx	1A1a	ANTHRACITE	0.065809577	t/TJ
2022	NOx	1A1a	ASPHALTENE	0.024894189	t/TJ
2022	NOx	1A1a	BARK	0.082927144	t/TJ
2022	NOx	1A1a	BIO PYROLYSIS OIL	0.082033621	t/TJ
2022	NOx	1A1a	BIO-FUEL OIL	0.174847794	t/TJ
2022	NOx	1A1a	BLAST FURNACE GAS	0.009079199	t/TJ
2022	NOx	1A1a	CHIPS FROM ROUNDWOOD	0.091946388	t/TJ
2022	NOx	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.046253285	t/TJ
2022	NOx	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.068184096	t/TJ
2022	NOx	1A1a	COAL (S=1.0%)	0.073345785	t/TJ
2022	NOx	1A1a	COKE OVEN GAS	0.009079232	t/TJ
2022	NOx	1A1a	CUTTER CHIPS ETC.	0.091122351	t/TJ
2022	NOx	1A1a	DEINKING WASTE	0.085380133	t/TJ
2022	NOx	1A1a	DEMOLITION WOOD	0.122812435	t/TJ
2022	NOx	1A1a	DIESEL OIL (S=001%)	0.090327478	t/TJ
2022	NOx	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.091812236	t/TJ
2022	NOx	1A1a	FOREST RESIDUE CHIPS	0.099078477	t/TJ
2022	NOx	1A1a	FOREST RESIDUE CHIPS	0.088490474	t/TJ
2022	NOx	1A1a	GASOIL (FOR NON-ROAD USE)	0.077352631	t/TJ
2022	NOx	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.092363703	t/TJ
2022	NOx	1A1a	HEAVY FUEL OIL (S<0,1%)	0.072994907	t/TJ
2022	NOx	1A1a	HEAVY FUEL OIL (S<0,5%)	0.108519736	t/TJ
2022	NOx	1A1a	HEAVY FUEL OIL (S<1%)	0.088654223	t/TJ
2022	NOx	1A1a	HYDROGEN	0.040823027	t/TJ
2022	NOx	1A1a	IMPREGNATED WOOD	0.061815050	t/TJ
2022	NOx	1A1a	INDUSTRIAL WASTE	0.119480356	t/TJ
2022	NOx	1A1a	LANDFILL GAS	0.070785033	t/TJ
2022	NOx	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.131687300	t/TJ
2022	NOx	1A1a	LIGNIN	0.066150574	t/TJ
2022	NOx	1A1a	LIQUEFIED NATURAL GAS (LNG)	0.049314463	t/TJ
2022	NOx	1A1a	LIQUID GAS	0.064502869	t/TJ
2022	NOx	1A1a	MILLED PEAT	0.086853058	t/TJ
2022	NOx	1A1a	MOTOR GASOLINE (S=0.001%)	0.074448367	t/TJ
2022	NOx	1A1a	MUNICIPAL WASTE - unsorted	0.099753764	t/TJ
2022	NOx	1A1a	NATURAL GAS	0.056369953	t/TJ
2022	NOx	1A1a	NATURAL GAS	0.050660064	t/TJ
2022	NOx	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.106460328	t/TJ
2022	NOx	1A1a	OTHER FOSSIL GAS	2.987102134	t/TJ
2022	NOx	1A1a	OTHER FOSSIL SOLID	0.147874268	t/TJ
2022	NOx	1A1a	OTHER FUEL	0.142443454	t/TJ
2022	NOx	1A1a	OTHER MEDIUM DISTILLATES	0.226735369	t/TJ
2022	NOx	1A1a	OTHER NON-FOSSIL GAS	0.087105170	t/TJ
2022	NOx	1A1a	OTHER NON-FOSSIL SOLID	0.048328733	t/TJ
2022	NOx	1A1a	OTHER NON-FOSSIL SOLID	0.111901063	t/TJ
2022	NOx	1A1a	OTHER NON-FOSSIL SOLID	0.062518472	t/TJ
2022	NOx	1A1a	OTHER WASTE	0.095948977	t/TJ
2022	NOx	1A1a	OTHER WOOD RESIDUE	0.053967140	t/TJ
2022	NOx	1A1a	PAPER	0.058676300	t/TJ
2022	NOx	1A1a	RECOVERED FUEL (REF 2)	0.100000000	t/TJ
2022	NOx	1A1a	RECOVERED WOOD	0.092587117	t/TJ
2022	NOx	1A1a	RECYCLED AND WASTE OILS	0.053890794	t/TJ

2022	NOx	1A1a	RENEWABLE DIESEL	0.100000000	t/TJ
2022	NOx	1A1a	SAWDUST	0.094475541	t/TJ
2022	NOx	1A1a	SOD PEAT	0.193603475	t/TJ
2022	NOx	1A1a	SOLID RECOVERED FUEL (SRF)	0.108267261	t/TJ
2022	NOx	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.075923004	t/TJ
2022	NOx	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.075485566	t/TJ
2022	NOx	1A1a	WOOD RESIDUE CHIPS	0.085114124	t/TJ
2022	NOx	1A1a	WOOD STUMP CHIPS	0.071763312	t/TJ
2022	NOx	1A1b	COKE (S=1.0%)	0.260262239	t/TJ
2022	NOx	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.070975106	t/TJ
2022	NOx	1A1b	NATURAL GAS	0.037238924	t/TJ
2022	NOx	1A1b	NATURAL GAS	0.027882932	t/TJ
2022	NOx	1A1b	OTHER FOSSIL GAS	0.043376993	t/TJ
2022	NOx	1A1b	OTHER FOSSIL LIQUID	0.054397935	t/TJ
2022	NOx	1A1b	OTHER MEDIUM DISTILLATES	0.067705425	t/TJ
2022	NOx	1A1b	OTHER NON-FOSSIL GAS	0.043377041	t/TJ
2022	NOx	1A1b	PETROLEUM COKE	0.051545196	t/TJ
2022	NOx	1A1b	REFINERY GAS	0.028537068	t/TJ
2022	NOx	1A1b	REFINERY GASES	0.050842127	t/TJ
2022	NOx	1A1b	SULPHUR CONCENTRATE	0.117292626	t/TJ
2022	NOx	1A2a	BLAST FURNACE GAS	0.048686160	t/TJ
2022	NOx	1A2a	COKE (S=1.0%)	0.899301584	t/TJ
2022	NOx	1A2a	COKE OVEN GAS	0.205905435	t/TJ
2022	NOx	1A2a	DIESEL OIL (S=0.001%)	0.035429252	t/TJ
2022	NOx	1A2a	GASOIL (FOR NON-ROAD USE)	0.007649239	t/TJ
2022	NOx	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.080396034	t/TJ
2022	NOx	1A2a	LIQUID GAS	0.334047809	t/TJ
2022	NOx	1A2a	NATURAL GAS	0.134931861	t/TJ
2022	NOx	1A2a	OTHER FOSSIL SOLID	0.010931261	t/TJ
2022	NOx	1A2a	WOOD RESIDUE CHIPS	0.237854252	t/TJ
2022	NOx	1A2b	COAL (S=1.0%)	0.169999469	t/TJ
2022	NOx	1A2b	COKE (S=1.0%)	0.165487182	t/TJ
2022	NOx	1A2b	HEAVY FUEL OIL (S<1%)	0.188194355	t/TJ
2022	NOx	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.165502005	t/TJ
2022	NOx	1A2b	LIQUEFIED NATURAL GAS (LNG)	0.070000002	t/TJ
2022	NOx	1A2b	LIQUID GAS	0.132444706	t/TJ
2022	NOx	1A2b	NATURAL GAS	0.062995696	t/TJ
2022	NOx	1A2b	OTHER HEAVY DISTILLATES	0.165487161	t/TJ
2022	NOx	1A2c	DIESEL OIL (S=0.001%)	0.100000002	t/TJ
2022	NOx	1A2c	GASIFIED WASTE	0.021158990	t/TJ
2022	NOx	1A2c	GASOIL (FOR NON-ROAD USE)	0.262888555	t/TJ
2022	NOx	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.229030115	t/TJ
2022	NOx	1A2c	HEAVY FUEL OIL (S<0,1%)	0.060265579	t/TJ
2022	NOx	1A2c	HEAVY FUEL OIL (S<1%)	0.907588811	t/TJ
2022	NOx	1A2c	HYDROGEN	0.411276222	t/TJ
2022	NOx	1A2c	LANDFILL GAS	0.070000004	t/TJ
2022	NOx	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.085550990	t/TJ
2022	NOx	1A2c	LIQUEFIED NATURAL GAS (LNG)	0.080510212	t/TJ
2022	NOx	1A2c	LIQUID GAS	0.040493251	t/TJ
2022	NOx	1A2c	NATURAL GAS	0.037415896	t/TJ
2022	NOx	1A2c	OTHER FOSSIL GAS	0.013326644	t/TJ
2022	NOx	1A2c	OTHER FOSSIL LIQUID	0.040780972	t/TJ
2022	NOx	1A2c	OTHER MEDIUM DISTILLATES	0.050965479	t/TJ
2022	NOx	1A2c	TALL PITCH AND OIL	0.075095506	t/TJ
2022	NOx	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.054633206	t/TJ
2022	NOx	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.086844997	t/TJ

2022	NOx	1A2d	ANIMAL-BASED FUELS	0.051263742	t/TJ
2022	NOx	1A2d	AROMATIC GAS	0.241463945	t/TJ
2022	NOx	1A2d	BARK	0.108502617	t/TJ
2022	NOx	1A2d	BIOGAS FROM WASTEWATER TREATMENT	0.023478984	t/TJ
2022	NOx	1A2d	BIOLOGICAL SLURRY	0.068989964	t/TJ
2022	NOx	1A2d	BLACK LIQUOR	0.059355417	t/TJ
2022	NOx	1A2d	CHIPS FROM ROUNDWOOD	0.068690227	t/TJ
2022	NOx	1A2d	COAL (S=1.0%)	0.086571485	t/TJ
2022	NOx	1A2d	CUTTER CHIPS ETC.	0.074855736	t/TJ
2022	NOx	1A2d	DEMOLITION WOOD	0.051263743	t/TJ
2022	NOx	1A2d	FOREST RESIDUE CHIPS	0.052063872	t/TJ
2022	NOx	1A2d	GASOIL (FOR NON-ROAD USE)	0.052697536	t/TJ
2022	NOx	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.151265334	t/TJ
2022	NOx	1A2d	HEAVY FUEL OIL (S<0,1%)	0.062767835	t/TJ
2022	NOx	1A2d	HEAVY FUEL OIL (S<1%)	0.137708499	t/TJ
2022	NOx	1A2d	HYDROGEN	0.100949356	t/TJ
2022	NOx	1A2d	IMPREGNATED WOOD	0.051263742	t/TJ
2022	NOx	1A2d	INDUSTRIAL WASTE	0.188913912	t/TJ
2022	NOx	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.240088533	t/TJ
2022	NOx	1A2d	LIQUEFIED NATURAL GAS (LNG)	0.069997354	t/TJ
2022	NOx	1A2d	LIQUID GAS	0.078255955	t/TJ
2022	NOx	1A2d	METHANOL	0.144940271	t/TJ
2022	NOx	1A2d	MILLED PEAT	0.097258904	t/TJ
2022	NOx	1A2d	NATURAL GAS	0.049975353	t/TJ
2022	NOx	1A2d	NATURAL GAS	0.058651547	t/TJ
2022	NOx	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.120323381	t/TJ
2022	NOx	1A2d	OTHER FUEL	6.469414827	t/TJ
2022	NOx	1A2d	OTHER NON-FOSSIL GAS	0.070000001	t/TJ
2022	NOx	1A2d	OTHER WOOD RESIDUE	0.022683172	t/TJ
2022	NOx	1A2d	PAPER	0.080366051	t/TJ
2022	NOx	1A2d	PLASTIC WASTE	0.087852556	t/TJ
2022	NOx	1A2d	RECOVERED WOOD	0.075893333	t/TJ
2022	NOx	1A2d	RECYCLED AND WASTE OILS	0.051263743	t/TJ
2022	NOx	1A2d	SAWDUST	0.097605001	t/TJ
2022	NOx	1A2d	SOLID RECOVERED FUEL (SRF)	0.084806433	t/TJ
2022	NOx	1A2d	TALL PITCH AND OIL	0.073626036	t/TJ
2022	NOx	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.114869303	t/TJ
2022	NOx	1A2d	WOOD RESIDUE CHIPS	0.070425376	t/TJ
2022	NOx	1A2d	WOOD STUMP CHIPS	0.051263741	t/TJ
2022	NOx	1A2e	ANIMAL FATS AND OILS	0.088441919	t/TJ
2022	NOx	1A2e	ANIMAL-BASED FUELS	0.100000000	t/TJ
2022	NOx	1A2e	BIO-FUEL OIL	0.090137275	t/TJ
2022	NOx	1A2e	BIOGAS FROM WASTEWATER TREATMENT	0.042766593	t/TJ
2022	NOx	1A2e	CHIPS FROM ROUNDWOOD	0.118356309	t/TJ
2022	NOx	1A2e	COAL (S=1.0%)	0.123021157	t/TJ
2022	NOx	1A2e	COKE (S=1.0%)	0.006930350	t/TJ
2022	NOx	1A2e	FOREST RESIDUE CHIPS	0.119544244	t/TJ
2022	NOx	1A2e	GASOIL (FOR NON-ROAD USE)	0.061753301	t/TJ
2022	NOx	1A2e	HEAVY FUEL OIL (S<0,1%)	0.554235941	t/TJ
2022	NOx	1A2e	HEAVY FUEL OIL (S<1%)	0.097640757	t/TJ
2022	NOx	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.073509686	t/TJ
2022	NOx	1A2e	LIQUEFIED NATURAL GAS (LNG)	0.153519991	t/TJ
2022	NOx	1A2e	LIQUID GAS	0.053282259	t/TJ
2022	NOx	1A2e	MILLED PEAT	0.177362654	t/TJ
2022	NOx	1A2e	NAPHTHA	0.041736147	t/TJ
2022	NOx	1A2e	NATURAL GAS	0.070000000	t/TJ

2022	NOx	1A2e	NATURAL GAS	0.047599842	t/TJ
2022	NOx	1A2e	OTHER MEDIUM DISTILLATES	0.019271646	t/TJ
2022	NOx	1A2e	OTHER NON-FOSSIL GAS	0.072550136	t/TJ
2022	NOx	1A2e	OTHER NON-FOSSIL SOLID	0.201380176	t/TJ
2022	NOx	1A2e	PEAT PELLETS AND BRIQUETTES	0.196712686	t/TJ
2022	NOx	1A2e	RECOVERED WOOD	0.140617915	t/TJ
2022	NOx	1A2e	SOD PEAT	0.077418540	t/TJ
2022	NOx	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.099955595	t/TJ
2022	NOx	1A2e	WOOD STUMP CHIPS	0.077418542	t/TJ
2022	NOx	1A2f	CHIPS FROM ROUNDWOOD	0.114921551	t/TJ
2022	NOx	1A2f	COAL (S=1.0%)	0.379748671	t/TJ
2022	NOx	1A2f	COKE (S=1.0%)	0.559424489	t/TJ
2022	NOx	1A2f	COKE OVEN GAS	0.015591574	t/TJ
2022	NOx	1A2f	CUTTER CHIPS ETC.	0.149948638	t/TJ
2022	NOx	1A2f	DIESEL OIL (S=001%)	0.096844952	t/TJ
2022	NOx	1A2f	FOREST RESIDUE CHIPS	0.120000003	t/TJ
2022	NOx	1A2f	GASOIL (FOR NON-ROAD USE)	0.102812348	t/TJ
2022	NOx	1A2f	HEAVY FUEL OIL (S<0,1%)	0.059089993	t/TJ
2022	NOx	1A2f	HEAVY FUEL OIL (S<1%)	0.122656314	t/TJ
2022	NOx	1A2f	INDUSTRIAL WASTE	0.191384175	t/TJ
2022	NOx	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.041061724	t/TJ
2022	NOx	1A2f	LIQUID GAS	0.158305930	t/TJ
2022	NOx	1A2f	MOTOR GASOLINE (S=0.001%)	0.452303490	t/TJ
2022	NOx	1A2f	NATURAL GAS	0.070000000	t/TJ
2022	NOx	1A2f	NATURAL GAS	0.102055810	t/TJ
2022	NOx	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.044390055	t/TJ
2022	NOx	1A2f	OTHER FOSSIL GAS	0.007779998	t/TJ
2022	NOx	1A2f	OTHER FOSSIL LIQUID	0.141824105	t/TJ
2022	NOx	1A2f	OTHER FUEL	0.044922045	t/TJ
2022	NOx	1A2f	OTHER HEAVY DISTILLATES	0.075880326	t/TJ
2022	NOx	1A2f	OTHER NON-FOSSIL GAS	0.069999998	t/TJ
2022	NOx	1A2f	PETROLEUM COKE	0.445732902	t/TJ
2022	NOx	1A2f	PLASTIC WASTE	0.238511742	t/TJ
2022	NOx	1A2f	RECYCLED AND WASTE OILS	0.237531019	t/TJ
2022	NOx	1A2f	RUBBER WASTE	0.669842619	t/TJ
2022	NOx	1A2f	SAWDUST	0.163444334	t/TJ
2022	NOx	1A2f	SOLID RECOVERED FUEL (SRF)	0.264221122	t/TJ
2022	NOx	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.135472184	t/TJ
2022	NOx	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.292234341	t/TJ
2022	NOx	1A2gvii	LIQUID GAS	0.532938758	t/TJ
2022	NOx	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.299381983	t/TJ
2022	NOx	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.120212070	t/TJ
2022	NOx	1A2gviii	BARK	0.077436004	t/TJ
2022	NOx	1A2gviii	BIOGAS FROM WASTEWATER TREATMENT	0.096211105	t/TJ
2022	NOx	1A2gviii	CHIPS FROM ROUNDWOOD	0.045836267	t/TJ
2022	NOx	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.448461894	t/TJ
2022	NOx	1A2gviii	CUTTER CHIPS ETC.	0.106310999	t/TJ
2022	NOx	1A2gviii	DEMOLITION WOOD	0.082900544	t/TJ
2022	NOx	1A2gviii	DIESEL OIL (S=001%)	0.102781609	t/TJ
2022	NOx	1A2gviii	FOREST RESIDUE CHIPS	0.100000000	t/TJ
2022	NOx	1A2gviii	FOREST RESIDUE CHIPS	0.052653217	t/TJ
2022	NOx	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.424073175	t/TJ
2022	NOx	1A2gviii	HAZARDOUS WASTE	0.092345834	t/TJ
2022	NOx	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.181372552	t/TJ
2022	NOx	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.112693355	t/TJ
2022	NOx	1A2gviii	HEAVY FUEL OIL (S<1%)	0.173114328	t/TJ

2022	NOx	1A2gviii	IMPREGNATED WOOD	0.124610048	t/TJ
2022	NOx	1A2gviii	LANDFILL GAS	0.120284298	t/TJ
2022	NOx	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.260304480	t/TJ
2022	NOx	1A2gviii	LIQUEFIED NATURAL GAS (LNG)	0.059507637	t/TJ
2022	NOx	1A2gviii	LIQUID GAS	0.060492072	t/TJ
2022	NOx	1A2gviii	MILLED PEAT	0.127435805	t/TJ
2022	NOx	1A2gviii	MUNICIPAL WASTE - unsorted	0.119243124	t/TJ
2022	NOx	1A2gviii	NAPHTHA	0.453367877	t/TJ
2022	NOx	1A2gviii	NATURAL GAS	0.632850083	t/TJ
2022	NOx	1A2gviii	NATURAL GAS	0.070733333	t/TJ
2022	NOx	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.076488817	t/TJ
2022	NOx	1A2gviii	OTHER HEAVY DISTILLATES	0.181180523	t/TJ
2022	NOx	1A2gviii	OTHER NON-FOSSIL GAS	0.087154408	t/TJ
2022	NOx	1A2gviii	OTHER NON-FOSSIL SOLID	0.125708345	t/TJ
2022	NOx	1A2gviii	OTHER NON-FOSSIL SOLID	0.149193467	t/TJ
2022	NOx	1A2gviii	OTHER WASTE	0.118948365	t/TJ
2022	NOx	1A2gviii	OTHER WOOD RESIDUE	0.115164985	t/TJ
2022	NOx	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.235643331	t/TJ
2022	NOx	1A2gviii	PLASTIC WASTE	0.115443457	t/TJ
2022	NOx	1A2gviii	RECOVERED WOOD	0.058254699	t/TJ
2022	NOx	1A2gviii	RECYCLED AND WASTE OILS	0.075412714	t/TJ
2022	NOx	1A2gviii	RENEWABLE DIESEL	0.099999911	t/TJ
2022	NOx	1A2gviii	SAWDUST	0.055938565	t/TJ
2022	NOx	1A2gviii	SAWDUST AND CUTTER CHIPS	0.099049351	t/TJ
2022	NOx	1A2gviii	SOD PEAT	0.076428216	t/TJ
2022	NOx	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.102194491	t/TJ
2022	NOx	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.091987964	t/TJ
2022	NOx	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.143852461	t/TJ
2022	NOx	1A2gviii	WOOD RESIDUE CHIPS	0.098945718	t/TJ
2022	NOx	1A2gviii	WOOD STUMP CHIPS	0.041902792	t/TJ
2022	NOx	1A3ai(i)	KEROSENE (JET FUEL)	0.311745394	t/TJ
2022	NOx	1A3aii(i)	AVIATION GASOLINE	0.070772906	t/TJ
2022	NOx	1A3aii(i)	KEROSENE (JET FUEL)	0.272184617	t/TJ
2022	NOx	1A3bi	DIESEL OIL (S=001%)	0.338969722	t/TJ
2022	NOx	1A3bi	MOTOR GASOLINE (S=0.001%)	0.038682516	t/TJ
2022	NOx	1A3bi	NATURAL GAS	0.023407187	t/TJ
2022	NOx	1A3bii	DIESEL OIL (S=001%)	0.347803988	t/TJ
2022	NOx	1A3bii	MOTOR GASOLINE (S=0.001%)	0.362916726	t/TJ
2022	NOx	1A3bii	NATURAL GAS	0.019906038	t/TJ
2022	NOx	1A3biii	DIESEL OIL (S=001%)	0.136109294	t/TJ
2022	NOx	1A3biii	NATURAL GAS	0.129201281	t/TJ
2022	NOx	1A3biv	DIESEL OIL (S=001%)	0.670967131	t/TJ
2022	NOx	1A3biv	MOTOR GASOLINE (S=0.001%)	0.096560013	t/TJ
2022	NOx	1A3c	GASOIL (FOR NON-ROAD USE)	1.649225161	t/TJ
2022	NOx	1A3dii	DIESEL OIL (S=001%)	1.442535213	t/TJ
2022	NOx	1A3dii	GASOIL (FOR NON-ROAD USE)	1.309264192	t/TJ
2022	NOx	1A3dii	HEAVY FUEL OIL (normal, S>1%)	1.400174967	t/TJ
2022	NOx	1A3dii	MOTOR GASOLINE (S=0.001%)	0.411112496	t/TJ
2022	NOx	1A3ei	NATURAL GAS	0.061395634	t/TJ
2022	NOx	1A4ai	FOREST WOODFUEL	0.080000000	t/TJ
2022	NOx	1A4ai	GASOIL (FOR NON-ROAD USE)	0.090877926	t/TJ
2022	NOx	1A4ai	HEAVY FUEL OIL (S<1%)	0.080000000	t/TJ
2022	NOx	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.085096932	t/TJ
2022	NOx	1A4ai	NAPHTHA	0.090324374	t/TJ
2022	NOx	1A4ai	NATURAL GAS	0.050819802	t/TJ
2022	NOx	1A4ai	NATURAL GAS	0.042352941	t/TJ

2022	NOx	1A4ai	SOD PEAT	0.123762376	t/TJ
2022	NOx	1A4aii	GASOIL (FOR NON-ROAD USE)	0.280939701	t/TJ
2022	NOx	1A4aii	MOTOR GASOLINE (S=0.001%)	0.139808116	t/TJ
2022	NOx	1A4bi	FOREST WOODFUEL	0.080000000	t/TJ
2022	NOx	1A4bi	HEAVY FUEL OIL (S<1%)	0.080000000	t/TJ
2022	NOx	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.080000000	t/TJ
2022	NOx	1A4bi	LIQUID GAS	0.050000000	t/TJ
2022	NOx	1A4bi	NATURAL GAS	0.050000000	t/TJ
2022	NOx	1A4bi	PARAFFIN	0.080000000	t/TJ
2022	NOx	1A4bi	SOD PEAT	0.100000000	t/TJ
2022	NOx	1A4bii	GASOIL (FOR NON-ROAD USE)	0.914443246	t/TJ
2022	NOx	1A4bii	MOTOR GASOLINE (S=0.001%)	0.198406734	t/TJ
2022	NOx	1A4ci	ANIMAL-BASED FUELS	2.206451580	t/TJ
2022	NOx	1A4ci	CHIPS FROM ROUNDWOOD	0.093620343	t/TJ
2022	NOx	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.119999996	t/TJ
2022	NOx	1A4ci	COAL (S=1.0%)	0.170000000	t/TJ
2022	NOx	1A4ci	FOREST WOODFUEL	0.080000000	t/TJ
2022	NOx	1A4ci	HEAVY FUEL OIL (S<1%)	0.080000000	t/TJ
2022	NOx	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.080000000	t/TJ
2022	NOx	1A4ci	LIQUID GAS	0.050000000	t/TJ
2022	NOx	1A4ci	NATURAL GAS	0.050000000	t/TJ
2022	NOx	1A4ci	OTHER NON-FOSSIL SOLID	0.102941175	t/TJ
2022	NOx	1A4ci	RECOVERED WOOD	0.090784040	t/TJ
2022	NOx	1A4ci	SOD PEAT	0.100331865	t/TJ
2022	NOx	1A4ci	WOOD RESIDUE CHIPS	2.206451540	t/TJ
2022	NOx	1A4cii	GASOIL (FOR NON-ROAD USE)	0.198676935	t/TJ
2022	NOx	1A4cii	MOTOR GASOLINE (S=0.001%)	0.074696094	t/TJ
2022	NOx	1A4ciii	GASOIL (FOR NON-ROAD USE)	1.263583085	t/TJ
2022	NOx	1A5a	AVIATION GASOLINE	0.083333333	t/TJ
2022	NOx	1A5a	FOREST WOODFUEL	0.100000000	t/TJ
2022	NOx	1A5a	KEROSENE (JET FUEL)	0.223028544	t/TJ
2022	NOx	1A5a	LANDFILL GAS	0.050000000	t/TJ
2022	NOx	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.173109218	t/TJ
2022	NOx	1A5a	LIQUID GAS	0.050000000	t/TJ
2022	NOx	1A5a	OTHER PETROLEUM PRODUCTS	0.080000000	t/TJ

#### NM VOC Implied emission factors in Finnish air pollutant inventory for 2022

2022	NM VOC	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.008038992	t/TJ
2022	NM VOC	1A1a	ANIMAL-BASED FUELS	0.003000000	t/TJ
2022	NM VOC	1A1a	ASPHALTENE	0.001000000	t/TJ
2022	NM VOC	1A1a	BARK	0.005703178	t/TJ
2022	NM VOC	1A1a	BIO PYROLYSIS OIL	0.001000000	t/TJ
2022	NM VOC	1A1a	BIO-FUEL OIL	0.001000000	t/TJ
2022	NM VOC	1A1a	BLAST FURNACE GAS	0.001000000	t/TJ
2022	NM VOC	1A1a	CHIPS FROM ROUNDWOOD	0.007498104	t/TJ
2022	NM VOC	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.004478782	t/TJ
2022	NM VOC	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.019329102	t/TJ
2022	NM VOC	1A1a	COAL (S=1.0%)	0.004042261	t/TJ
2022	NM VOC	1A1a	COKE OVEN GAS	0.001000000	t/TJ
2022	NM VOC	1A1a	CUTTER CHIPS ETC.	0.004192036	t/TJ
2022	NM VOC	1A1a	DEINKING WASTE	0.003000002	t/TJ
2022	NM VOC	1A1a	DEMOLITION WOOD	0.014272238	t/TJ
2022	NM VOC	1A1a	DIESEL OIL (S=0.001%)	0.001000009	t/TJ
2022	NM VOC	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.050000000	t/TJ
2022	NM VOC	1A1a	FOREST RESIDUE CHIPS	0.035670875	t/TJ

2022	NMVOC	1A1a	FOREST RESIDUE CHIPS	0.020750361	t/TJ
2022	NMVOC	1A1a	GASOIL (FOR NON-ROAD USE)	0.001719787	t/TJ
2022	NMVOC	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.002558563	t/TJ
2022	NMVOC	1A1a	HEAVY FUEL OIL (S<0,1%)	0.001170648	t/TJ
2022	NMVOC	1A1a	HEAVY FUEL OIL (S<0,5%)	0.001429596	t/TJ
2022	NMVOC	1A1a	HEAVY FUEL OIL (S<1%)	0.004277891	t/TJ
2022	NMVOC	1A1a	HYDROGEN	0.001000001	t/TJ
2022	NMVOC	1A1a	IMPREGNATED WOOD	0.010823395	t/TJ
2022	NMVOC	1A1a	INDUSTRIAL WASTE	0.034508167	t/TJ
2022	NMVOC	1A1a	LANDFILL GAS	0.001883218	t/TJ
2022	NMVOC	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.001767989	t/TJ
2022	NMVOC	1A1a	LIGNIN	0.003000000	t/TJ
2022	NMVOC	1A1a	LIQUEFIED NATURAL GAS (LNG)	0.001000004	t/TJ
2022	NMVOC	1A1a	LIQUID GAS	0.001612638	t/TJ
2022	NMVOC	1A1a	MILLED PEAT	0.003088617	t/TJ
2022	NMVOC	1A1a	MOTOR GASOLINE (S=0.001%)	0.001000003	t/TJ
2022	NMVOC	1A1a	MUNICIPAL WASTE - unsorted	0.018357629	t/TJ
2022	NMVOC	1A1a	NATURAL GAS	0.002570786	t/TJ
2022	NMVOC	1A1a	NATURAL GAS	0.001000000	t/TJ
2022	NMVOC	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.002994391	t/TJ
2022	NMVOC	1A1a	OTHER FOSSIL GAS	0.000254374	t/TJ
2022	NMVOC	1A1a	OTHER FOSSIL SOLID	0.018343962	t/TJ
2022	NMVOC	1A1a	OTHER FUEL	0.003000000	t/TJ
2022	NMVOC	1A1a	OTHER MEDIUM DISTILLATES	0.001000000	t/TJ
2022	NMVOC	1A1a	OTHER NON-FOSSIL GAS	0.001000000	t/TJ
2022	NMVOC	1A1a	OTHER NON-FOSSIL SOLID	0.006813607	t/TJ
2022	NMVOC	1A1a	OTHER NON-FOSSIL SOLID	0.009863800	t/TJ
2022	NMVOC	1A1a	OTHER NON-FOSSIL SOLID	0.004000000	t/TJ
2022	NMVOC	1A1a	OTHER WASTE	0.016835316	t/TJ
2022	NMVOC	1A1a	OTHER WOOD RESIDUE	0.000448459	t/TJ
2022	NMVOC	1A1a	PAPER	0.010000000	t/TJ
2022	NMVOC	1A1a	RECOVERED FUEL (REF 2)	0.050000000	t/TJ
2022	NMVOC	1A1a	RECOVERED WOOD	0.015764322	t/TJ
2022	NMVOC	1A1a	RECYCLED AND WASTE OILS	0.003000001	t/TJ
2022	NMVOC	1A1a	RENEWABLE DIESEL	0.001000000	t/TJ
2022	NMVOC	1A1a	SAWDUST	0.004082263	t/TJ
2022	NMVOC	1A1a	SOD PEAT	0.013671737	t/TJ
2022	NMVOC	1A1a	SOLID RECOVERED FUEL (SRF)	0.017120140	t/TJ
2022	NMVOC	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.009875171	t/TJ
2022	NMVOC	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.029140899	t/TJ
2022	NMVOC	1A1a	WOOD RESIDUE CHIPS	0.037238444	t/TJ
2022	NMVOC	1A1a	WOOD STUMP CHIPS	0.028930299	t/TJ
2022	NMVOC	1A1b	COKE (S=1.0%)	0.001000000	t/TJ
2022	NMVOC	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.006701297	t/TJ
2022	NMVOC	1A1b	NATURAL GAS	0.000851540	t/TJ
2022	NMVOC	1A1b	NATURAL GAS	0.003124573	t/TJ
2022	NMVOC	1A1b	OTHER FOSSIL GAS	0.001000001	t/TJ
2022	NMVOC	1A1b	OTHER FOSSIL LIQUID	0.006701994	t/TJ
2022	NMVOC	1A1b	OTHER MEDIUM DISTILLATES	0.006694291	t/TJ
2022	NMVOC	1A1b	OTHER NON-FOSSIL GAS	0.001000000	t/TJ
2022	NMVOC	1A1b	PETROLEUM COKE	0.004000000	t/TJ
2022	NMVOC	1A1b	REFINERY GAS	0.001000000	t/TJ
2022	NMVOC	1A1b	REFINERY GASES	0.000739616	t/TJ
2022	NMVOC	1A1b	SULPHUR CONCENTRATE	0.013385571	t/TJ
2022	NMVOC	1A2a	BLAST FURNACE GAS	0.000879378	t/TJ
2022	NMVOC	1A2a	COKE OVEN GAS	0.000547358	t/TJ

2022	NMVOC	1A2a	DIESEL OIL (S=001%)	0.001000000	t/TJ
2022	NMVOC	1A2a	GASOIL (FOR NON-ROAD USE)	0.001000000	t/TJ
2022	NMVOC	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.001000000	t/TJ
2022	NMVOC	1A2a	LIQUID GAS	0.000346534	t/TJ
2022	NMVOC	1A2a	NATURAL GAS	0.000585934	t/TJ
2022	NMVOC	1A2a	WOOD RESIDUE CHIPS	0.050000000	t/TJ
2022	NMVOC	1A2b	COAL (S=1.0%)	0.003999997	t/TJ
2022	NMVOC	1A2b	COKE (S=1.0%)	0.001000000	t/TJ
2022	NMVOC	1A2b	HEAVY FUEL OIL (S<1%)	0.000683801	t/TJ
2022	NMVOC	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.001070489	t/TJ
2022	NMVOC	1A2b	LIQUEFIED NATURAL GAS (LNG)	0.001000000	t/TJ
2022	NMVOC	1A2b	LIQUID GAS	0.002872317	t/TJ
2022	NMVOC	1A2b	NATURAL GAS	0.001000001	t/TJ
2022	NMVOC	1A2b	OTHER HEAVY DISTILLATES	0.001000000	t/TJ
2022	NMVOC	1A2c	GASIFIED WASTE	0.003999997	t/TJ
2022	NMVOC	1A2c	GASOIL (FOR NON-ROAD USE)	0.001000000	t/TJ
2022	NMVOC	1A2c	HEAVY FUEL OIL (S<0,1%)	0.002212121	t/TJ
2022	NMVOC	1A2c	HEAVY FUEL OIL (S<1%)	0.000932092	t/TJ
2022	NMVOC	1A2c	HYDROGEN	0.001000000	t/TJ
2022	NMVOC	1A2c	LANDFILL GAS	0.093056900	t/TJ
2022	NMVOC	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.000866376	t/TJ
2022	NMVOC	1A2c	LIQUEFIED NATURAL GAS (LNG)	0.000891594	t/TJ
2022	NMVOC	1A2c	LIQUID GAS	0.000298628	t/TJ
2022	NMVOC	1A2c	NATURAL GAS	0.001000000	t/TJ
2022	NMVOC	1A2c	OTHER FOSSIL GAS	0.001000000	t/TJ
2022	NMVOC	1A2c	OTHER MEDIUM DISTILLATES	0.001000000	t/TJ
2022	NMVOC	1A2c	TALL PITCH AND OIL	0.000993615	t/TJ
2022	NMVOC	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.024903476	t/TJ
2022	NMVOC	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.009557543	t/TJ
2022	NMVOC	1A2d	ANIMAL-BASED FUELS	0.003000000	t/TJ
2022	NMVOC	1A2d	AROMATIC GAS	0.000872929	t/TJ
2022	NMVOC	1A2d	BARK	0.002659411	t/TJ
2022	NMVOC	1A2d	BIOGAS FROM WASTEWATER TREATMENT	0.001000000	t/TJ
2022	NMVOC	1A2d	BIOLOGICAL SLURRY	0.003000002	t/TJ
2022	NMVOC	1A2d	BLACK LIQUOR	0.000972631	t/TJ
2022	NMVOC	1A2d	CHIPS FROM ROUNDWOOD	0.003478370	t/TJ
2022	NMVOC	1A2d	COAL (S=1.0%)	0.003000000	t/TJ
2022	NMVOC	1A2d	CUTTER CHIPS ETC.	0.004000000	t/TJ
2022	NMVOC	1A2d	DEMOLITION WOOD	0.003000000	t/TJ
2022	NMVOC	1A2d	FOREST RESIDUE CHIPS	0.003027809	t/TJ
2022	NMVOC	1A2d	GASOIL (FOR NON-ROAD USE)	0.000981229	t/TJ
2022	NMVOC	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.000999999	t/TJ
2022	NMVOC	1A2d	HEAVY FUEL OIL (S<0,1%)	0.000854315	t/TJ
2022	NMVOC	1A2d	HEAVY FUEL OIL (S<1%)	0.001187738	t/TJ
2022	NMVOC	1A2d	HYDROGEN	0.001000000	t/TJ
2022	NMVOC	1A2d	IMPREGNATED WOOD	0.003000000	t/TJ
2022	NMVOC	1A2d	INDUSTRIAL WASTE	0.008629801	t/TJ
2022	NMVOC	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.001283369	t/TJ
2022	NMVOC	1A2d	LIQUEFIED NATURAL GAS (LNG)	0.001000000	t/TJ
2022	NMVOC	1A2d	LIQUID GAS	0.001000218	t/TJ
2022	NMVOC	1A2d	METHANOL	0.000975231	t/TJ
2022	NMVOC	1A2d	MILLED PEAT	0.002748715	t/TJ
2022	NMVOC	1A2d	NATURAL GAS	0.000967249	t/TJ
2022	NMVOC	1A2d	NATURAL GAS	0.001000000	t/TJ
2022	NMVOC	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.003000000	t/TJ
2022	NMVOC	1A2d	OTHER FUEL	0.172432150	t/TJ

2022	NMVOC	1A2d	OTHER NON-FOSSIL GAS	0.001000000	t/TJ
2022	NMVOC	1A2d	OTHER WOOD RESIDUE	0.010000000	t/TJ
2022	NMVOC	1A2d	PAPER	0.010000000	t/TJ
2022	NMVOC	1A2d	PLASTIC WASTE	0.002999710	t/TJ
2022	NMVOC	1A2d	RECOVERED WOOD	0.003000004	t/TJ
2022	NMVOC	1A2d	RECYCLED AND WASTE OILS	0.003000000	t/TJ
2022	NMVOC	1A2d	SAWDUST	0.003998413	t/TJ
2022	NMVOC	1A2d	SOLID RECOVERED FUEL (SRF)	0.010000000	t/TJ
2022	NMVOC	1A2d	TALL PITCH AND OIL	0.001015766	t/TJ
2022	NMVOC	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.009999986	t/TJ
2022	NMVOC	1A2d	WOOD RESIDUE CHIPS	0.003974451	t/TJ
2022	NMVOC	1A2d	WOOD STUMP CHIPS	0.049999998	t/TJ
2022	NMVOC	1A2e	ANIMAL FATS AND OILS	0.004000000	t/TJ
2022	NMVOC	1A2e	ANIMAL-BASED FUELS	0.050000000	t/TJ
2022	NMVOC	1A2e	BIO-FUEL OIL	0.001000000	t/TJ
2022	NMVOC	1A2e	BIOGAS FROM WASTEWATER TREATMENT	0.001000000	t/TJ
2022	NMVOC	1A2e	CHIPS FROM ROUNDWOOD	0.004000000	t/TJ
2022	NMVOC	1A2e	COAL (S=1.0%)	0.003999997	t/TJ
2022	NMVOC	1A2e	COKE (S=1.0%)	0.003999999	t/TJ
2022	NMVOC	1A2e	FOREST RESIDUE CHIPS	0.049999999	t/TJ
2022	NMVOC	1A2e	GASOIL (FOR NON-ROAD USE)	0.001098801	t/TJ
2022	NMVOC	1A2e	HEAVY FUEL OIL (S<0,1%)	0.001000000	t/TJ
2022	NMVOC	1A2e	HEAVY FUEL OIL (S<1%)	0.001000000	t/TJ
2022	NMVOC	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.001336851	t/TJ
2022	NMVOC	1A2e	LIQUEFIED NATURAL GAS (LNG)	0.001000000	t/TJ
2022	NMVOC	1A2e	LIQUID GAS	0.001000000	t/TJ
2022	NMVOC	1A2e	MILLED PEAT	0.009578016	t/TJ
2022	NMVOC	1A2e	NAPHTHA	0.001000000	t/TJ
2022	NMVOC	1A2e	NATURAL GAS	0.001000000	t/TJ
2022	NMVOC	1A2e	NATURAL GAS	0.001000000	t/TJ
2022	NMVOC	1A2e	OTHER MEDIUM DISTILLATES	0.001000000	t/TJ
2022	NMVOC	1A2e	OTHER NON-FOSSIL GAS	0.001000000	t/TJ
2022	NMVOC	1A2e	OTHER NON-FOSSIL SOLID	0.010000000	t/TJ
2022	NMVOC	1A2e	PEAT PELLETS AND BRIQUETTES	0.004000000	t/TJ
2022	NMVOC	1A2e	RECOVERED WOOD	0.003000002	t/TJ
2022	NMVOC	1A2e	SOD PEAT	0.050000000	t/TJ
2022	NMVOC	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.050000000	t/TJ
2022	NMVOC	1A2e	WOOD STUMP CHIPS	0.050000001	t/TJ
2022	NMVOC	1A2f	CHIPS FROM ROUNDWOOD	0.050000001	t/TJ
2022	NMVOC	1A2f	COAL (S=1.0%)	0.001409513	t/TJ
2022	NMVOC	1A2f	COKE OVEN GAS	0.001000000	t/TJ
2022	NMVOC	1A2f	CUTTER CHIPS ETC.	0.004000000	t/TJ
2022	NMVOC	1A2f	DIESEL OIL (S=001%)	0.001000000	t/TJ
2022	NMVOC	1A2f	FOREST RESIDUE CHIPS	0.050000001	t/TJ
2022	NMVOC	1A2f	GASOIL (FOR NON-ROAD USE)	0.001014451	t/TJ
2022	NMVOC	1A2f	HEAVY FUEL OIL (S<0,1%)	0.001000000	t/TJ
2022	NMVOC	1A2f	HEAVY FUEL OIL (S<1%)	0.001000000	t/TJ
2022	NMVOC	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.001000001	t/TJ
2022	NMVOC	1A2f	LIQUID GAS	0.000531073	t/TJ
2022	NMVOC	1A2f	MOTOR GASOLINE (S=0.001%)	0.000856187	t/TJ
2022	NMVOC	1A2f	NATURAL GAS	0.001000000	t/TJ
2022	NMVOC	1A2f	NATURAL GAS	0.000670990	t/TJ
2022	NMVOC	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.003000000	t/TJ
2022	NMVOC	1A2f	OTHER FOSSIL GAS	0.001000000	t/TJ
2022	NMVOC	1A2f	OTHER FOSSIL LIQUID	0.001000000	t/TJ
2022	NMVOC	1A2f	OTHER FUEL	0.003000000	t/TJ

2022	NMVOC	1A2f	OTHER HEAVY DISTILLATES	0.001000000	t/TJ
2022	NMVOC	1A2f	OTHER NON-FOSSIL GAS	0.000835631	t/TJ
2022	NMVOC	1A2f	PETROLEUM COKE	0.001000000	t/TJ
2022	NMVOC	1A2f	PLASTIC WASTE	0.002732409	t/TJ
2022	NMVOC	1A2f	RECYCLED AND WASTE OILS	0.000969329	t/TJ
2022	NMVOC	1A2f	SAWDUST	0.004000000	t/TJ
2022	NMVOC	1A2f	SOLID RECOVERED FUEL (SRF)	0.006781803	t/TJ
2022	NMVOC	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.050000043	t/TJ
2022	NMVOC	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.049065687	t/TJ
2022	NMVOC	1A2gvii	LIQUID GAS	0.796080971	t/TJ
2022	NMVOC	1A2gvii	MOTOR GASOLINE (S=0.001%)	1.068032017	t/TJ
2022	NMVOC	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.010000000	t/TJ
2022	NMVOC	1A2gviii	BARK	0.018163525	t/TJ
2022	NMVOC	1A2gviii	BIOGAS FROM WASTEWATER TREATMENT	0.002129428	t/TJ
2022	NMVOC	1A2gviii	CHIPS FROM ROUNDWOOD	0.002487622	t/TJ
2022	NMVOC	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.000095671	t/TJ
2022	NMVOC	1A2gviii	CUTTER CHIPS ETC.	0.003643363	t/TJ
2022	NMVOC	1A2gviii	DEMOLITION WOOD	0.001638492	t/TJ
2022	NMVOC	1A2gviii	DIESEL OIL (S=0.001%)	0.000989834	t/TJ
2022	NMVOC	1A2gviii	FOREST RESIDUE CHIPS	0.020205712	t/TJ
2022	NMVOC	1A2gviii	FOREST RESIDUE CHIPS	0.050000000	t/TJ
2022	NMVOC	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.002107841	t/TJ
2022	NMVOC	1A2gviii	HAZARDOUS WASTE	0.010000000	t/TJ
2022	NMVOC	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.001000000	t/TJ
2022	NMVOC	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.001000000	t/TJ
2022	NMVOC	1A2gviii	HEAVY FUEL OIL (S<1%)	0.001812495	t/TJ
2022	NMVOC	1A2gviii	IMPREGNATED WOOD	0.003000005	t/TJ
2022	NMVOC	1A2gviii	LANDFILL GAS	0.009354287	t/TJ
2022	NMVOC	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.013101908	t/TJ
2022	NMVOC	1A2gviii	LIQUEFIED NATURAL GAS (LNG)	0.000457168	t/TJ
2022	NMVOC	1A2gviii	LIQUID GAS	0.001586221	t/TJ
2022	NMVOC	1A2gviii	MILLED PEAT	0.002347371	t/TJ
2022	NMVOC	1A2gviii	MUNICIPAL WASTE - unsorted	0.003501081	t/TJ
2022	NMVOC	1A2gviii	NAPHTHA	0.001000000	t/TJ
2022	NMVOC	1A2gviii	NATURAL GAS	0.000801926	t/TJ
2022	NMVOC	1A2gviii	NATURAL GAS	0.002197778	t/TJ
2022	NMVOC	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.003000000	t/TJ
2022	NMVOC	1A2gviii	OTHER HEAVY DISTILLATES	0.001000000	t/TJ
2022	NMVOC	1A2gviii	OTHER NON-FOSSIL GAS	0.000981855	t/TJ
2022	NMVOC	1A2gviii	OTHER NON-FOSSIL SOLID	0.010000000	t/TJ
2022	NMVOC	1A2gviii	OTHER NON-FOSSIL SOLID	0.009989402	t/TJ
2022	NMVOC	1A2gviii	OTHER WASTE	0.003000000	t/TJ
2022	NMVOC	1A2gviii	OTHER WOOD RESIDUE	0.010000000	t/TJ
2022	NMVOC	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.003000000	t/TJ
2022	NMVOC	1A2gviii	PLASTIC WASTE	0.002999998	t/TJ
2022	NMVOC	1A2gviii	RECOVERED WOOD	0.003998554	t/TJ
2022	NMVOC	1A2gviii	RECYCLED AND WASTE OILS	0.001000000	t/TJ
2022	NMVOC	1A2gviii	SAWDUST	0.001162677	t/TJ
2022	NMVOC	1A2gviii	SAWDUST AND CUTTER CHIPS	0.037583353	t/TJ
2022	NMVOC	1A2gviii	SOD PEAT	0.022653002	t/TJ
2022	NMVOC	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.005095100	t/TJ
2022	NMVOC	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.013153771	t/TJ
2022	NMVOC	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.056887478	t/TJ
2022	NMVOC	1A2gviii	WOOD RESIDUE CHIPS	0.034646485	t/TJ
2022	NMVOC	1A2gviii	WOOD STUMP CHIPS	0.004291241	t/TJ
2022	NMVOC	1A3ai(i)	KEROSENE (JET FUEL)	0.033269251	t/TJ

2022	NMVOC	1A3aii(i)	AVIATION GASOLINE	0.482695249	t/TJ
2022	NMVOC	1A3aii(i)	KEROSENE (JET FUEL)	0.034775017	t/TJ
2022	NMVOC	1A3bi	DIESEL OIL (S=001%)	0.003311104	t/TJ
2022	NMVOC	1A3bi	MOTOR GASOLINE (S=0.001%)	0.020712853	t/TJ
2022	NMVOC	1A3bi	NATURAL GAS	0.011125037	t/TJ
2022	NMVOC	1A3bii	DIESEL OIL (S=001%)	0.017709680	t/TJ
2022	NMVOC	1A3bii	MOTOR GASOLINE (S=0.001%)	0.116285379	t/TJ
2022	NMVOC	1A3bii	NATURAL GAS	0.009467228	t/TJ
2022	NMVOC	1A3biii	DIESEL OIL (S=001%)	0.003945124	t/TJ
2022	NMVOC	1A3biii	NATURAL GAS	0.010293890	t/TJ
2022	NMVOC	1A3biv	DIESEL OIL (S=001%)	0.134079057	t/TJ
2022	NMVOC	1A3biv	MOTOR GASOLINE (S=0.001%)	0.598092075	t/TJ
2022	NMVOC	1A3c	GASOIL (FOR NON-ROAD USE)	0.092554985	t/TJ
2022	NMVOC	1A3dii	DIESEL OIL (S=001%)	0.081391517	t/TJ
2022	NMVOC	1A3dii	GASOIL (FOR NON-ROAD USE)	0.053448087	t/TJ
2022	NMVOC	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.061960314	t/TJ
2022	NMVOC	1A3dii	MOTOR GASOLINE (S=0.001%)	1.953944819	t/TJ
2022	NMVOC	1A3ei	NATURAL GAS	0.001000000	t/TJ
2022	NMVOC	1A4ai	FOREST WOODFUEL	0.003000000	t/TJ
2022	NMVOC	1A4ai	GASOIL (FOR NON-ROAD USE)	0.000333603	t/TJ
2022	NMVOC	1A4ai	HEAVY FUEL OIL (S<1%)	0.005000000	t/TJ
2022	NMVOC	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.004984218	t/TJ
2022	NMVOC	1A4ai	NAPHTHA	0.001000000	t/TJ
2022	NMVOC	1A4ai	NATURAL GAS	0.004836040	t/TJ
2022	NMVOC	1A4ai	NATURAL GAS	0.001000000	t/TJ
2022	NMVOC	1A4ai	SOD PEAT	0.164356436	t/TJ
2022	NMVOC	1A4aii	GASOIL (FOR NON-ROAD USE)	0.045330941	t/TJ
2022	NMVOC	1A4aii	MOTOR GASOLINE (S=0.001%)	0.427719680	t/TJ
2022	NMVOC	1A4bi	FOREST WOODFUEL	0.371135143	t/TJ
2022	NMVOC	1A4bi	HEAVY FUEL OIL (S<1%)	0.005000000	t/TJ
2022	NMVOC	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.005000000	t/TJ
2022	NMVOC	1A4bi	LIQUID GAS	0.005000000	t/TJ
2022	NMVOC	1A4bi	NATURAL GAS	0.005000000	t/TJ
2022	NMVOC	1A4bi	PARAFFIN	0.005000000	t/TJ
2022	NMVOC	1A4bi	SOD PEAT	0.200000000	t/TJ
2022	NMVOC	1A4bii	GASOIL (FOR NON-ROAD USE)	0.164792234	t/TJ
2022	NMVOC	1A4bii	MOTOR GASOLINE (S=0.001%)	1.284510416	t/TJ
2022	NMVOC	1A4ci	ANIMAL-BASED FUELS	0.003000000	t/TJ
2022	NMVOC	1A4ci	CHIPS FROM ROUNDWOOD	0.004000000	t/TJ
2022	NMVOC	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.049999998	t/TJ
2022	NMVOC	1A4ci	COAL (S=1.0%)	0.004000000	t/TJ
2022	NMVOC	1A4ci	FOREST WOODFUEL	0.003000000	t/TJ
2022	NMVOC	1A4ci	HEAVY FUEL OIL (S<1%)	0.005000000	t/TJ
2022	NMVOC	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.005000000	t/TJ
2022	NMVOC	1A4ci	LIQUID GAS	0.005000000	t/TJ
2022	NMVOC	1A4ci	NATURAL GAS	0.005000000	t/TJ
2022	NMVOC	1A4ci	OTHER NON-FOSSIL SOLID	0.010000000	t/TJ
2022	NMVOC	1A4ci	RECOVERED WOOD	0.003000000	t/TJ
2022	NMVOC	1A4ci	SOD PEAT	0.196260072	t/TJ
2022	NMVOC	1A4ci	WOOD RESIDUE CHIPS	0.049999998	t/TJ
2022	NMVOC	1A4cii	GASOIL (FOR NON-ROAD USE)	0.038669672	t/TJ
2022	NMVOC	1A4cii	MOTOR GASOLINE (S=0.001%)	2.650876101	t/TJ
2022	NMVOC	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.059173426	t/TJ
2022	NMVOC	1A5a	AVIATION GASOLINE	0.312500000	t/TJ
2022	NMVOC	1A5a	FOREST WOODFUEL	0.010000000	t/TJ
2022	NMVOC	1A5a	KEROSENE (JET FUEL)	0.023222061	t/TJ

2022	NM VOC	1A5a	LANDFILL GAS	0.005000000	t/TJ
2022	NM VOC	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.008190323	t/TJ
2022	NM VOC	1A5a	LIQUID GAS	0.005000000	t/TJ
2022	NM VOC	1A5a	OTHER PETROLEUM PRODUCTS	0.005000000	t/TJ

#### SO2 Implied emission factors in Finnish air pollutant inventory for 2022

2022	SO2	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.012909717	t/TJ
2022	SO2	1A1a	ANIMAL-BASED FUELS	0.085757530	t/TJ
2022	SO2	1A1a	ANTHRACITE	0.063225909	t/TJ
2022	SO2	1A1a	ASPHALTENE	0.125760521	t/TJ
2022	SO2	1A1a	BARK	0.012857580	t/TJ
2022	SO2	1A1a	BIO PYROLYSIS OIL	0.012451290	t/TJ
2022	SO2	1A1a	BIO-FUEL OIL	0.141412235	t/TJ
2022	SO2	1A1a	BLAST FURNACE GAS	0.000030449	t/TJ
2022	SO2	1A1a	CHIPS FROM ROUNDWOOD	0.006343004	t/TJ
2022	SO2	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.014303704	t/TJ
2022	SO2	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.007720106	t/TJ
2022	SO2	1A1a	COAL (S=1.0%)	0.080433881	t/TJ
2022	SO2	1A1a	COKE OVEN GAS	0.130497173	t/TJ
2022	SO2	1A1a	CUTTER CHIPS ETC.	0.008222415	t/TJ
2022	SO2	1A1a	DEINKING WASTE	0.011743739	t/TJ
2022	SO2	1A1a	DEMOLITION WOOD	0.019359892	t/TJ
2022	SO2	1A1a	DIESEL OIL (S=001%)	0.103001677	t/TJ
2022	SO2	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.019399088	t/TJ
2022	SO2	1A1a	FOREST RESIDUE CHIPS	0.007489027	t/TJ
2022	SO2	1A1a	FOREST RESIDUE CHIPS	0.018395172	t/TJ
2022	SO2	1A1a	GASOIL (FOR NON-ROAD USE)	0.024317523	t/TJ
2022	SO2	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.153881624	t/TJ
2022	SO2	1A1a	HEAVY FUEL OIL (S<0,1%)	0.019824520	t/TJ
2022	SO2	1A1a	HEAVY FUEL OIL (S<0,5%)	0.177042127	t/TJ
2022	SO2	1A1a	HEAVY FUEL OIL (S<1%)	0.115857773	t/TJ
2022	SO2	1A1a	HYDROGEN	0.000000205	t/TJ
2022	SO2	1A1a	IMPREGNATED WOOD	0.061568429	t/TJ
2022	SO2	1A1a	INDUSTRIAL WASTE	0.016448427	t/TJ
2022	SO2	1A1a	LANDFILL GAS	0.010154630	t/TJ
2022	SO2	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.033343908	t/TJ
2022	SO2	1A1a	LIGNIN	0.018743004	t/TJ
2022	SO2	1A1a	LIQUEFIED NATURAL GAS (LNG)	0.000000805	t/TJ
2022	SO2	1A1a	LIQUID GAS	0.000167813	t/TJ
2022	SO2	1A1a	MILLED PEAT	0.067429399	t/TJ
2022	SO2	1A1a	MOTOR GASOLINE (S=0.001%)	0.042999982	t/TJ
2022	SO2	1A1a	MUNICIPAL WASTE - unsorted	0.002699008	t/TJ
2022	SO2	1A1a	NATURAL GAS	0.000040000	t/TJ
2022	SO2	1A1a	NATURAL GAS	0.000046041	t/TJ
2022	SO2	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.006014039	t/TJ
2022	SO2	1A1a	OTHER FOSSIL GAS	0.007510217	t/TJ
2022	SO2	1A1a	OTHER FOSSIL SOLID	0.014827561	t/TJ
2022	SO2	1A1a	OTHER FUEL	0.001763552	t/TJ
2022	SO2	1A1a	OTHER MEDIUM DISTILLATES	0.427705356	t/TJ
2022	SO2	1A1a	OTHER NON-FOSSIL GAS	0.012826315	t/TJ
2022	SO2	1A1a	OTHER NON-FOSSIL SOLID	0.077031823	t/TJ
2022	SO2	1A1a	OTHER NON-FOSSIL SOLID	0.005720249	t/TJ
2022	SO2	1A1a	OTHER NON-FOSSIL SOLID	0.037555984	t/TJ
2022	SO2	1A1a	OTHER WASTE	0.018416214	t/TJ
2022	SO2	1A1a	OTHER WOOD RESIDUE	0.020625796	t/TJ

2022	SO2	1A1a	PAPER	0.007169001	t/TJ
2022	SO2	1A1a	RECOVERED FUEL (REF 2)	0.130000000	t/TJ
2022	SO2	1A1a	RECOVERED WOOD	0.039565077	t/TJ
2022	SO2	1A1a	RECYCLED AND WASTE OILS	0.116074638	t/TJ
2022	SO2	1A1a	RENEWABLE DIESEL	0.000470000	t/TJ
2022	SO2	1A1a	SAWDUST	0.010229205	t/TJ
2022	SO2	1A1a	SOD PEAT	0.141175936	t/TJ
2022	SO2	1A1a	SOLID RECOVERED FUEL (SRF)	0.026329329	t/TJ
2022	SO2	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.004138517	t/TJ
2022	SO2	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.001914653	t/TJ
2022	SO2	1A1a	WOOD RESIDUE CHIPS	0.005129855	t/TJ
2022	SO2	1A1a	WOOD STUMP CHIPS	0.010357231	t/TJ
2022	SO2	1A1b	COKE (S=1.0%)	0.199152273	t/TJ
2022	SO2	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.000801034	t/TJ
2022	SO2	1A1b	NATURAL GAS	0.142853073	t/TJ
2022	SO2	1A1b	NATURAL GAS	0.017160650	t/TJ
2022	SO2	1A1b	OTHER FOSSIL GAS	0.001740098	t/TJ
2022	SO2	1A1b	OTHER FOSSIL LIQUID	0.012531192	t/TJ
2022	SO2	1A1b	OTHER MEDIUM DISTILLATES	0.001001220	t/TJ
2022	SO2	1A1b	OTHER NON-FOSSIL GAS	0.004702973	t/TJ
2022	SO2	1A1b	PETROLEUM COKE	0.056732574	t/TJ
2022	SO2	1A1b	REFINERY GAS	0.003072526	t/TJ
2022	SO2	1A1b	REFINERY GASES	0.097660289	t/TJ
2022	SO2	1A1b	SULPHUR CONCENTRATE	0.177178011	t/TJ
2022	SO2	1A2a	BLAST FURNACE GAS	0.000008737	t/TJ
2022	SO2	1A2a	COKE (S=1.0%)	0.267207744	t/TJ
2022	SO2	1A2a	COKE OVEN GAS	0.011847292	t/TJ
2022	SO2	1A2a	DIESEL OIL (S=0.001%)	0.000470000	t/TJ
2022	SO2	1A2a	GASOIL (FOR NON-ROAD USE)	0.047565657	t/TJ
2022	SO2	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.049452916	t/TJ
2022	SO2	1A2a	LIQUID GAS	0.000004208	t/TJ
2022	SO2	1A2a	NATURAL GAS	0.000068454	t/TJ
2022	SO2	1A2a	OTHER FOSSIL SOLID	0.018225562	t/TJ
2022	SO2	1A2a	WOOD RESIDUE CHIPS	0.028424427	t/TJ
2022	SO2	1A2b	COAL (S=1.0%)	11.082738857	t/TJ
2022	SO2	1A2b	COKE (S=1.0%)	8.485287584	t/TJ
2022	SO2	1A2b	HEAVY FUEL OIL (S<1%)	2.846587816	t/TJ
2022	SO2	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.077853998	t/TJ
2022	SO2	1A2b	LIQUEFIED NATURAL GAS (LNG)	0.000009000	t/TJ
2022	SO2	1A2b	LIQUID GAS	0.003321892	t/TJ
2022	SO2	1A2b	NATURAL GAS	0.000040619	t/TJ
2022	SO2	1A2b	OTHER HEAVY DISTILLATES	8.584673703	t/TJ
2022	SO2	1A2c	DIESEL OIL (S=0.001%)	0.000470000	t/TJ
2022	SO2	1A2c	GASIFIED WASTE	0.000509072	t/TJ
2022	SO2	1A2c	GASOIL (FOR NON-ROAD USE)	0.038520196	t/TJ
2022	SO2	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.115525488	t/TJ
2022	SO2	1A2c	HEAVY FUEL OIL (S<0,1%)	0.141239365	t/TJ
2022	SO2	1A2c	HEAVY FUEL OIL (S<1%)	0.539333902	t/TJ
2022	SO2	1A2c	HYDROGEN	0.000000200	t/TJ
2022	SO2	1A2c	LANDFILL GAS	0.017000001	t/TJ
2022	SO2	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.159007751	t/TJ
2022	SO2	1A2c	LIQUEFIED NATURAL GAS (LNG)	0.000035891	t/TJ
2022	SO2	1A2c	LIQUID GAS	0.000003952	t/TJ
2022	SO2	1A2c	NATURAL GAS	0.000034088	t/TJ
2022	SO2	1A2c	OTHER FOSSIL GAS	0.003700000	t/TJ
2022	SO2	1A2c	OTHER FOSSIL LIQUID	0.015516940	t/TJ

2022	SO2	1A2c	OTHER MEDIUM DISTILLATES	0.045201964	t/TJ
2022	SO2	1A2c	TALL PITCH AND OIL	0.015509542	t/TJ
2022	SO2	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.010000000	t/TJ
2022	SO2	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.015027484	t/TJ
2022	SO2	1A2d	ANIMAL-BASED FUELS	0.014852547	t/TJ
2022	SO2	1A2d	AROMATIC GAS	0.380329747	t/TJ
2022	SO2	1A2d	BARK	0.015304890	t/TJ
2022	SO2	1A2d	BIOGAS FROM WASTEWATER TREATMENT	0.000029287	t/TJ
2022	SO2	1A2d	BIOLOGICAL SLURRY	0.034623468	t/TJ
2022	SO2	1A2d	BLACK LIQUOR	0.003219297	t/TJ
2022	SO2	1A2d	CHIPS FROM ROUNDWOOD	0.001644131	t/TJ
2022	SO2	1A2d	COAL (S=1.0%)	0.118755485	t/TJ
2022	SO2	1A2d	CUTTER CHIPS ETC.	0.000916967	t/TJ
2022	SO2	1A2d	DEMOLITION WOOD	0.019803396	t/TJ
2022	SO2	1A2d	FOREST RESIDUE CHIPS	0.003900091	t/TJ
2022	SO2	1A2d	GASOIL (FOR NON-ROAD USE)	0.294061482	t/TJ
2022	SO2	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.035464597	t/TJ
2022	SO2	1A2d	HEAVY FUEL OIL (S<0,1%)	0.003768959	t/TJ
2022	SO2	1A2d	HEAVY FUEL OIL (S<1%)	0.052846725	t/TJ
2022	SO2	1A2d	HYDROGEN	0.000000001	t/TJ
2022	SO2	1A2d	IMPREGNATED WOOD	0.019803396	t/TJ
2022	SO2	1A2d	INDUSTRIAL WASTE	0.320743974	t/TJ
2022	SO2	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.581893311	t/TJ
2022	SO2	1A2d	LIQUEFIED NATURAL GAS (LNG)	0.000009000	t/TJ
2022	SO2	1A2d	LIQUID GAS	0.000008998	t/TJ
2022	SO2	1A2d	METHANOL	0.023975349	t/TJ
2022	SO2	1A2d	MILLED PEAT	0.070131157	t/TJ
2022	SO2	1A2d	NATURAL GAS	0.000026917	t/TJ
2022	SO2	1A2d	NATURAL GAS	0.000040000	t/TJ
2022	SO2	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.018790845	t/TJ
2022	SO2	1A2d	OTHER FUEL	0.318898546	t/TJ
2022	SO2	1A2d	OTHER NON-FOSSIL GAS	0.010000000	t/TJ
2022	SO2	1A2d	PAPER	0.002836475	t/TJ
2022	SO2	1A2d	PLASTIC WASTE	0.069065277	t/TJ
2022	SO2	1A2d	RECOVERED WOOD	0.018417815	t/TJ
2022	SO2	1A2d	RECYCLED AND WASTE OILS	0.019803396	t/TJ
2022	SO2	1A2d	SAWDUST	0.005317755	t/TJ
2022	SO2	1A2d	SOLID RECOVERED FUEL (SRF)	0.008598477	t/TJ
2022	SO2	1A2d	TALL PITCH AND OIL	0.003233337	t/TJ
2022	SO2	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.012623997	t/TJ
2022	SO2	1A2d	WOOD RESIDUE CHIPS	0.017382864	t/TJ
2022	SO2	1A2d	WOOD STUMP CHIPS	0.003960679	t/TJ
2022	SO2	1A2e	ANIMAL FATS AND OILS	0.027446285	t/TJ
2022	SO2	1A2e	ANIMAL-BASED FUELS	0.150000000	t/TJ
2022	SO2	1A2e	BIO-FUEL OIL	0.107961810	t/TJ
2022	SO2	1A2e	BIOGAS FROM WASTEWATER TREATMENT	0.000340606	t/TJ
2022	SO2	1A2e	CHIPS FROM ROUNDWOOD	0.010683124	t/TJ
2022	SO2	1A2e	COAL (S=1.0%)	0.334016109	t/TJ
2022	SO2	1A2e	COKE (S=1.0%)	0.000073727	t/TJ
2022	SO2	1A2e	FOREST RESIDUE CHIPS	0.010904616	t/TJ
2022	SO2	1A2e	GASOIL (FOR NON-ROAD USE)	0.043079918	t/TJ
2022	SO2	1A2e	HEAVY FUEL OIL (S<0,1%)	1.055687507	t/TJ
2022	SO2	1A2e	HEAVY FUEL OIL (S<1%)	0.161477344	t/TJ
2022	SO2	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.050145680	t/TJ
2022	SO2	1A2e	LIQUEFIED NATURAL GAS (LNG)	0.000010034	t/TJ
2022	SO2	1A2e	LIQUID GAS	0.000605171	t/TJ

2022	SO2	1A2e	MILLED PEAT	0.141942630	t/TJ
2022	SO2	1A2e	NAPHTHA	0.043000001	t/TJ
2022	SO2	1A2e	NATURAL GAS	0.000040000	t/TJ
2022	SO2	1A2e	NATURAL GAS	0.000040000	t/TJ
2022	SO2	1A2e	OTHER MEDIUM DISTILLATES	0.000163049	t/TJ
2022	SO2	1A2e	OTHER NON-FOSSIL GAS	0.019870730	t/TJ
2022	SO2	1A2e	OTHER NON-FOSSIL SOLID	0.000646831	t/TJ
2022	SO2	1A2e	PEAT PELLETS AND BRIQUETTES	0.099360881	t/TJ
2022	SO2	1A2e	RECOVERED WOOD	0.098001508	t/TJ
2022	SO2	1A2e	SOD PEAT	0.062494376	t/TJ
2022	SO2	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.010016727	t/TJ
2022	SO2	1A2e	WOOD STUMP CHIPS	0.006943820	t/TJ
2022	SO2	1A2f	CHIPS FROM ROUNDWOOD	0.019846302	t/TJ
2022	SO2	1A2f	COAL (S=1.0%)	0.131082307	t/TJ
2022	SO2	1A2f	COKE (S=1.0%)	0.117190370	t/TJ
2022	SO2	1A2f	COKE OVEN GAS	0.005957897	t/TJ
2022	SO2	1A2f	CUTTER CHIPS ETC.	0.007087139	t/TJ
2022	SO2	1A2f	DIESEL OIL (S=001%)	0.013323954	t/TJ
2022	SO2	1A2f	FOREST RESIDUE CHIPS	0.020000001	t/TJ
2022	SO2	1A2f	GASOIL (FOR NON-ROAD USE)	0.042469153	t/TJ
2022	SO2	1A2f	HEAVY FUEL OIL (S<0,1%)	0.231622538	t/TJ
2022	SO2	1A2f	HEAVY FUEL OIL (S<1%)	0.256727123	t/TJ
2022	SO2	1A2f	INDUSTRIAL WASTE	0.002837669	t/TJ
2022	SO2	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.020207169	t/TJ
2022	SO2	1A2f	LIQUID GAS	0.032445800	t/TJ
2022	SO2	1A2f	MOTOR GASOLINE (S=0.001%)	0.042864328	t/TJ
2022	SO2	1A2f	NATURAL GAS	0.004959055	t/TJ
2022	SO2	1A2f	NATURAL GAS	0.000040000	t/TJ
2022	SO2	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000661822	t/TJ
2022	SO2	1A2f	OTHER FOSSIL GAS	0.003008404	t/TJ
2022	SO2	1A2f	OTHER FOSSIL LIQUID	0.025907448	t/TJ
2022	SO2	1A2f	OTHER FUEL	0.009256154	t/TJ
2022	SO2	1A2f	OTHER HEAVY DISTILLATES	0.045060973	t/TJ
2022	SO2	1A2f	OTHER NON-FOSSIL GAS	0.010000000	t/TJ
2022	SO2	1A2f	PETROLEUM COKE	0.023084696	t/TJ
2022	SO2	1A2f	PLASTIC WASTE	0.004271586	t/TJ
2022	SO2	1A2f	RECYCLED AND WASTE OILS	0.220619045	t/TJ
2022	SO2	1A2f	RUBBER WASTE	0.003854149	t/TJ
2022	SO2	1A2f	SAWDUST	0.011898172	t/TJ
2022	SO2	1A2f	SOLID RECOVERED FUEL (SRF)	0.003586281	t/TJ
2022	SO2	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.005792660	t/TJ
2022	SO2	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.000289030	t/TJ
2022	SO2	1A2gvii	LIQUID GAS	0.000032544	t/TJ
2022	SO2	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.000368664	t/TJ
2022	SO2	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.019012098	t/TJ
2022	SO2	1A2gviii	BARK	0.019759115	t/TJ
2022	SO2	1A2gviii	BIOGAS FROM WASTEWATER TREATMENT	0.031805755	t/TJ
2022	SO2	1A2gviii	CHIPS FROM ROUNDWOOD	0.002913816	t/TJ
2022	SO2	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.083030079	t/TJ
2022	SO2	1A2gviii	CUTTER CHIPS ETC.	0.017433537	t/TJ
2022	SO2	1A2gviii	DEMOLITION WOOD	0.002737076	t/TJ
2022	SO2	1A2gviii	DIESEL OIL (S=001%)	0.001049832	t/TJ
2022	SO2	1A2gviii	FOREST RESIDUE CHIPS	0.004404465	t/TJ
2022	SO2	1A2gviii	FOREST RESIDUE CHIPS	0.020000000	t/TJ
2022	SO2	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.031127010	t/TJ
2022	SO2	1A2gviii	HAZARDOUS WASTE	0.003895890	t/TJ

2022	SO2	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.049019609	t/TJ
2022	SO2	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.185199423	t/TJ
2022	SO2	1A2gviii	HEAVY FUEL OIL (S<1%)	0.377615068	t/TJ
2022	SO2	1A2gviii	IMPREGNATED WOOD	0.003908547	t/TJ
2022	SO2	1A2gviii	LANDFILL GAS	0.017000000	t/TJ
2022	SO2	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.033307617	t/TJ
2022	SO2	1A2gviii	LIQUEFIED NATURAL GAS (LNG)	0.000009000	t/TJ
2022	SO2	1A2gviii	LIQUID GAS	0.000265508	t/TJ
2022	SO2	1A2gviii	MILLED PEAT	0.078484753	t/TJ
2022	SO2	1A2gviii	MUNICIPAL WASTE - unsorted	0.004375323	t/TJ
2022	SO2	1A2gviii	NAPHTHA	0.037207627	t/TJ
2022	SO2	1A2gviii	NATURAL GAS	0.030386155	t/TJ
2022	SO2	1A2gviii	NATURAL GAS	0.000040000	t/TJ
2022	SO2	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.006554770	t/TJ
2022	SO2	1A2gviii	OTHER HEAVY DISTILLATES	0.044354109	t/TJ
2022	SO2	1A2gviii	OTHER NON-FOSSIL GAS	0.010295212	t/TJ
2022	SO2	1A2gviii	OTHER NON-FOSSIL SOLID	0.053606161	t/TJ
2022	SO2	1A2gviii	OTHER NON-FOSSIL SOLID	0.040243865	t/TJ
2022	SO2	1A2gviii	OTHER WASTE	0.004569711	t/TJ
2022	SO2	1A2gviii	OTHER WOOD RESIDUE	0.030000000	t/TJ
2022	SO2	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.127461004	t/TJ
2022	SO2	1A2gviii	PLASTIC WASTE	0.002205721	t/TJ
2022	SO2	1A2gviii	RECOVERED WOOD	0.027217368	t/TJ
2022	SO2	1A2gviii	RECYCLED AND WASTE OILS	0.017629276	t/TJ
2022	SO2	1A2gviii	RENEWABLE DIESEL	0.000470000	t/TJ
2022	SO2	1A2gviii	SAWDUST	0.003884810	t/TJ
2022	SO2	1A2gviii	SAWDUST AND CUTTER CHIPS	0.015138194	t/TJ
2022	SO2	1A2gviii	SOD PEAT	0.126621127	t/TJ
2022	SO2	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.002408661	t/TJ
2022	SO2	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.013778972	t/TJ
2022	SO2	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.008265137	t/TJ
2022	SO2	1A2gviii	WOOD RESIDUE CHIPS	0.017683454	t/TJ
2022	SO2	1A2gviii	WOOD STUMP CHIPS	0.002098937	t/TJ
2022	SO2	1A3ai(i)	KEROSENE (JET FUEL)	0.019400000	t/TJ
2022	SO2	1A3aii(i)	AVIATION GASOLINE	0.000920000	t/TJ
2022	SO2	1A3aii(i)	KEROSENE (JET FUEL)	0.019399538	t/TJ
2022	SO2	1A3bi	DIESEL OIL (S=001%)	0.000288279	t/TJ
2022	SO2	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000366294	t/TJ
2022	SO2	1A3bi	NATURAL GAS	0.000060242	t/TJ
2022	SO2	1A3bii	DIESEL OIL (S=001%)	0.000288279	t/TJ
2022	SO2	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000368664	t/TJ
2022	SO2	1A3bii	NATURAL GAS	0.000060242	t/TJ
2022	SO2	1A3biii	DIESEL OIL (S=001%)	0.000288279	t/TJ
2022	SO2	1A3biii	NATURAL GAS	0.000060242	t/TJ
2022	SO2	1A3biv	DIESEL OIL (S=001%)	0.000279239	t/TJ
2022	SO2	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000368664	t/TJ
2022	SO2	1A3c	GASOIL (FOR NON-ROAD USE)	0.000288929	t/TJ
2022	SO2	1A3dii	DIESEL OIL (S=001%)	0.000288302	t/TJ
2022	SO2	1A3dii	GASOIL (FOR NON-ROAD USE)	0.015627393	t/TJ
2022	SO2	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.043998109	t/TJ
2022	SO2	1A3dii	MOTOR GASOLINE (S=0.001%)	0.000368664	t/TJ
2022	SO2	1A3ei	NATURAL GAS	0.000039999	t/TJ
2022	SO2	1A4ai	FOREST WOODFUEL	0.005000000	t/TJ
2022	SO2	1A4ai	GASOIL (FOR NON-ROAD USE)	0.031600210	t/TJ
2022	SO2	1A4ai	HEAVY FUEL OIL (S<1%)	0.438000000	t/TJ
2022	SO2	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.043227902	t/TJ

2022	SO2	1A4ai	NAPHTHA	0.000453529	t/TJ
2022	SO2	1A4ai	NATURAL GAS	0.000040000	t/TJ
2022	SO2	1A4ai	NATURAL GAS	0.000040000	t/TJ
2022	SO2	1A4ai	SOD PEAT	0.180000000	t/TJ
2022	SO2	1A4aai	GASOIL (FOR NON-ROAD USE)	0.000289030	t/TJ
2022	SO2	1A4aai	MOTOR GASOLINE (S=0.001%)	0.000368664	t/TJ
2022	SO2	1A4bi	FOREST WOODFUEL	0.005000000	t/TJ
2022	SO2	1A4bi	HEAVY FUEL OIL (S<1%)	0.438000000	t/TJ
2022	SO2	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.043000000	t/TJ
2022	SO2	1A4bi	LIQUID GAS	0.000009000	t/TJ
2022	SO2	1A4bi	NATURAL GAS	0.000040000	t/TJ
2022	SO2	1A4bi	PARAFFIN	0.009300000	t/TJ
2022	SO2	1A4bi	SOD PEAT	0.180000000	t/TJ
2022	SO2	1A4bii	GASOIL (FOR NON-ROAD USE)	0.000289030	t/TJ
2022	SO2	1A4bii	MOTOR GASOLINE (S=0.001%)	0.000368664	t/TJ
2022	SO2	1A4ci	ANIMAL-BASED FUELS	0.018750000	t/TJ
2022	SO2	1A4ci	CHIPS FROM ROUNDWOOD	0.037496317	t/TJ
2022	SO2	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.019999999	t/TJ
2022	SO2	1A4ci	COAL (S=1.0%)	0.627000000	t/TJ
2022	SO2	1A4ci	FOREST WOODFUEL	0.005000000	t/TJ
2022	SO2	1A4ci	HEAVY FUEL OIL (S<1%)	0.438000000	t/TJ
2022	SO2	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.043000000	t/TJ
2022	SO2	1A4ci	LIQUID GAS	0.000009000	t/TJ
2022	SO2	1A4ci	NATURAL GAS	0.000040000	t/TJ
2022	SO2	1A4ci	OTHER NON-FOSSIL SOLID	0.001331361	t/TJ
2022	SO2	1A4ci	RECOVERED WOOD	0.378548881	t/TJ
2022	SO2	1A4ci	SOD PEAT	0.178443569	t/TJ
2022	SO2	1A4ci	WOOD RESIDUE CHIPS	0.002500000	t/TJ
2022	SO2	1A4cii	GASOIL (FOR NON-ROAD USE)	0.000289030	t/TJ
2022	SO2	1A4cii	MOTOR GASOLINE (S=0.001%)	0.000368664	t/TJ
2022	SO2	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000288929	t/TJ
2022	SO2	1A5a	FOREST WOODFUEL	0.020000000	t/TJ
2022	SO2	1A5a	KEROSENE (JET FUEL)	0.018384132	t/TJ
2022	SO2	1A5a	LANDFILL GAS	0.017000000	t/TJ
2022	SO2	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.044979258	t/TJ
2022	SO2	1A5a	LIQUID GAS	0.000009000	t/TJ
2022	SO2	1A5a	OTHER PETROLEUM PRODUCTS	0.100000000	t/TJ

### NH3 Implied emission factors in Finnish air pollutant inventory for 2022

2022	NH3	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.000192686	t/TJ
2022	NH3	1A2gvii	LIQUID GAS	0.000217391	t/TJ
2022	NH3	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.000106582	t/TJ
2022	NH3	1A3bi	DIESEL OIL (S=0.001%)	0.001103195	t/TJ
2022	NH3	1A3bi	MOTOR GASOLINE (S=0.001%)	0.012473240	t/TJ
2022	NH3	1A3bi	NATURAL GAS	0.030575507	t/TJ
2022	NH3	1A3bii	DIESEL OIL (S=0.001%)	0.000895260	t/TJ
2022	NH3	1A3bii	MOTOR GASOLINE (S=0.001%)	0.009632116	t/TJ
2022	NH3	1A3bii	NATURAL GAS	0.018312686	t/TJ
2022	NH3	1A3biii	DIESEL OIL (S=0.001%)	0.000591700	t/TJ
2022	NH3	1A3biii	NATURAL GAS	0.003476482	t/TJ
2022	NH3	1A3biv	DIESEL OIL (S=0.001%)	0.000969228	t/TJ
2022	NH3	1A3biv	MOTOR GASOLINE (S=0.001%)	0.001365569	t/TJ
2022	NH3	1A3c	GASOIL (FOR NON-ROAD USE)	0.000168542	t/TJ
2022	NH3	1A3dii	DIESEL OIL (S=0.001%)	0.000224171	t/TJ
2022	NH3	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000185615	t/TJ

2022	NH3	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.000194533	t/TJ
2022	NH3	1A3dii	MOTOR GASOLINE (S=0.001%)	0.000125233	t/TJ
2022	NH3	1A4ai	FOREST WOODFUEL	0.001672269	t/TJ
2022	NH3	1A4aai	GASOIL (FOR NON-ROAD USE)	0.000192686	t/TJ
2022	NH3	1A4aai	MOTOR GASOLINE (S=0.001%)	0.000096950	t/TJ
2022	NH3	1A4bi	FOREST WOODFUEL	0.020939204	t/TJ
2022	NH3	1A4bii	GASOIL (FOR NON-ROAD USE)	0.000192686	t/TJ
2022	NH3	1A4bii	MOTOR GASOLINE (S=0.001%)	0.000098137	t/TJ
2022	NH3	1A4ci	FOREST WOODFUEL	0.001700900	t/TJ
2022	NH3	1A4cii	GASOIL (FOR NON-ROAD USE)	0.000192686	t/TJ
2022	NH3	1A4cii	MOTOR GASOLINE (S=0.001%)	0.000080165	t/TJ
2022	NH3	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000190212	t/TJ
2022	NH3	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000013915	t/TJ

#### PM2.5 Implied emission factors in Finnish air pollutant inventory for 2022

2022	PM2.5	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000036245	t/TJ
2022	PM2.5	1A1a	ANIMAL-BASED FUELS	0.000047096	t/TJ
2022	PM2.5	1A1a	ASPHALTENE	0.000084822	t/TJ
2022	PM2.5	1A1a	BARK	0.000702195	t/TJ
2022	PM2.5	1A1a	BIO PYROLYSIS OIL	0.000406068	t/TJ
2022	PM2.5	1A1a	BIO-FUEL OIL	0.000641032	t/TJ
2022	PM2.5	1A1a	CHIPS FROM ROUNDWOOD	0.000486035	t/TJ
2022	PM2.5	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000689818	t/TJ
2022	PM2.5	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.000316147	t/TJ
2022	PM2.5	1A1a	COAL (S=1.0%)	0.000903475	t/TJ
2022	PM2.5	1A1a	CUTTER CHIPS ETC.	0.001331556	t/TJ
2022	PM2.5	1A1a	DEINKING WASTE	0.000093289	t/TJ
2022	PM2.5	1A1a	DEMOLITION WOOD	0.000211616	t/TJ
2022	PM2.5	1A1a	DIESEL OIL (S=001%)	0.000839994	t/TJ
2022	PM2.5	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.012634859	t/TJ
2022	PM2.5	1A1a	FOREST RESIDUE CHIPS	0.000156781	t/TJ
2022	PM2.5	1A1a	FOREST RESIDUE CHIPS	0.005058550	t/TJ
2022	PM2.5	1A1a	GASOIL (FOR NON-ROAD USE)	0.000355413	t/TJ
2022	PM2.5	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.015386924	t/TJ
2022	PM2.5	1A1a	HEAVY FUEL OIL (S<0,1%)	0.000926408	t/TJ
2022	PM2.5	1A1a	HEAVY FUEL OIL (S<0,5%)	0.002225139	t/TJ
2022	PM2.5	1A1a	HEAVY FUEL OIL (S<1%)	0.006925655	t/TJ
2022	PM2.5	1A1a	IMPREGNATED WOOD	0.000307919	t/TJ
2022	PM2.5	1A1a	INDUSTRIAL WASTE	0.000164349	t/TJ
2022	PM2.5	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.000547365	t/TJ
2022	PM2.5	1A1a	LIGNIN	0.000449435	t/TJ
2022	PM2.5	1A1a	MILLED PEAT	0.000523930	t/TJ
2022	PM2.5	1A1a	MOTOR GASOLINE (S=0.001%)	0.000119527	t/TJ
2022	PM2.5	1A1a	MUNICIPAL WASTE - unsorted	0.000024840	t/TJ
2022	PM2.5	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.001606120	t/TJ
2022	PM2.5	1A1a	OTHER FOSSIL SOLID	0.000202158	t/TJ
2022	PM2.5	1A1a	OTHER FUEL	0.000076971	t/TJ
2022	PM2.5	1A1a	OTHER MEDIUM DISTILLATES	0.003019097	t/TJ
2022	PM2.5	1A1a	OTHER NON-FOSSIL SOLID	0.000345696	t/TJ
2022	PM2.5	1A1a	OTHER NON-FOSSIL SOLID	0.000384137	t/TJ
2022	PM2.5	1A1a	OTHER NON-FOSSIL SOLID	0.000662618	t/TJ
2022	PM2.5	1A1a	OTHER WASTE	0.000039271	t/TJ
2022	PM2.5	1A1a	OTHER WOOD RESIDUE	0.000557286	t/TJ
2022	PM2.5	1A1a	PAPER	0.000108554	t/TJ
2022	PM2.5	1A1a	RECOVERED FUEL (REF 2)	0.010000000	t/TJ

2022	PM2.5	1A1a	RECOVERED WOOD	0.000209303	t/TJ
2022	PM2.5	1A1a	RECYCLED AND WASTE OILS	0.000167099	t/TJ
2022	PM2.5	1A1a	RENEWABLE DIESEL	0.000840000	t/TJ
2022	PM2.5	1A1a	SAWDUST	0.000625378	t/TJ
2022	PM2.5	1A1a	SOD PEAT	0.009720113	t/TJ
2022	PM2.5	1A1a	SOLID RECOVERED FUEL (SRF)	0.000141670	t/TJ
2022	PM2.5	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000441485	t/TJ
2022	PM2.5	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000587538	t/TJ
2022	PM2.5	1A1a	WOOD RESIDUE CHIPS	0.000636140	t/TJ
2022	PM2.5	1A1a	WOOD STUMP CHIPS	0.000239560	t/TJ
2022	PM2.5	1A1b	COKE (S=1.0%)	0.007500000	t/TJ
2022	PM2.5	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.000145205	t/TJ
2022	PM2.5	1A1b	OTHER FOSSIL LIQUID	0.007282471	t/TJ
2022	PM2.5	1A1b	OTHER MEDIUM DISTILLATES	0.000140743	t/TJ
2022	PM2.5	1A1b	PETROLEUM COKE	0.002884286	t/TJ
2022	PM2.5	1A1b	SULPHUR CONCENTRATE	0.000554700	t/TJ
2022	PM2.5	1A2a	COKE (S=1.0%)	0.001822250	t/TJ
2022	PM2.5	1A2a	DIESEL OIL (S=001%)	0.000840000	t/TJ
2022	PM2.5	1A2a	GASOIL (FOR NON-ROAD USE)	0.000449063	t/TJ
2022	PM2.5	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.000838934	t/TJ
2022	PM2.5	1A2a	OTHER FOSSIL SOLID	0.001748232	t/TJ
2022	PM2.5	1A2a	WOOD RESIDUE CHIPS	0.000711454	t/TJ
2022	PM2.5	1A2b	COAL (S=1.0%)	0.002500000	t/TJ
2022	PM2.5	1A2b	COKE (S=1.0%)	0.001208948	t/TJ
2022	PM2.5	1A2b	HEAVY FUEL OIL (S<1%)	0.008337932	t/TJ
2022	PM2.5	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.000199981	t/TJ
2022	PM2.5	1A2b	OTHER HEAVY DISTILLATES	0.006770110	t/TJ
2022	PM2.5	1A2c	DIESEL OIL (S=001%)	0.000840000	t/TJ
2022	PM2.5	1A2c	GASOIL (FOR NON-ROAD USE)	0.001716353	t/TJ
2022	PM2.5	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.002700760	t/TJ
2022	PM2.5	1A2c	HEAVY FUEL OIL (S<0,1%)	0.007264556	t/TJ
2022	PM2.5	1A2c	HEAVY FUEL OIL (S<1%)	0.021272924	t/TJ
2022	PM2.5	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.001207247	t/TJ
2022	PM2.5	1A2c	OTHER FOSSIL LIQUID	0.026672512	t/TJ
2022	PM2.5	1A2c	OTHER MEDIUM DISTILLATES	0.001800000	t/TJ
2022	PM2.5	1A2c	TALL PITCH AND OIL	0.010849766	t/TJ
2022	PM2.5	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.001757095	t/TJ
2022	PM2.5	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000727780	t/TJ
2022	PM2.5	1A2d	ANIMAL-BASED FUELS	0.001578651	t/TJ
2022	PM2.5	1A2d	BARK	0.001152955	t/TJ
2022	PM2.5	1A2d	BIOLOGICAL SLURRY	0.000110594	t/TJ
2022	PM2.5	1A2d	BLACK LIQUOR	0.004580872	t/TJ
2022	PM2.5	1A2d	CHIPS FROM ROUNDWOOD	0.001380602	t/TJ
2022	PM2.5	1A2d	COAL (S=1.0%)	0.000517288	t/TJ
2022	PM2.5	1A2d	CUTTER CHIPS ETC.	0.000183995	t/TJ
2022	PM2.5	1A2d	DEMOLITION WOOD	0.000552528	t/TJ
2022	PM2.5	1A2d	FOREST RESIDUE CHIPS	0.000690641	t/TJ
2022	PM2.5	1A2d	GASOIL (FOR NON-ROAD USE)	0.000610585	t/TJ
2022	PM2.5	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.003946929	t/TJ
2022	PM2.5	1A2d	HEAVY FUEL OIL (S<0,1%)	0.019741000	t/TJ
2022	PM2.5	1A2d	HEAVY FUEL OIL (S<1%)	0.014980353	t/TJ
2022	PM2.5	1A2d	IMPREGNATED WOOD	0.000552528	t/TJ
2022	PM2.5	1A2d	INDUSTRIAL WASTE	0.002596196	t/TJ
2022	PM2.5	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.000709142	t/TJ
2022	PM2.5	1A2d	METHANOL	0.000330982	t/TJ
2022	PM2.5	1A2d	MILLED PEAT	0.001345615	t/TJ

2022	PM2.5	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.003038215	t/TJ
2022	PM2.5	1A2d	OTHER FUEL	0.177907653	t/TJ
2022	PM2.5	1A2d	PAPER	0.003061967	t/TJ
2022	PM2.5	1A2d	PLASTIC WASTE	0.000696247	t/TJ
2022	PM2.5	1A2d	RECOVERED WOOD	0.001270756	t/TJ
2022	PM2.5	1A2d	RECYCLED AND WASTE OILS	0.001059643	t/TJ
2022	PM2.5	1A2d	SAWDUST	0.001823571	t/TJ
2022	PM2.5	1A2d	SOLID RECOVERED FUEL (SRF)	0.000247705	t/TJ
2022	PM2.5	1A2d	TALL PITCH AND OIL	0.008338444	t/TJ
2022	PM2.5	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000499483	t/TJ
2022	PM2.5	1A2d	WOOD RESIDUE CHIPS	0.000423696	t/TJ
2022	PM2.5	1A2d	WOOD STUMP CHIPS	0.000552528	t/TJ
2022	PM2.5	1A2e	ANIMAL FATS AND OILS	0.000106643	t/TJ
2022	PM2.5	1A2e	ANIMAL-BASED FUELS	0.010000000	t/TJ
2022	PM2.5	1A2e	BIO-FUEL OIL	0.000840000	t/TJ
2022	PM2.5	1A2e	CHIPS FROM ROUNDWOOD	0.000678338	t/TJ
2022	PM2.5	1A2e	COAL (S=1.0%)	0.000762730	t/TJ
2022	PM2.5	1A2e	COKE (S=1.0%)	0.000047922	t/TJ
2022	PM2.5	1A2e	FOREST RESIDUE CHIPS	0.000265191	t/TJ
2022	PM2.5	1A2e	GASOIL (FOR NON-ROAD USE)	0.000764712	t/TJ
2022	PM2.5	1A2e	HEAVY FUEL OIL (S<0,1%)	0.014956981	t/TJ
2022	PM2.5	1A2e	HEAVY FUEL OIL (S<1%)	0.013019989	t/TJ
2022	PM2.5	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.001259367	t/TJ
2022	PM2.5	1A2e	MILLED PEAT	0.000242950	t/TJ
2022	PM2.5	1A2e	NAPHTHA	0.000840000	t/TJ
2022	PM2.5	1A2e	OTHER MEDIUM DISTILLATES	0.000091915	t/TJ
2022	PM2.5	1A2e	OTHER NON-FOSSIL SOLID	0.047647428	t/TJ
2022	PM2.5	1A2e	PEAT PELLETS AND BRIQUETTES	0.000351370	t/TJ
2022	PM2.5	1A2e	RECOVERED WOOD	0.000205679	t/TJ
2022	PM2.5	1A2e	SOD PEAT	0.001505909	t/TJ
2022	PM2.5	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.009908791	t/TJ
2022	PM2.5	1A2e	WOOD STUMP CHIPS	0.000527068	t/TJ
2022	PM2.5	1A2f	CHIPS FROM ROUNDWOOD	0.001153218	t/TJ
2022	PM2.5	1A2f	COAL (S=1.0%)	0.000102132	t/TJ
2022	PM2.5	1A2f	COKE (S=1.0%)	0.001267608	t/TJ
2022	PM2.5	1A2f	CUTTER CHIPS ETC.	0.000016615	t/TJ
2022	PM2.5	1A2f	DIESEL OIL (S=001%)	0.000468837	t/TJ
2022	PM2.5	1A2f	FOREST RESIDUE CHIPS	0.003500000	t/TJ
2022	PM2.5	1A2f	GASOIL (FOR NON-ROAD USE)	0.000826880	t/TJ
2022	PM2.5	1A2f	HEAVY FUEL OIL (S<0,1%)	0.025891943	t/TJ
2022	PM2.5	1A2f	HEAVY FUEL OIL (S<1%)	0.034159503	t/TJ
2022	PM2.5	1A2f	INDUSTRIAL WASTE	0.000332629	t/TJ
2022	PM2.5	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.004628977	t/TJ
2022	PM2.5	1A2f	MOTOR GASOLINE (S=0.001%)	0.003684801	t/TJ
2022	PM2.5	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.001853880	t/TJ
2022	PM2.5	1A2f	OTHER FOSSIL LIQUID	0.001273615	t/TJ
2022	PM2.5	1A2f	OTHER FUEL	0.001851794	t/TJ
2022	PM2.5	1A2f	OTHER HEAVY DISTILLATES	0.044000192	t/TJ
2022	PM2.5	1A2f	PETROLEUM COKE	0.000679261	t/TJ
2022	PM2.5	1A2f	PLASTIC WASTE	0.000120321	t/TJ
2022	PM2.5	1A2f	RECYCLED AND WASTE OILS	0.000171745	t/TJ
2022	PM2.5	1A2f	RUBBER WASTE	0.003373810	t/TJ
2022	PM2.5	1A2f	SAWDUST	0.000068920	t/TJ
2022	PM2.5	1A2f	SOLID RECOVERED FUEL (SRF)	0.000179025	t/TJ
2022	PM2.5	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000065518	t/TJ
2022	PM2.5	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.015052955	t/TJ

2022	PM2.5	1A2gvii	LIQUID GAS	0.004140835	t/TJ
2022	PM2.5	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.004394186	t/TJ
2022	PM2.5	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000266194	t/TJ
2022	PM2.5	1A2gviii	BARK	0.026248501	t/TJ
2022	PM2.5	1A2gviii	CHIPS FROM ROUNDWOOD	0.000152373	t/TJ
2022	PM2.5	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.001285937	t/TJ
2022	PM2.5	1A2gviii	CUTTER CHIPS ETC.	0.005450862	t/TJ
2022	PM2.5	1A2gviii	DEMOLITION WOOD	0.000100034	t/TJ
2022	PM2.5	1A2gviii	DIESEL OIL (S=0.001%)	0.000835764	t/TJ
2022	PM2.5	1A2gviii	FOREST RESIDUE CHIPS	0.000911802	t/TJ
2022	PM2.5	1A2gviii	FOREST RESIDUE CHIPS	0.010000000	t/TJ
2022	PM2.5	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.001162605	t/TJ
2022	PM2.5	1A2gviii	HAZARDOUS WASTE	0.000049249	t/TJ
2022	PM2.5	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.021960785	t/TJ
2022	PM2.5	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.017715331	t/TJ
2022	PM2.5	1A2gviii	HEAVY FUEL OIL (S<1%)	0.026256449	t/TJ
2022	PM2.5	1A2gviii	IMPREGNATED WOOD	0.000164827	t/TJ
2022	PM2.5	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.001544765	t/TJ
2022	PM2.5	1A2gviii	MILLED PEAT	0.000777708	t/TJ
2022	PM2.5	1A2gviii	MUNICIPAL WASTE - unsorted	0.000017365	t/TJ
2022	PM2.5	1A2gviii	NAPHTHA	0.002722694	t/TJ
2022	PM2.5	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000330533	t/TJ
2022	PM2.5	1A2gviii	OTHER HEAVY DISTILLATES	0.051630647	t/TJ
2022	PM2.5	1A2gviii	OTHER NON-FOSSIL SOLID	0.000293446	t/TJ
2022	PM2.5	1A2gviii	OTHER NON-FOSSIL SOLID	0.000193170	t/TJ
2022	PM2.5	1A2gviii	OTHER WASTE	0.000087715	t/TJ
2022	PM2.5	1A2gviii	OTHER WOOD RESIDUE	0.016036456	t/TJ
2022	PM2.5	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.002348554	t/TJ
2022	PM2.5	1A2gviii	PLASTIC WASTE	0.000084426	t/TJ
2022	PM2.5	1A2gviii	RECOVERED WOOD	0.000074632	t/TJ
2022	PM2.5	1A2gviii	RECYCLED AND WASTE OILS	0.002117109	t/TJ
2022	PM2.5	1A2gviii	RENEWABLE DIESEL	0.000839999	t/TJ
2022	PM2.5	1A2gviii	SAWDUST	0.001285432	t/TJ
2022	PM2.5	1A2gviii	SAWDUST AND CUTTER CHIPS	0.113274552	t/TJ
2022	PM2.5	1A2gviii	SOD PEAT	0.004703028	t/TJ
2022	PM2.5	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000057674	t/TJ
2022	PM2.5	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.011543456	t/TJ
2022	PM2.5	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.004686905	t/TJ
2022	PM2.5	1A2gviii	WOOD RESIDUE CHIPS	0.005844596	t/TJ
2022	PM2.5	1A2gviii	WOOD STUMP CHIPS	0.000024549	t/TJ
2022	PM2.5	1A3ai(i)	KEROSENE (JET FUEL)	0.002446029	t/TJ
2022	PM2.5	1A3aii(i)	AVIATION GASOLINE	0.008100000	t/TJ
2022	PM2.5	1A3aii(i)	KEROSENE (JET FUEL)	0.002542862	t/TJ
2022	PM2.5	1A3bi	DIESEL OIL (S=0.001%)	0.006719514	t/TJ
2022	PM2.5	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000757765	t/TJ
2022	PM2.5	1A3bi	NATURAL GAS	0.001077723	t/TJ
2022	PM2.5	1A3bii	DIESEL OIL (S=0.001%)	0.014795873	t/TJ
2022	PM2.5	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000897307	t/TJ
2022	PM2.5	1A3bii	NATURAL GAS	0.000914444	t/TJ
2022	PM2.5	1A3biii	DIESEL OIL (S=0.001%)	0.001957388	t/TJ
2022	PM2.5	1A3biii	NATURAL GAS	0.000343681	t/TJ
2022	PM2.5	1A3biv	DIESEL OIL (S=0.001%)	0.111092858	t/TJ
2022	PM2.5	1A3biv	MOTOR GASOLINE (S=0.001%)	0.007201619	t/TJ
2022	PM2.5	1A3c	GASOIL (FOR NON-ROAD USE)	0.030850209	t/TJ
2022	PM2.5	1A3dii	DIESEL OIL (S=0.001%)	0.103038229	t/TJ
2022	PM2.5	1A3dii	GASOIL (FOR NON-ROAD USE)	0.026749750	t/TJ

2022	PM2.5	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.040228406	t/TJ
2022	PM2.5	1A3dii	MOTOR GASOLINE (S=0.001%)	0.126598503	t/TJ
2022	PM2.5	1A4ai	FOREST WOODFUEL	0.015652933	t/TJ
2022	PM2.5	1A4ai	GASOIL (FOR NON-ROAD USE)	0.000280226	t/TJ
2022	PM2.5	1A4ai	HEAVY FUEL OIL (S<1%)	0.050400000	t/TJ
2022	PM2.5	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.000839526	t/TJ
2022	PM2.5	1A4ai	NAPHTHA	0.000758218	t/TJ
2022	PM2.5	1A4ai	SOD PEAT	0.017623762	t/TJ
2022	PM2.5	1A4aii	GASOIL (FOR NON-ROAD USE)	0.012127481	t/TJ
2022	PM2.5	1A4aii	MOTOR GASOLINE (S=0.001%)	0.047306897	t/TJ
2022	PM2.5	1A4bi	FOREST WOODFUEL	0.149198845	t/TJ
2022	PM2.5	1A4bi	HEAVY FUEL OIL (S<1%)	0.020700000	t/TJ
2022	PM2.5	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.004900000	t/TJ
2022	PM2.5	1A4bi	PARAFFIN	0.004900000	t/TJ
2022	PM2.5	1A4bi	SOD PEAT	0.320000000	t/TJ
2022	PM2.5	1A4bii	GASOIL (FOR NON-ROAD USE)	0.071091975	t/TJ
2022	PM2.5	1A4bii	MOTOR GASOLINE (S=0.001%)	0.048901497	t/TJ
2022	PM2.5	1A4ci	ANIMAL-BASED FUELS	0.046391752	t/TJ
2022	PM2.5	1A4ci	CHIPS FROM ROUNDWOOD	0.036463980	t/TJ
2022	PM2.5	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.003500000	t/TJ
2022	PM2.5	1A4ci	COAL (S=1.0%)	0.003453947	t/TJ
2022	PM2.5	1A4ci	FOREST WOODFUEL	0.015500000	t/TJ
2022	PM2.5	1A4ci	HEAVY FUEL OIL (S<1%)	0.050400000	t/TJ
2022	PM2.5	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.000840000	t/TJ
2022	PM2.5	1A4ci	OTHER NON-FOSSIL SOLID	0.005743590	t/TJ
2022	PM2.5	1A4ci	RECOVERED WOOD	0.048143052	t/TJ
2022	PM2.5	1A4ci	SOD PEAT	0.019712335	t/TJ
2022	PM2.5	1A4ci	WOOD RESIDUE CHIPS	0.016237113	t/TJ
2022	PM2.5	1A4cii	GASOIL (FOR NON-ROAD USE)	0.010953866	t/TJ
2022	PM2.5	1A4cii	MOTOR GASOLINE (S=0.001%)	0.131092027	t/TJ
2022	PM2.5	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.030674635	t/TJ
2022	PM2.5	1A5a	FOREST WOODFUEL	0.010000000	t/TJ
2022	PM2.5	1A5a	KEROSENE (JET FUEL)	0.009917755	t/TJ
2022	PM2.5	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.002461016	t/TJ
2022	PM2.5	1A5a	OTHER PETROLEUM PRODUCTS	0.000840000	t/TJ

#### PM10 Implied emission factors in Finnish air pollutant inventory for 2022

2022	PM10	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000087723	t/TJ
2022	PM10	1A1a	ANIMAL-BASED FUELS	0.000024168	t/TJ
2022	PM10	1A1a	ANTHRACITE	0.008918935	t/TJ
2022	PM10	1A1a	ASPHALTENE	0.000130263	t/TJ
2022	PM10	1A1a	BARK	0.002243783	t/TJ
2022	PM10	1A1a	BIO PYROLYSIS OIL	0.001691948	t/TJ
2022	PM10	1A1a	BIO-FUEL OIL	0.002670967	t/TJ
2022	PM10	1A1a	CHIPS FROM ROUNDWOOD	0.002123863	t/TJ
2022	PM10	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.001579700	t/TJ
2022	PM10	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.002000997	t/TJ
2022	PM10	1A1a	COAL (S=1.0%)	0.002914865	t/TJ
2022	PM10	1A1a	CUTTER CHIPS ETC.	0.006885179	t/TJ
2022	PM10	1A1a	DEINKING WASTE	0.000231126	t/TJ
2022	PM10	1A1a	DEMOLITION WOOD	0.000508692	t/TJ
2022	PM10	1A1a	DIESEL OIL (S=0.001%)	0.003499976	t/TJ
2022	PM10	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.001390010	t/TJ
2022	PM10	1A1a	FOREST RESIDUE CHIPS	0.022421916	t/TJ
2022	PM10	1A1a	FOREST RESIDUE CHIPS	0.001999342	t/TJ

2022	PM10	1A1a	GASOIL (FOR NON-ROAD USE)	0.001481851	t/TJ
2022	PM10	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.018863021	t/TJ
2022	PM10	1A1a	HEAVY FUEL OIL (S<0,1%)	0.001412685	t/TJ
2022	PM10	1A1a	HEAVY FUEL OIL (S<0,5%)	0.003313126	t/TJ
2022	PM10	1A1a	HEAVY FUEL OIL (S<1%)	0.006064279	t/TJ
2022	PM10	1A1a	IMPREGNATED WOOD	0.000747120	t/TJ
2022	PM10	1A1a	INDUSTRIAL WASTE	0.000854479	t/TJ
2022	PM10	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.002374245	t/TJ
2022	PM10	1A1a	LIGNIN	0.001087771	t/TJ
2022	PM10	1A1a	MILLED PEAT	0.001220887	t/TJ
2022	PM10	1A1a	MOTOR GASOLINE (S=0.001%)	0.000498068	t/TJ
2022	PM10	1A1a	MUNICIPAL WASTE - unsorted	0.000136214	t/TJ
2022	PM10	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.003915019	t/TJ
2022	PM10	1A1a	OTHER FOSSIL SOLID	0.000684996	t/TJ
2022	PM10	1A1a	OTHER FUEL	0.000186293	t/TJ
2022	PM10	1A1a	OTHER MEDIUM DISTILLATES	0.012579569	t/TJ
2022	PM10	1A1a	OTHER NON-FOSSIL SOLID	0.000840553	t/TJ
2022	PM10	1A1a	OTHER NON-FOSSIL SOLID	0.003207476	t/TJ
2022	PM10	1A1a	OTHER NON-FOSSIL SOLID	0.000927699	t/TJ
2022	PM10	1A1a	OTHER WASTE	0.000106139	t/TJ
2022	PM10	1A1a	OTHER WOOD RESIDUE	0.001201573	t/TJ
2022	PM10	1A1a	PAPER	0.000262734	t/TJ
2022	PM10	1A1a	RECOVERED FUEL (REF 2)	0.052000000	t/TJ
2022	PM10	1A1a	RECOVERED WOOD	0.000746813	t/TJ
2022	PM10	1A1a	RECYCLED AND WASTE OILS	0.000231845	t/TJ
2022	PM10	1A1a	RENEWABLE DIESEL	0.003500000	t/TJ
2022	PM10	1A1a	SAWDUST	0.002883884	t/TJ
2022	PM10	1A1a	SOD PEAT	0.049348907	t/TJ
2022	PM10	1A1a	SOLID RECOVERED FUEL (SRF)	0.000736682	t/TJ
2022	PM10	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.001386285	t/TJ
2022	PM10	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.002423039	t/TJ
2022	PM10	1A1a	WOOD RESIDUE CHIPS	0.004640001	t/TJ
2022	PM10	1A1a	WOOD STUMP CHIPS	0.002554000	t/TJ
2022	PM10	1A1b	COKE (S=1.0%)	0.038999999	t/TJ
2022	PM10	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.000605023	t/TJ
2022	PM10	1A1b	OTHER FOSSIL LIQUID	0.000606873	t/TJ
2022	PM10	1A1b	OTHER MEDIUM DISTILLATES	0.000586431	t/TJ
2022	PM10	1A1b	PETROLEUM COKE	0.005021749	t/TJ
2022	PM10	1A1b	SULPHUR CONCENTRATE	0.001253619	t/TJ
2022	PM10	1A2a	COKE (S=1.0%)	0.008633463	t/TJ
2022	PM10	1A2a	DIESEL OIL (S=0.001%)	0.003500000	t/TJ
2022	PM10	1A2a	GASOIL (FOR NON-ROAD USE)	0.001871102	t/TJ
2022	PM10	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.003117591	t/TJ
2022	PM10	1A2a	OTHER FOSSIL SOLID	0.014353965	t/TJ
2022	PM10	1A2a	WOOD RESIDUE CHIPS	0.010570175	t/TJ
2022	PM10	1A2b	COAL (S=1.0%)	0.038999981	t/TJ
2022	PM10	1A2b	COKE (S=1.0%)	0.006286536	t/TJ
2022	PM10	1A2b	HEAVY FUEL OIL (S<1%)	0.015924990	t/TJ
2022	PM10	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.000818966	t/TJ
2022	PM10	1A2b	OTHER HEAVY DISTILLATES	0.010396955	t/TJ
2022	PM10	1A2c	DIESEL OIL (S=0.001%)	0.003500000	t/TJ
2022	PM10	1A2c	GASOIL (FOR NON-ROAD USE)	0.007151470	t/TJ
2022	PM10	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.004147596	t/TJ
2022	PM10	1A2c	HEAVY FUEL OIL (S<0,1%)	0.012411339	t/TJ
2022	PM10	1A2c	HEAVY FUEL OIL (S<1%)	0.059078978	t/TJ
2022	PM10	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.005030196	t/TJ

2022	PM10	1A2c	OTHER FOSSIL LIQUID	0.040961426	t/TJ
2022	PM10	1A2c	OTHER MEDIUM DISTILLATES	0.007500000	t/TJ
2022	PM10	1A2c	TALL PITCH AND OIL	0.008898832	t/TJ
2022	PM10	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.026105406	t/TJ
2022	PM10	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.001761449	t/TJ
2022	PM10	1A2d	ANIMAL-BASED FUELS	0.001189251	t/TJ
2022	PM10	1A2d	BARK	0.002919739	t/TJ
2022	PM10	1A2d	BIOLOGICAL SLURRY	0.000298907	t/TJ
2022	PM10	1A2d	BLACK LIQUOR	0.007805544	t/TJ
2022	PM10	1A2d	CHIPS FROM ROUNDWOOD	0.003513775	t/TJ
2022	PM10	1A2d	COAL (S=1.0%)	0.001558768	t/TJ
2022	PM10	1A2d	CUTTER CHIPS ETC.	0.000956773	t/TJ
2022	PM10	1A2d	DEMOLITION WOOD	0.001189249	t/TJ
2022	PM10	1A2d	FOREST RESIDUE CHIPS	0.001740266	t/TJ
2022	PM10	1A2d	GASOIL (FOR NON-ROAD USE)	0.002544104	t/TJ
2022	PM10	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.001269449	t/TJ
2022	PM10	1A2d	HEAVY FUEL OIL (S<0,1%)	0.030298786	t/TJ
2022	PM10	1A2d	HEAVY FUEL OIL (S<1%)	0.007608124	t/TJ
2022	PM10	1A2d	HYDROGEN	0.002156221	t/TJ
2022	PM10	1A2d	IMPREGNATED WOOD	0.001189251	t/TJ
2022	PM10	1A2d	INDUSTRIAL WASTE	0.013967105	t/TJ
2022	PM10	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.002957956	t/TJ
2022	PM10	1A2d	LIQUID GAS	0.000000037	t/TJ
2022	PM10	1A2d	METHANOL	0.003892123	t/TJ
2022	PM10	1A2d	MILLED PEAT	0.003005220	t/TJ
2022	PM10	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.007419844	t/TJ
2022	PM10	1A2d	OTHER FUEL	0.430591269	t/TJ
2022	PM10	1A2d	PAPER	0.007410897	t/TJ
2022	PM10	1A2d	PLASTIC WASTE	0.001573520	t/TJ
2022	PM10	1A2d	RECOVERED WOOD	0.003023109	t/TJ
2022	PM10	1A2d	RECYCLED AND WASTE OILS	0.001465119	t/TJ
2022	PM10	1A2d	SAWDUST	0.009460983	t/TJ
2022	PM10	1A2d	SOLID RECOVERED FUEL (SRF)	0.001288065	t/TJ
2022	PM10	1A2d	TALL PITCH AND OIL	0.002776926	t/TJ
2022	PM10	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.001208901	t/TJ
2022	PM10	1A2d	WOOD RESIDUE CHIPS	0.000966103	t/TJ
2022	PM10	1A2d	WOOD STUMP CHIPS	0.001189253	t/TJ
2022	PM10	1A2e	ANIMAL FATS AND OILS	0.000516220	t/TJ
2022	PM10	1A2e	ANIMAL-BASED FUELS	0.052000000	t/TJ
2022	PM10	1A2e	BIO-FUEL OIL	0.034400000	t/TJ
2022	PM10	1A2e	CHIPS FROM ROUNDWOOD	0.003527361	t/TJ
2022	PM10	1A2e	COAL (S=1.0%)	0.003966200	t/TJ
2022	PM10	1A2e	COKE (S=1.0%)	0.000249198	t/TJ
2022	PM10	1A2e	FOREST RESIDUE CHIPS	0.003939970	t/TJ
2022	PM10	1A2e	GASOIL (FOR NON-ROAD USE)	0.003186302	t/TJ
2022	PM10	1A2e	HEAVY FUEL OIL (S<0,1%)	0.022969649	t/TJ
2022	PM10	1A2e	HEAVY FUEL OIL (S<1%)	0.022621586	t/TJ
2022	PM10	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.005247362	t/TJ
2022	PM10	1A2e	MILLED PEAT	0.001439549	t/TJ
2022	PM10	1A2e	NAPHTHA	0.003500000	t/TJ
2022	PM10	1A2e	OTHER MEDIUM DISTILLATES	0.000382978	t/TJ
2022	PM10	1A2e	OTHER NON-FOSSIL SOLID	0.115321797	t/TJ
2022	PM10	1A2e	PEAT PELLETS AND BRIQUETTES	0.001827126	t/TJ
2022	PM10	1A2e	RECOVERED WOOD	0.000497806	t/TJ
2022	PM10	1A2e	SOD PEAT	0.007830729	t/TJ
2022	PM10	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.051542952	t/TJ

2022	PM10	1A2e	WOOD STUMP CHIPS	0.007830721	t/TJ
2022	PM10	1A2f	CHIPS FROM ROUNDWOOD	0.017133526	t/TJ
2022	PM10	1A2f	COAL (S=1.0%)	0.003424989	t/TJ
2022	PM10	1A2f	COKE (S=1.0%)	0.006591549	t/TJ
2022	PM10	1A2f	CUTTER CHIPS ETC.	0.000086397	t/TJ
2022	PM10	1A2f	DIESEL OIL (S=001%)	0.001953488	t/TJ
2022	PM10	1A2f	FOREST RESIDUE CHIPS	0.052000001	t/TJ
2022	PM10	1A2f	GASOIL (FOR NON-ROAD USE)	0.003445191	t/TJ
2022	PM10	1A2f	HEAVY FUEL OIL (S<0,1%)	0.039762628	t/TJ
2022	PM10	1A2f	HEAVY FUEL OIL (S<1%)	0.058488536	t/TJ
2022	PM10	1A2f	INDUSTRIAL WASTE	0.001729671	t/TJ
2022	PM10	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.019286964	t/TJ
2022	PM10	1A2f	MOTOR GASOLINE (S=0.001%)	0.015353327	t/TJ
2022	PM10	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.004486961	t/TJ
2022	PM10	1A2f	OTHER FOSSIL LIQUID	0.001955909	t/TJ
2022	PM10	1A2f	OTHER FUEL	0.004481913	t/TJ
2022	PM10	1A2f	OTHER HEAVY DISTILLATES	0.067571802	t/TJ
2022	PM10	1A2f	PETROLEUM COKE	0.005094460	t/TJ
2022	PM10	1A2f	PLASTIC WASTE	0.000271926	t/TJ
2022	PM10	1A2f	RECYCLED AND WASTE OILS	0.000721110	t/TJ
2022	PM10	1A2f	RUBBER WASTE	0.004466746	t/TJ
2022	PM10	1A2f	SAWDUST	0.000358381	t/TJ
2022	PM10	1A2f	SOLID RECOVERED FUEL (SRF)	0.000930930	t/TJ
2022	PM10	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000973417	t/TJ
2022	PM10	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.015052955	t/TJ
2022	PM10	1A2gvii	LIQUID GAS	0.004140835	t/TJ
2022	PM10	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.004394186	t/TJ
2022	PM10	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000644271	t/TJ
2022	PM10	1A2gviii	BARK	0.042626848	t/TJ
2022	PM10	1A2gviii	CHIPS FROM ROUNDWOOD	0.001644182	t/TJ
2022	PM10	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.019105344	t/TJ
2022	PM10	1A2gviii	CUTTER CHIPS ETC.	0.038905405	t/TJ
2022	PM10	1A2gviii	DEMOLITION WOOD	0.000243518	t/TJ
2022	PM10	1A2gviii	DIESEL OIL (S=001%)	0.003482347	t/TJ
2022	PM10	1A2gviii	FOREST RESIDUE CHIPS	0.052000000	t/TJ
2022	PM10	1A2gviii	FOREST RESIDUE CHIPS	0.013546774	t/TJ
2022	PM10	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.005641923	t/TJ
2022	PM10	1A2gviii	HAZARDOUS WASTE	0.000119539	t/TJ
2022	PM10	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.033725491	t/TJ
2022	PM10	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.027205769	t/TJ
2022	PM10	1A2gviii	HEAVY FUEL OIL (S<1%)	0.039925336	t/TJ
2022	PM10	1A2gviii	IMPREGNATED WOOD	0.000448307	t/TJ
2022	PM10	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.006940541	t/TJ
2022	PM10	1A2gviii	MILLED PEAT	0.003759298	t/TJ
2022	PM10	1A2gviii	MUNICIPAL WASTE - unsorted	0.000126250	t/TJ
2022	PM10	1A2gviii	NAPHTHA	0.011344560	t/TJ
2022	PM10	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000799992	t/TJ
2022	PM10	1A2gviii	OTHER HEAVY DISTILLATES	0.085155011	t/TJ
2022	PM10	1A2gviii	OTHER NON-FOSSIL SOLID	0.000710228	t/TJ
2022	PM10	1A2gviii	OTHER NON-FOSSIL SOLID	0.000467531	t/TJ
2022	PM10	1A2gviii	OTHER WASTE	0.000285068	t/TJ
2022	PM10	1A2gviii	OTHER WOOD RESIDUE	0.083389502	t/TJ
2022	PM10	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.012212481	t/TJ
2022	PM10	1A2gviii	PLASTIC WASTE	0.000214582	t/TJ
2022	PM10	1A2gviii	RECOVERED WOOD	0.000346915	t/TJ
2022	PM10	1A2gviii	RECYCLED AND WASTE OILS	0.002927226	t/TJ

2022	PM10	1A2gviii	RENEWABLE DIESEL	0.003499990	t/TJ
2022	PM10	1A2gviii	SAWDUST	0.006684246	t/TJ
2022	PM10	1A2gviii	SAWDUST AND CUTTER CHIPS	0.135277966	t/TJ
2022	PM10	1A2gviii	SOD PEAT	0.015544544	t/TJ
2022	PM10	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000299906	t/TJ
2022	PM10	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.031334696	t/TJ
2022	PM10	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.047913915	t/TJ
2022	PM10	1A2gviii	WOOD RESIDUE CHIPS	0.031996448	t/TJ
2022	PM10	1A2gviii	WOOD STUMP CHIPS	0.000364734	t/TJ
2022	PM10	1A3ai(i)	KEROSENE (JET FUEL)	0.002446029	t/TJ
2022	PM10	1A3aii(i)	AVIATION GASOLINE	0.008100000	t/TJ
2022	PM10	1A3aii(i)	KEROSENE (JET FUEL)	0.002542862	t/TJ
2022	PM10	1A3bi	DIESEL OIL (S=001%)	0.006719514	t/TJ
2022	PM10	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000757765	t/TJ
2022	PM10	1A3bi	NATURAL GAS	0.001077723	t/TJ
2022	PM10	1A3bii	DIESEL OIL (S=001%)	0.014795873	t/TJ
2022	PM10	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000897307	t/TJ
2022	PM10	1A3bii	NATURAL GAS	0.000914444	t/TJ
2022	PM10	1A3biii	DIESEL OIL (S=001%)	0.001957388	t/TJ
2022	PM10	1A3biii	NATURAL GAS	0.000343681	t/TJ
2022	PM10	1A3biv	DIESEL OIL (S=001%)	0.111092858	t/TJ
2022	PM10	1A3biv	MOTOR GASOLINE (S=0.001%)	0.007201619	t/TJ
2022	PM10	1A3c	GASOIL (FOR NON-ROAD USE)	0.032426497	t/TJ
2022	PM10	1A3dii	DIESEL OIL (S=001%)	0.103038229	t/TJ
2022	PM10	1A3dii	GASOIL (FOR NON-ROAD USE)	0.028660446	t/TJ
2022	PM10	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.044538593	t/TJ
2022	PM10	1A3dii	MOTOR GASOLINE (S=0.001%)	0.126598503	t/TJ
2022	PM10	1A4ai	FOREST WOODFUEL	0.016157867	t/TJ
2022	PM10	1A4ai	GASOIL (FOR NON-ROAD USE)	0.001167609	t/TJ
2022	PM10	1A4ai	HEAVY FUEL OIL (S<1%)	0.077400000	t/TJ
2022	PM10	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.003505508	t/TJ
2022	PM10	1A4ai	NAPHTHA	0.003159245	t/TJ
2022	PM10	1A4ai	SOD PEAT	0.091643564	t/TJ
2022	PM10	1A4aii	GASOIL (FOR NON-ROAD USE)	0.012127481	t/TJ
2022	PM10	1A4aii	MOTOR GASOLINE (S=0.001%)	0.047306897	t/TJ
2022	PM10	1A4bi	FOREST WOODFUEL	0.154011711	t/TJ
2022	PM10	1A4bi	HEAVY FUEL OIL (S<1%)	0.055800000	t/TJ
2022	PM10	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.006300000	t/TJ
2022	PM10	1A4bi	PARAFFIN	0.006300000	t/TJ
2022	PM10	1A4bi	SOD PEAT	0.360000000	t/TJ
2022	PM10	1A4bii	GASOIL (FOR NON-ROAD USE)	0.071091975	t/TJ
2022	PM10	1A4bii	MOTOR GASOLINE (S=0.001%)	0.048901497	t/TJ
2022	PM10	1A4ci	ANIMAL-BASED FUELS	0.241237110	t/TJ
2022	PM10	1A4ci	CHIPS FROM ROUNDWOOD	0.189612698	t/TJ
2022	PM10	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.051999998	t/TJ
2022	PM10	1A4ci	COAL (S=1.0%)	0.017960526	t/TJ
2022	PM10	1A4ci	FOREST WOODFUEL	0.016000000	t/TJ
2022	PM10	1A4ci	HEAVY FUEL OIL (S<1%)	0.077400000	t/TJ
2022	PM10	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.003500000	t/TJ
2022	PM10	1A4ci	OTHER NON-FOSSIL SOLID	0.013901250	t/TJ
2022	PM10	1A4ci	RECOVERED WOOD	0.116520774	t/TJ
2022	PM10	1A4ci	SOD PEAT	0.102504144	t/TJ
2022	PM10	1A4ci	WOOD RESIDUE CHIPS	0.241237105	t/TJ
2022	PM10	1A4cii	GASOIL (FOR NON-ROAD USE)	0.010953866	t/TJ
2022	PM10	1A4cii	MOTOR GASOLINE (S=0.001%)	0.131092027	t/TJ
2022	PM10	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.032865680	t/TJ

2022	PM10	1A5a	FOREST WOODFUEL	0.052000000	t/TJ
2022	PM10	1A5a	KEROSENE (JET FUEL)	0.009917755	t/TJ
2022	PM10	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.005232237	t/TJ
2022	PM10	1A5a	OTHER PETROLEUM PRODUCTS	0.003500000	t/TJ

#### TSP Implied emission factors in Finnish air pollutant inventory for 2022

2022	TSP	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000103556	t/TJ
2022	TSP	1A1a	ANIMAL-BASED FUELS	0.000047096	t/TJ
2022	TSP	1A1a	ANTHRACITE	0.010000013	t/TJ
2022	TSP	1A1a	ASPHALTENE	0.000151469	t/TJ
2022	TSP	1A1a	BARK	0.003019466	t/TJ
2022	TSP	1A1a	BIO PYROLYSIS OIL	0.003383896	t/TJ
2022	TSP	1A1a	BIO-FUEL OIL	0.005341934	t/TJ
2022	TSP	1A1a	CHIPS FROM ROUNDWOOD	0.001788023	t/TJ
2022	TSP	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.002376603	t/TJ
2022	TSP	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.006545713	t/TJ
2022	TSP	1A1a	COAL (S=1.0%)	0.003629861	t/TJ
2022	TSP	1A1a	CUTTER CHIPS ETC.	0.003846927	t/TJ
2022	TSP	1A1a	DEINKING WASTE	0.000299466	t/TJ
2022	TSP	1A1a	DEMOLITION WOOD	0.000604616	t/TJ
2022	TSP	1A1a	DIESEL OIL (S=001%)	0.007000060	t/TJ
2022	TSP	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.001640895	t/TJ
2022	TSP	1A1a	FOREST RESIDUE CHIPS	0.080272980	t/TJ
2022	TSP	1A1a	FOREST RESIDUE CHIPS	0.007514011	t/TJ
2022	TSP	1A1a	GASOIL (FOR NON-ROAD USE)	0.002963701	t/TJ
2022	TSP	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.021865407	t/TJ
2022	TSP	1A1a	HEAVY FUEL OIL (S<0,1%)	0.001642244	t/TJ
2022	TSP	1A1a	HEAVY FUEL OIL (S<0,5%)	0.003849193	t/TJ
2022	TSP	1A1a	HEAVY FUEL OIL (S<1%)	0.006888367	t/TJ
2022	TSP	1A1a	IMPREGNATED WOOD	0.000879768	t/TJ
2022	TSP	1A1a	INDUSTRIAL WASTE	0.003286150	t/TJ
2022	TSP	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.004748493	t/TJ
2022	TSP	1A1a	LIGNIN	0.001284100	t/TJ
2022	TSP	1A1a	MILLED PEAT	0.001634107	t/TJ
2022	TSP	1A1a	MOTOR GASOLINE (S=0.001%)	0.000996136	t/TJ
2022	TSP	1A1a	MUNICIPAL WASTE - unsorted	0.000280276	t/TJ
2022	TSP	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.004672318	t/TJ
2022	TSP	1A1a	OTHER FOSSIL SOLID	0.000808635	t/TJ
2022	TSP	1A1a	OTHER FUEL	0.000219917	t/TJ
2022	TSP	1A1a	OTHER MEDIUM DISTILLATES	0.025159139	t/TJ
2022	TSP	1A1a	OTHER NON-FOSSIL SOLID	0.003786384	t/TJ
2022	TSP	1A1a	OTHER NON-FOSSIL SOLID	0.001097534	t/TJ
2022	TSP	1A1a	OTHER NON-FOSSIL SOLID	0.001011529	t/TJ
2022	TSP	1A1a	OTHER WASTE	0.000150651	t/TJ
2022	TSP	1A1a	OTHER WOOD RESIDUE	0.001595008	t/TJ
2022	TSP	1A1a	PAPER	0.000310154	t/TJ
2022	TSP	1A1a	RECOVERED FUEL (REF 2)	0.200000000	t/TJ
2022	TSP	1A1a	RECOVERED WOOD	0.001516445	t/TJ
2022	TSP	1A1a	RECYCLED AND WASTE OILS	0.000248943	t/TJ
2022	TSP	1A1a	RENEWABLE DIESEL	0.007000000	t/TJ
2022	TSP	1A1a	SAWDUST	0.002039346	t/TJ
2022	TSP	1A1a	SOD PEAT	0.188870515	t/TJ
2022	TSP	1A1a	SOLID RECOVERED FUEL (SRF)	0.002833393	t/TJ
2022	TSP	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.001945345	t/TJ
2022	TSP	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.006158404	t/TJ

2022	TSP	1A1a	WOOD RESIDUE CHIPS	0.015470207	t/TJ
2022	TSP	1A1a	WOOD STUMP CHIPS	0.008897367	t/TJ
2022	TSP	1A1b	COKE (S=1.0%)	0.149999995	t/TJ
2022	TSP	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.001210047	t/TJ
2022	TSP	1A1b	OTHER FOSSIL LIQUID	0.001213745	t/TJ
2022	TSP	1A1b	OTHER MEDIUM DISTILLATES	0.001172862	t/TJ
2022	TSP	1A1b	PETROLEUM COKE	0.019314418	t/TJ
2022	TSP	1A1b	SULPHUR CONCENTRATE	0.001664103	t/TJ
2022	TSP	1A2a	COKE (S=1.0%)	0.023515640	t/TJ
2022	TSP	1A2a	DIESEL OIL (S=001%)	0.007000000	t/TJ
2022	TSP	1A2a	GASOIL (FOR NON-ROAD USE)	0.003742191	t/TJ
2022	TSP	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.006235181	t/TJ
2022	TSP	1A2a	OTHER FOSSIL SOLID	0.027971713	t/TJ
2022	TSP	1A2a	WOOD RESIDUE CHIPS	0.040654521	t/TJ
2022	TSP	1A2b	COAL (S=1.0%)	0.149999704	t/TJ
2022	TSP	1A2b	COKE (S=1.0%)	0.024178899	t/TJ
2022	TSP	1A2b	HEAVY FUEL OIL (S<1%)	0.018517425	t/TJ
2022	TSP	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.001637932	t/TJ
2022	TSP	1A2b	OTHER HEAVY DISTILLATES	0.012089483	t/TJ
2022	TSP	1A2c	DIESEL OIL (S=001%)	0.007000000	t/TJ
2022	TSP	1A2c	GASOIL (FOR NON-ROAD USE)	0.014302941	t/TJ
2022	TSP	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.004822787	t/TJ
2022	TSP	1A2c	HEAVY FUEL OIL (S<0,1%)	0.012972421	t/TJ
2022	TSP	1A2c	HEAVY FUEL OIL (S<1%)	0.068696499	t/TJ
2022	TSP	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.010060392	t/TJ
2022	TSP	1A2c	OTHER FOSSIL LIQUID	0.047629497	t/TJ
2022	TSP	1A2c	OTHER MEDIUM DISTILLATES	0.015000000	t/TJ
2022	TSP	1A2c	TALL PITCH AND OIL	0.010347480	t/TJ
2022	TSP	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.100405409	t/TJ
2022	TSP	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.002079371	t/TJ
2022	TSP	1A2d	ANIMAL-BASED FUELS	0.001578651	t/TJ
2022	TSP	1A2d	BARK	0.004205245	t/TJ
2022	TSP	1A2d	BIOLOGICAL SLURRY	0.000424262	t/TJ
2022	TSP	1A2d	BLACK LIQUOR	0.008611068	t/TJ
2022	TSP	1A2d	CHIPS FROM ROUNDWOOD	0.003944571	t/TJ
2022	TSP	1A2d	COAL (S=1.0%)	0.002069160	t/TJ
2022	TSP	1A2d	CUTTER CHIPS ETC.	0.000525699	t/TJ
2022	TSP	1A2d	DEMOLITION WOOD	0.001578651	t/TJ
2022	TSP	1A2d	FOREST RESIDUE CHIPS	0.002139764	t/TJ
2022	TSP	1A2d	GASOIL (FOR NON-ROAD USE)	0.005088208	t/TJ
2022	TSP	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.002123434	t/TJ
2022	TSP	1A2d	HEAVY FUEL OIL (S<0,1%)	0.035230645	t/TJ
2022	TSP	1A2d	HEAVY FUEL OIL (S<1%)	0.015378816	t/TJ
2022	TSP	1A2d	HYDROGEN	0.011348534	t/TJ
2022	TSP	1A2d	IMPREGNATED WOOD	0.001578651	t/TJ
2022	TSP	1A2d	INDUSTRIAL WASTE	0.042239395	t/TJ
2022	TSP	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.005912216	t/TJ
2022	TSP	1A2d	LIQUID GAS	0.000000195	t/TJ
2022	TSP	1A2d	METHANOL	0.005866961	t/TJ
2022	TSP	1A2d	MILLED PEAT	0.003844613	t/TJ
2022	TSP	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.008741562	t/TJ
2022	TSP	1A2d	OTHER FUEL	0.508308955	t/TJ
2022	TSP	1A2d	PAPER	0.008748478	t/TJ
2022	TSP	1A2d	PLASTIC WASTE	0.002088744	t/TJ
2022	TSP	1A2d	RECOVERED WOOD	0.003630731	t/TJ
2022	TSP	1A2d	RECYCLED AND WASTE OILS	0.001578651	t/TJ

2022	TSP	1A2d	SAWDUST	0.005360551	t/TJ
2022	TSP	1A2d	SOLID RECOVERED FUEL (SRF)	0.004954095	t/TJ
2022	TSP	1A2d	TALL PITCH AND OIL	0.005596043	t/TJ
2022	TSP	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.001427093	t/TJ
2022	TSP	1A2d	WOOD RESIDUE CHIPS	0.001210557	t/TJ
2022	TSP	1A2d	WOOD STUMP CHIPS	0.001578651	t/TJ
2022	TSP	1A2e	ANIMAL FATS AND OILS	0.000609391	t/TJ
2022	TSP	1A2e	ANIMAL-BASED FUELS	0.200000000	t/TJ
2022	TSP	1A2e	BIO-FUEL OIL	0.040000000	t/TJ
2022	TSP	1A2e	CHIPS FROM ROUNDWOOD	0.001938110	t/TJ
2022	TSP	1A2e	COAL (S=1.0%)	0.006101849	t/TJ
2022	TSP	1A2e	COKE (S=1.0%)	0.000958453	t/TJ
2022	TSP	1A2e	FOREST RESIDUE CHIPS	0.015153739	t/TJ
2022	TSP	1A2e	GASOIL (FOR NON-ROAD USE)	0.006372604	t/TJ
2022	TSP	1A2e	HEAVY FUEL OIL (S<0,1%)	0.026708894	t/TJ
2022	TSP	1A2e	HEAVY FUEL OIL (S<1%)	0.026304154	t/TJ
2022	TSP	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.010494724	t/TJ
2022	TSP	1A2e	MILLED PEAT	0.004654618	t/TJ
2022	TSP	1A2e	NAPHTHA	0.007000000	t/TJ
2022	TSP	1A2e	OTHER MEDIUM DISTILLATES	0.000765957	t/TJ
2022	TSP	1A2e	OTHER NON-FOSSIL SOLID	0.136135508	t/TJ
2022	TSP	1A2e	PEAT PELLETS AND BRIQUETTES	0.004517619	t/TJ
2022	TSP	1A2e	RECOVERED WOOD	0.000587654	t/TJ
2022	TSP	1A2e	SOD PEAT	0.030118188	t/TJ
2022	TSP	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.198242123	t/TJ
2022	TSP	1A2e	WOOD STUMP CHIPS	0.030118188	t/TJ
2022	TSP	1A2f	CHIPS FROM ROUNDWOOD	0.065898176	t/TJ
2022	TSP	1A2f	COAL (S=1.0%)	0.006576482	t/TJ
2022	TSP	1A2f	COKE (S=1.0%)	0.025352113	t/TJ
2022	TSP	1A2f	CUTTER CHIPS ETC.	0.000047471	t/TJ
2022	TSP	1A2f	DIESEL OIL (S=001%)	0.003906977	t/TJ
2022	TSP	1A2f	FOREST RESIDUE CHIPS	0.200000005	t/TJ
2022	TSP	1A2f	GASOIL (FOR NON-ROAD USE)	0.006890664	t/TJ
2022	TSP	1A2f	HEAVY FUEL OIL (S<0,1%)	0.046235613	t/TJ
2022	TSP	1A2f	HEAVY FUEL OIL (S<1%)	0.068031880	t/TJ
2022	TSP	1A2f	INDUSTRIAL WASTE	0.006652571	t/TJ
2022	TSP	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.038574814	t/TJ
2022	TSP	1A2f	MOTOR GASOLINE (S=0.001%)	0.030706630	t/TJ
2022	TSP	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.005296800	t/TJ
2022	TSP	1A2f	OTHER FOSSIL LIQUID	0.002274312	t/TJ
2022	TSP	1A2f	OTHER FUEL	0.005290840	t/TJ
2022	TSP	1A2f	OTHER HEAVY DISTILLATES	0.078571772	t/TJ
2022	TSP	1A2f	PETROLEUM COKE	0.012129667	t/TJ
2022	TSP	1A2f	PLASTIC WASTE	0.000360964	t/TJ
2022	TSP	1A2f	RECYCLED AND WASTE OILS	0.000775492	t/TJ
2022	TSP	1A2f	RUBBER WASTE	0.004751842	t/TJ
2022	TSP	1A2f	SAWDUST	0.000196913	t/TJ
2022	TSP	1A2f	SOLID RECOVERED FUEL (SRF)	0.003580501	t/TJ
2022	TSP	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.003743904	t/TJ
2022	TSP	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.015052955	t/TJ
2022	TSP	1A2gvii	LIQUID GAS	0.004140835	t/TJ
2022	TSP	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.004394186	t/TJ
2022	TSP	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000760555	t/TJ
2022	TSP	1A2gviii	BARK	0.056534893	t/TJ
2022	TSP	1A2gviii	CHIPS FROM ROUNDWOOD	0.001930809	t/TJ
2022	TSP	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.073482091	t/TJ

2022	TSP	1A2gviii	CUTTER CHIPS ETC.	0.028282593	t/TJ
2022	TSP	1A2gviii	DEMOLITION WOOD	0.000285810	t/TJ
2022	TSP	1A2gviii	DIESEL OIL (S=001%)	0.006964693	t/TJ
2022	TSP	1A2gviii	FOREST RESIDUE CHIPS	0.052102976	t/TJ
2022	TSP	1A2gviii	FOREST RESIDUE CHIPS	0.200000000	t/TJ
2022	TSP	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.011283848	t/TJ
2022	TSP	1A2gviii	HAZARDOUS WASTE	0.000142809	t/TJ
2022	TSP	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.039215687	t/TJ
2022	TSP	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.031634632	t/TJ
2022	TSP	1A2gviii	HEAVY FUEL OIL (S<1%)	0.046566912	t/TJ
2022	TSP	1A2gviii	IMPREGNATED WOOD	0.000470934	t/TJ
2022	TSP	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.013881083	t/TJ
2022	TSP	1A2gviii	MILLED PEAT	0.004443474	t/TJ
2022	TSP	1A2gviii	MUNICIPAL WASTE - unsorted	0.000176030	t/TJ
2022	TSP	1A2gviii	NAPHTHA	0.022689119	t/TJ
2022	TSP	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000944380	t/TJ
2022	TSP	1A2gviii	OTHER HEAVY DISTILLATES	0.099016457	t/TJ
2022	TSP	1A2gviii	OTHER NON-FOSSIL SOLID	0.000551915	t/TJ
2022	TSP	1A2gviii	OTHER NON-FOSSIL SOLID	0.000838415	t/TJ
2022	TSP	1A2gviii	OTHER WASTE	0.000336606	t/TJ
2022	TSP	1A2gviii	OTHER WOOD RESIDUE	0.053137396	t/TJ
2022	TSP	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.030195694	t/TJ
2022	TSP	1A2gviii	PLASTIC WASTE	0.000253442	t/TJ
2022	TSP	1A2gviii	RECOVERED WOOD	0.000717955	t/TJ
2022	TSP	1A2gviii	RECYCLED AND WASTE OILS	0.003154059	t/TJ
2022	TSP	1A2gviii	RENEWABLE DIESEL	0.007000003	t/TJ
2022	TSP	1A2gviii	SAWDUST	0.003672663	t/TJ
2022	TSP	1A2gviii	SAWDUST AND CUTTER CHIPS	0.166495351	t/TJ
2022	TSP	1A2gviii	SOD PEAT	0.042537937	t/TJ
2022	TSP	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.001153483	t/TJ
2022	TSP	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.047954264	t/TJ
2022	TSP	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.183605711	t/TJ
2022	TSP	1A2gviii	WOOD RESIDUE CHIPS	0.089384507	t/TJ
2022	TSP	1A2gviii	WOOD STUMP CHIPS	0.001402824	t/TJ
2022	TSP	1A3ai(i)	KEROSENE (JET FUEL)	0.002446029	t/TJ
2022	TSP	1A3aii(i)	AVIATION GASOLINE	0.008100000	t/TJ
2022	TSP	1A3aii(i)	KEROSENE (JET FUEL)	0.002542862	t/TJ
2022	TSP	1A3bi	DIESEL OIL (S=001%)	0.006719514	t/TJ
2022	TSP	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000757765	t/TJ
2022	TSP	1A3bi	NATURAL GAS	0.001077723	t/TJ
2022	TSP	1A3bii	DIESEL OIL (S=001%)	0.014795873	t/TJ
2022	TSP	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000897307	t/TJ
2022	TSP	1A3bii	NATURAL GAS	0.000914444	t/TJ
2022	TSP	1A3biii	DIESEL OIL (S=001%)	0.001957388	t/TJ
2022	TSP	1A3biii	NATURAL GAS	0.000343681	t/TJ
2022	TSP	1A3biv	DIESEL OIL (S=001%)	0.111092858	t/TJ
2022	TSP	1A3biv	MOTOR GASOLINE (S=0.001%)	0.007201619	t/TJ
2022	TSP	1A3c	GASOIL (FOR NON-ROAD USE)	0.034227969	t/TJ
2022	TSP	1A3dii	DIESEL OIL (S=001%)	0.103038229	t/TJ
2022	TSP	1A3dii	GASOIL (FOR NON-ROAD USE)	0.028660446	t/TJ
2022	TSP	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.044538593	t/TJ
2022	TSP	1A3dii	MOTOR GASOLINE (S=0.001%)	0.126598503	t/TJ
2022	TSP	1A4ai	FOREST WOODFUEL	0.016831111	t/TJ
2022	TSP	1A4ai	GASOIL (FOR NON-ROAD USE)	0.002335218	t/TJ
2022	TSP	1A4ai	HEAVY FUEL OIL (S<1%)	0.090000000	t/TJ
2022	TSP	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.007011016	t/TJ

2022	TSP	1A4ai	NAPHTHA	0.006318480	t/TJ
2022	TSP	1A4ai	SOD PEAT	0.352475248	t/TJ
2022	TSP	1A4aii	GASOIL (FOR NON-ROAD USE)	0.012127481	t/TJ
2022	TSP	1A4aii	MOTOR GASOLINE (S=0.001%)	0.047306897	t/TJ
2022	TSP	1A4bi	FOREST WOODFUEL	0.160428866	t/TJ
2022	TSP	1A4bi	HEAVY FUEL OIL (S<1%)	0.090000000	t/TJ
2022	TSP	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.007000000	t/TJ
2022	TSP	1A4bi	PARAFFIN	0.007000000	t/TJ
2022	TSP	1A4bi	SOD PEAT	0.400000000	t/TJ
2022	TSP	1A4bii	GASOIL (FOR NON-ROAD USE)	0.071091975	t/TJ
2022	TSP	1A4bii	MOTOR GASOLINE (S=0.001%)	0.048901497	t/TJ
2022	TSP	1A4ci	ANIMAL-BASED FUELS	0.046391752	t/TJ
2022	TSP	1A4ci	CHIPS FROM ROUNDWOOD	0.104182801	t/TJ
2022	TSP	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.199999993	t/TJ
2022	TSP	1A4ci	COAL (S=1.0%)	0.035000000	t/TJ
2022	TSP	1A4ci	FOREST WOODFUEL	0.016666667	t/TJ
2022	TSP	1A4ci	HEAVY FUEL OIL (S<1%)	0.090000000	t/TJ
2022	TSP	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.007000000	t/TJ
2022	TSP	1A4ci	OTHER NON-FOSSIL SOLID	0.016410256	t/TJ
2022	TSP	1A4ci	RECOVERED WOOD	0.137551576	t/TJ
2022	TSP	1A4ci	SOD PEAT	0.394246707	t/TJ
2022	TSP	1A4ci	WOOD RESIDUE CHIPS	0.927835021	t/TJ
2022	TSP	1A4cii	GASOIL (FOR NON-ROAD USE)	0.010953866	t/TJ
2022	TSP	1A4cii	MOTOR GASOLINE (S=0.001%)	0.131092027	t/TJ
2022	TSP	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.032865680	t/TJ
2022	TSP	1A5a	FOREST WOODFUEL	0.200000000	t/TJ
2022	TSP	1A5a	KEROSENE (JET FUEL)	0.009917755	t/TJ
2022	TSP	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.008732237	t/TJ
2022	TSP	1A5a	OTHER PETROLEUM PRODUCTS	0.007000000	t/TJ

#### BC Implied emission factors in Finnish air pollutant inventory for 2022

2022	BC	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000001196	t/TJ
2022	BC	1A1a	ANIMAL-BASED FUELS	0.000033909	t/TJ
2022	BC	1A1a	ASPHALTENE	0.000028416	t/TJ
2022	BC	1A1a	BARK	0.000023172	t/TJ
2022	BC	1A1a	BIO PYROLYSIS OIL	0.000071137	t/TJ
2022	BC	1A1a	BIO-FUEL OIL	0.000192310	t/TJ
2022	BC	1A1a	CHIPS FROM ROUNDWOOD	0.000016039	t/TJ
2022	BC	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000022764	t/TJ
2022	BC	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.000010433	t/TJ
2022	BC	1A1a	COAL (S=1.0%)	0.000019876	t/TJ
2022	BC	1A1a	CUTTER CHIPS ETC.	0.000043941	t/TJ
2022	BC	1A1a	DEMOLITION WOOD	0.000006983	t/TJ
2022	BC	1A1a	DIESEL OIL (S=0.001%)	0.000281398	t/TJ
2022	BC	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.000416950	t/TJ
2022	BC	1A1a	FOREST RESIDUE CHIPS	0.000005174	t/TJ
2022	BC	1A1a	FOREST RESIDUE CHIPS	0.000166932	t/TJ
2022	BC	1A1a	GASOIL (FOR NON-ROAD USE)	0.000128101	t/TJ
2022	BC	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.003981575	t/TJ
2022	BC	1A1a	HEAVY FUEL OIL (S<0,1%)	0.000276347	t/TJ
2022	BC	1A1a	HEAVY FUEL OIL (S<0,5%)	0.000450262	t/TJ
2022	BC	1A1a	HEAVY FUEL OIL (S<1%)	0.001255834	t/TJ
2022	BC	1A1a	IMPREGNATED WOOD	0.000010161	t/TJ
2022	BC	1A1a	INDUSTRIAL WASTE	0.000019722	t/TJ
2022	BC	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.000188513	t/TJ

2022	BC	1A1a	LIGNIN	0.000014831	t/TJ
2022	BC	1A1a	MILLED PEAT	0.000017290	t/TJ
2022	BC	1A1a	MOTOR GASOLINE (S=0.001%)	0.000003944	t/TJ
2022	BC	1A1a	MUNICIPAL WASTE - unsorted	0.000000224	t/TJ
2022	BC	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000053002	t/TJ
2022	BC	1A1a	OTHER FOSSIL SOLID	0.000004447	t/TJ
2022	BC	1A1a	OTHER FUEL	0.000002540	t/TJ
2022	BC	1A1a	OTHER MEDIUM DISTILLATES	0.000905729	t/TJ
2022	BC	1A1a	OTHER NON-FOSSIL SOLID	0.000021866	t/TJ
2022	BC	1A1a	OTHER NON-FOSSIL SOLID	0.000012677	t/TJ
2022	BC	1A1a	OTHER NON-FOSSIL SOLID	0.000011408	t/TJ
2022	BC	1A1a	OTHER WASTE	0.000013156	t/TJ
2022	BC	1A1a	OTHER WOOD RESIDUE	0.000018390	t/TJ
2022	BC	1A1a	PAPER	0.000003582	t/TJ
2022	BC	1A1a	RECOVERED FUEL (REF 2)	0.000200000	t/TJ
2022	BC	1A1a	RECOVERED WOOD	0.000007071	t/TJ
2022	BC	1A1a	RECYCLED AND WASTE OILS	0.000055978	t/TJ
2022	BC	1A1a	RENEWABLE DIESEL	0.000281400	t/TJ
2022	BC	1A1a	SAWDUST	0.000020637	t/TJ
2022	BC	1A1a	SOD PEAT	0.000320764	t/TJ
2022	BC	1A1a	SOLID RECOVERED FUEL (SRF)	0.000002833	t/TJ
2022	BC	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000014569	t/TJ
2022	BC	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000019389	t/TJ
2022	BC	1A1a	WOOD RESIDUE CHIPS	0.000020993	t/TJ
2022	BC	1A1a	WOOD STUMP CHIPS	0.000007905	t/TJ
2022	BC	1A1b	COKE (S=1.0%)	0.000150000	t/TJ
2022	BC	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.000048644	t/TJ
2022	BC	1A1b	OTHER FOSSIL LIQUID	0.000407818	t/TJ
2022	BC	1A1b	OTHER MEDIUM DISTILLATES	0.000042223	t/TJ
2022	BC	1A1b	PETROLEUM COKE	0.000057686	t/TJ
2022	BC	1A2a	COKE (S=1.0%)	0.000036445	t/TJ
2022	BC	1A2a	DIESEL OIL (S=0.001%)	0.000281400	t/TJ
2022	BC	1A2a	GASOIL (FOR NON-ROAD USE)	0.000150436	t/TJ
2022	BC	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.000281043	t/TJ
2022	BC	1A2a	OTHER FOSSIL SOLID	0.000097901	t/TJ
2022	BC	1A2a	WOOD RESIDUE CHIPS	0.000023478	t/TJ
2022	BC	1A2b	COAL (S=1.0%)	0.000055000	t/TJ
2022	BC	1A2b	COKE (S=1.0%)	0.000024179	t/TJ
2022	BC	1A2b	HEAVY FUEL OIL (S<1%)	0.002411037	t/TJ
2022	BC	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.000066994	t/TJ
2022	BC	1A2b	OTHER HEAVY DISTILLATES	0.000379126	t/TJ
2022	BC	1A2c	DIESEL OIL (S=0.001%)	0.000281400	t/TJ
2022	BC	1A2c	GASOIL (FOR NON-ROAD USE)	0.000574978	t/TJ
2022	BC	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.000810228	t/TJ
2022	BC	1A2c	HEAVY FUEL OIL (S<0,1%)	0.002179367	t/TJ
2022	BC	1A2c	HEAVY FUEL OIL (S<1%)	0.006381877	t/TJ
2022	BC	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.000404428	t/TJ
2022	BC	1A2c	OTHER FOSSIL LIQUID	0.001493661	t/TJ
2022	BC	1A2c	OTHER MEDIUM DISTILLATES	0.000540000	t/TJ
2022	BC	1A2c	TALL PITCH AND OIL	0.000607587	t/TJ
2022	BC	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000057984	t/TJ
2022	BC	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000024017	t/TJ
2022	BC	1A2d	ANIMAL-BASED FUELS	0.001136629	t/TJ
2022	BC	1A2d	BARK	0.000038048	t/TJ
2022	BC	1A2d	BIOLOGICAL SLURRY	0.000003650	t/TJ
2022	BC	1A2d	CHIPS FROM ROUNDWOOD	0.000045560	t/TJ

2022	BC	1A2d	COAL (S=1.0%)	0.000011380	t/TJ
2022	BC	1A2d	CUTTER CHIPS ETC.	0.000006072	t/TJ
2022	BC	1A2d	DEMOLITION WOOD	0.000018233	t/TJ
2022	BC	1A2d	FOREST RESIDUE CHIPS	0.000022791	t/TJ
2022	BC	1A2d	GASOIL (FOR NON-ROAD USE)	0.000204546	t/TJ
2022	BC	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.000825484	t/TJ
2022	BC	1A2d	HEAVY FUEL OIL (S<0,1%)	0.001150251	t/TJ
2022	BC	1A2d	HEAVY FUEL OIL (S<1%)	0.001217627	t/TJ
2022	BC	1A2d	IMPREGNATED WOOD	0.000018233	t/TJ
2022	BC	1A2d	INDUSTRIAL WASTE	0.000311544	t/TJ
2022	BC	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.000237562	t/TJ
2022	BC	1A2d	METHANOL	0.000008275	t/TJ
2022	BC	1A2d	MILLED PEAT	0.000044405	t/TJ
2022	BC	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000100261	t/TJ
2022	BC	1A2d	OTHER FUEL	0.005870953	t/TJ
2022	BC	1A2d	PAPER	0.000101045	t/TJ
2022	BC	1A2d	PLASTIC WASTE	0.000501298	t/TJ
2022	BC	1A2d	RECOVERED WOOD	0.000041935	t/TJ
2022	BC	1A2d	RECYCLED AND WASTE OILS	0.000354980	t/TJ
2022	BC	1A2d	SAWDUST	0.000060178	t/TJ
2022	BC	1A2d	SOLID RECOVERED FUEL (SRF)	0.000004954	t/TJ
2022	BC	1A2d	TALL PITCH AND OIL	0.002246802	t/TJ
2022	BC	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000016483	t/TJ
2022	BC	1A2d	WOOD RESIDUE CHIPS	0.000013982	t/TJ
2022	BC	1A2d	WOOD STUMP CHIPS	0.000018233	t/TJ
2022	BC	1A2e	ANIMAL FATS AND OILS	0.000076783	t/TJ
2022	BC	1A2e	ANIMAL-BASED FUELS	0.007200000	t/TJ
2022	BC	1A2e	BIO-FUEL OIL	0.000027720	t/TJ
2022	BC	1A2e	CHIPS FROM ROUNDWOOD	0.000022385	t/TJ
2022	BC	1A2e	COAL (S=1.0%)	0.000016780	t/TJ
2022	BC	1A2e	COKE (S=1.0%)	0.000000958	t/TJ
2022	BC	1A2e	FOREST RESIDUE CHIPS	0.000008751	t/TJ
2022	BC	1A2e	GASOIL (FOR NON-ROAD USE)	0.000256179	t/TJ
2022	BC	1A2e	HEAVY FUEL OIL (S<0,1%)	0.004487094	t/TJ
2022	BC	1A2e	HEAVY FUEL OIL (S<1%)	0.003905997	t/TJ
2022	BC	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.000421888	t/TJ
2022	BC	1A2e	MILLED PEAT	0.000008017	t/TJ
2022	BC	1A2e	NAPHTHA	0.000027720	t/TJ
2022	BC	1A2e	OTHER MEDIUM DISTILLATES	0.000027574	t/TJ
2022	BC	1A2e	OTHER NON-FOSSIL SOLID	0.001572365	t/TJ
2022	BC	1A2e	PEAT PELLETS AND BRIQUETTES	0.000011595	t/TJ
2022	BC	1A2e	RECOVERED WOOD	0.000006787	t/TJ
2022	BC	1A2e	SOD PEAT	0.000049695	t/TJ
2022	BC	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000326990	t/TJ
2022	BC	1A2e	WOOD STUMP CHIPS	0.000017393	t/TJ
2022	BC	1A2f	CHIPS FROM ROUNDWOOD	0.000038056	t/TJ
2022	BC	1A2f	COAL (S=1.0%)	0.000002247	t/TJ
2022	BC	1A2f	COKE (S=1.0%)	0.000025352	t/TJ
2022	BC	1A2f	CUTTER CHIPS ETC.	0.000000548	t/TJ
2022	BC	1A2f	DIESEL OIL (S=001%)	0.000157060	t/TJ
2022	BC	1A2f	FOREST RESIDUE CHIPS	0.000115500	t/TJ
2022	BC	1A2f	GASOIL (FOR NON-ROAD USE)	0.000277005	t/TJ
2022	BC	1A2f	HEAVY FUEL OIL (S<0,1%)	0.007767583	t/TJ
2022	BC	1A2f	HEAVY FUEL OIL (S<1%)	0.010247851	t/TJ
2022	BC	1A2f	INDUSTRIAL WASTE	0.000039916	t/TJ
2022	BC	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.001550707	t/TJ

2022	BC	1A2f	MOTOR GASOLINE (S=0.001%)	0.000121598	t/TJ
2022	BC	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000061178	t/TJ
2022	BC	1A2f	OTHER FOSSIL LIQUID	0.000426661	t/TJ
2022	BC	1A2f	OTHER FUEL	0.000061109	t/TJ
2022	BC	1A2f	OTHER HEAVY DISTILLATES	0.002464011	t/TJ
2022	BC	1A2f	PETROLEUM COKE	0.000013585	t/TJ
2022	BC	1A2f	PLASTIC WASTE	0.000086631	t/TJ
2022	BC	1A2f	RECYCLED AND WASTE OILS	0.000057534	t/TJ
2022	BC	1A2f	RUBBER WASTE	0.001130226	t/TJ
2022	BC	1A2f	SAWDUST	0.000002274	t/TJ
2022	BC	1A2f	SOLID RECOVERED FUEL (SRF)	0.000003581	t/TJ
2022	BC	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000002162	t/TJ
2022	BC	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.009214933	t/TJ
2022	BC	1A2gvii	LIQUID GAS	0.000207042	t/TJ
2022	BC	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.000219709	t/TJ
2022	BC	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000008784	t/TJ
2022	BC	1A2gviii	BARK	0.000866201	t/TJ
2022	BC	1A2gviii	CHIPS FROM ROUNDWOOD	0.000005028	t/TJ
2022	BC	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.000042436	t/TJ
2022	BC	1A2gviii	CUTTER CHIPS ETC.	0.000179878	t/TJ
2022	BC	1A2gviii	DEMOLITION WOOD	0.000003301	t/TJ
2022	BC	1A2gviii	DIESEL OIL (S=0.001%)	0.000279981	t/TJ
2022	BC	1A2gviii	FOREST RESIDUE CHIPS	0.000330000	t/TJ
2022	BC	1A2gviii	FOREST RESIDUE CHIPS	0.000030089	t/TJ
2022	BC	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.000441595	t/TJ
2022	BC	1A2gviii	HAZARDOUS WASTE	0.000016499	t/TJ
2022	BC	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.006588235	t/TJ
2022	BC	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.005314599	t/TJ
2022	BC	1A2gviii	HEAVY FUEL OIL (S<1%)	0.007876935	t/TJ
2022	BC	1A2gviii	IMPREGNATED WOOD	0.000005439	t/TJ
2022	BC	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.000517496	t/TJ
2022	BC	1A2gviii	MILLED PEAT	0.000025664	t/TJ
2022	BC	1A2gviii	MUNICIPAL WASTE - unsorted	0.000000156	t/TJ
2022	BC	1A2gviii	NAPHTHA	0.000089849	t/TJ
2022	BC	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000010908	t/TJ
2022	BC	1A2gviii	OTHER HEAVY DISTILLATES	0.002891316	t/TJ
2022	BC	1A2gviii	OTHER NON-FOSSIL SOLID	0.000006375	t/TJ
2022	BC	1A2gviii	OTHER NON-FOSSIL SOLID	0.000009684	t/TJ
2022	BC	1A2gviii	OTHER WASTE	0.000029385	t/TJ
2022	BC	1A2gviii	OTHER WOOD RESIDUE	0.000529203	t/TJ
2022	BC	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.000077502	t/TJ
2022	BC	1A2gviii	PLASTIC WASTE	0.000060786	t/TJ
2022	BC	1A2gviii	RECOVERED WOOD	0.000002463	t/TJ
2022	BC	1A2gviii	RECYCLED AND WASTE OILS	0.000709232	t/TJ
2022	BC	1A2gviii	RENEWABLE DIESEL	0.000281400	t/TJ
2022	BC	1A2gviii	SAWDUST	0.000042419	t/TJ
2022	BC	1A2gviii	SAWDUST AND CUTTER CHIPS	0.003738060	t/TJ
2022	BC	1A2gviii	SOD PEAT	0.000155200	t/TJ
2022	BC	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000001153	t/TJ
2022	BC	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000380934	t/TJ
2022	BC	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000262466	t/TJ
2022	BC	1A2gviii	WOOD RESIDUE CHIPS	0.000192872	t/TJ
2022	BC	1A2gviii	WOOD STUMP CHIPS	0.000000810	t/TJ
2022	BC	1A3ai(i)	KEROSENE (JET FUEL)	0.001223014	t/TJ
2022	BC	1A3aii(i)	AVIATION GASOLINE	0.004050000	t/TJ
2022	BC	1A3aii(i)	KEROSENE (JET FUEL)	0.001271431	t/TJ

2022	BC	1A3bi	DIESEL OIL (S=001%)	0.003830123	t/TJ
2022	BC	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000090932	t/TJ
2022	BC	1A3bii	DIESEL OIL (S=001%)	0.008137730	t/TJ
2022	BC	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000044865	t/TJ
2022	BC	1A3biii	DIESEL OIL (S=001%)	0.001037416	t/TJ
2022	BC	1A3biv	DIESEL OIL (S=001%)	0.063322929	t/TJ
2022	BC	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000792178	t/TJ
2022	BC	1A3c	GASOIL (FOR NON-ROAD USE)	0.020052636	t/TJ
2022	BC	1A3dii	DIESEL OIL (S=001%)	0.056671026	t/TJ
2022	BC	1A3dii	GASOIL (FOR NON-ROAD USE)	0.008884738	t/TJ
2022	BC	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.005344631	t/TJ
2022	BC	1A3dii	MOTOR GASOLINE (S=0.001%)	0.006329925	t/TJ
2022	BC	1A4ai	FOREST WOODFUEL	0.000503700	t/TJ
2022	BC	1A4ai	GASOIL (FOR NON-ROAD USE)	0.000093876	t/TJ
2022	BC	1A4ai	HEAVY FUEL OIL (S<1%)	0.015120000	t/TJ
2022	BC	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.000281241	t/TJ
2022	BC	1A4ai	NAPHTHA	0.000025021	t/TJ
2022	BC	1A4ai	SOD PEAT	0.000581584	t/TJ
2022	BC	1A4aii	GASOIL (FOR NON-ROAD USE)	0.004972267	t/TJ
2022	BC	1A4aii	MOTOR GASOLINE (S=0.001%)	0.002365345	t/TJ
2022	BC	1A4bi	FOREST WOODFUEL	0.043045849	t/TJ
2022	BC	1A4bi	HEAVY FUEL OIL (S<1%)	0.006210000	t/TJ
2022	BC	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.001641500	t/TJ
2022	BC	1A4bi	PARAFFIN	0.003528000	t/TJ
2022	BC	1A4bi	SOD PEAT	0.010560000	t/TJ
2022	BC	1A4bii	GASOIL (FOR NON-ROAD USE)	0.029147710	t/TJ
2022	BC	1A4bii	MOTOR GASOLINE (S=0.001%)	0.002445075	t/TJ
2022	BC	1A4ci	ANIMAL-BASED FUELS	0.033402061	t/TJ
2022	BC	1A4ci	CHIPS FROM ROUNDWOOD	0.001203311	t/TJ
2022	BC	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.000115500	t/TJ
2022	BC	1A4ci	COAL (S=1.0%)	0.000075987	t/TJ
2022	BC	1A4ci	FOREST WOODFUEL	0.000500000	t/TJ
2022	BC	1A4ci	HEAVY FUEL OIL (S<1%)	0.015120000	t/TJ
2022	BC	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.000281400	t/TJ
2022	BC	1A4ci	OTHER NON-FOSSIL SOLID	0.000189538	t/TJ
2022	BC	1A4ci	RECOVERED WOOD	0.001588721	t/TJ
2022	BC	1A4ci	SOD PEAT	0.000650507	t/TJ
2022	BC	1A4ci	WOOD RESIDUE CHIPS	0.000535825	t/TJ
2022	BC	1A4cii	GASOIL (FOR NON-ROAD USE)	0.006298435	t/TJ
2022	BC	1A4cii	MOTOR GASOLINE (S=0.001%)	0.006554601	t/TJ
2022	BC	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.010188361	t/TJ
2022	BC	1A5a	FOREST WOODFUEL	0.002800000	t/TJ
2022	BC	1A5a	KEROSENE (JET FUEL)	0.004760522	t/TJ
2022	BC	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000824787	t/TJ
2022	BC	1A5a	OTHER PETROLEUM PRODUCTS	0.000047040	t/TJ

#### CO Implied emission factors in Finnish air pollutant inventory for 2022

2022	CO	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.073531684	t/TJ
2022	CO	1A1a	ANIMAL-BASED FUELS	0.006377343	t/TJ
2022	CO	1A1a	ASPHALTENE	0.012637437	t/TJ
2022	CO	1A1a	BARK	0.053771230	t/TJ
2022	CO	1A1a	BIO PYROLYSIS OIL	0.019859651	t/TJ
2022	CO	1A1a	BIO-FUEL OIL	0.020000000	t/TJ
2022	CO	1A1a	BLAST FURNACE GAS	0.020000000	t/TJ
2022	CO	1A1a	CHIPS FROM ROUNDWOOD	0.119680771	t/TJ

2022	CO	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.053874055	t/TJ
2022	CO	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.187030288	t/TJ
2022	CO	1A1a	COAL (S=1.0%)	0.009318815	t/TJ
2022	CO	1A1a	COKE OVEN GAS	0.019999999	t/TJ
2022	CO	1A1a	CUTTER CHIPS ETC.	0.342688936	t/TJ
2022	CO	1A1a	DEINKING WASTE	0.022091534	t/TJ
2022	CO	1A1a	DEMOLITION WOOD	0.029700103	t/TJ
2022	CO	1A1a	DIESEL OIL (S=001%)	0.020000065	t/TJ
2022	CO	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.499999997	t/TJ
2022	CO	1A1a	FOREST RESIDUE CHIPS	0.148180123	t/TJ
2022	CO	1A1a	FOREST RESIDUE CHIPS	0.283719399	t/TJ
2022	CO	1A1a	GASOIL (FOR NON-ROAD USE)	0.025702246	t/TJ
2022	CO	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.005891615	t/TJ
2022	CO	1A1a	HEAVY FUEL OIL (S<0,1%)	0.018837658	t/TJ
2022	CO	1A1a	HEAVY FUEL OIL (S<0,5%)	0.020671360	t/TJ
2022	CO	1A1a	HEAVY FUEL OIL (S<1%)	0.017035644	t/TJ
2022	CO	1A1a	HYDROGEN	0.020000028	t/TJ
2022	CO	1A1a	IMPREGNATED WOOD	0.007731104	t/TJ
2022	CO	1A1a	INDUSTRIAL WASTE	0.029491884	t/TJ
2022	CO	1A1a	LANDFILL GAS	0.017241088	t/TJ
2022	CO	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.023027590	t/TJ
2022	CO	1A1a	LIGNIN	0.003871974	t/TJ
2022	CO	1A1a	LIQUEFIED NATURAL GAS (LNG)	0.058563733	t/TJ
2022	CO	1A1a	LIQUID GAS	0.036002370	t/TJ
2022	CO	1A1a	MILLED PEAT	0.030255630	t/TJ
2022	CO	1A1a	MOTOR GASOLINE (S=0.001%)	0.020000000	t/TJ
2022	CO	1A1a	MUNICIPAL WASTE - unsorted	0.006245507	t/TJ
2022	CO	1A1a	NATURAL GAS	0.022912275	t/TJ
2022	CO	1A1a	NATURAL GAS	0.015403218	t/TJ
2022	CO	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.126984907	t/TJ
2022	CO	1A1a	OTHER FOSSIL GAS	0.339822135	t/TJ
2022	CO	1A1a	OTHER FOSSIL SOLID	0.029670167	t/TJ
2022	CO	1A1a	OTHER FUEL	0.029469838	t/TJ
2022	CO	1A1a	OTHER MEDIUM DISTILLATES	0.020000000	t/TJ
2022	CO	1A1a	OTHER NON-FOSSIL GAS	0.159799058	t/TJ
2022	CO	1A1a	OTHER NON-FOSSIL SOLID	0.150000046	t/TJ
2022	CO	1A1a	OTHER NON-FOSSIL SOLID	0.493946714	t/TJ
2022	CO	1A1a	OTHER NON-FOSSIL SOLID	0.488084576	t/TJ
2022	CO	1A1a	OTHER WASTE	0.002816737	t/TJ
2022	CO	1A1a	OTHER WOOD RESIDUE	0.025583716	t/TJ
2022	CO	1A1a	PAPER	0.350587606	t/TJ
2022	CO	1A1a	RECOVERED FUEL (REF 2)	0.400000000	t/TJ
2022	CO	1A1a	RECOVERED WOOD	0.028995390	t/TJ
2022	CO	1A1a	RECYCLED AND WASTE OILS	0.005968533	t/TJ
2022	CO	1A1a	RENEWABLE DIESEL	0.020000000	t/TJ
2022	CO	1A1a	SAWDUST	0.209840066	t/TJ
2022	CO	1A1a	SOD PEAT	0.124561783	t/TJ
2022	CO	1A1a	SOLID RECOVERED FUEL (SRF)	0.014309315	t/TJ
2022	CO	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.121563229	t/TJ
2022	CO	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.155576629	t/TJ
2022	CO	1A1a	WOOD RESIDUE CHIPS	0.255652607	t/TJ
2022	CO	1A1a	WOOD STUMP CHIPS	0.166473946	t/TJ
2022	CO	1A1b	COKE (S=1.0%)	1.499999952	t/TJ
2022	CO	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.020000000	t/TJ
2022	CO	1A1b	NATURAL GAS	0.019999996	t/TJ
2022	CO	1A1b	NATURAL GAS	0.019999982	t/TJ

2022	CO	1A1b	OTHER FOSSIL GAS	0.019999998	t/TJ
2022	CO	1A1b	OTHER FOSSIL LIQUID	0.020000000	t/TJ
2022	CO	1A1b	OTHER MEDIUM DISTILLATES	0.020000000	t/TJ
2022	CO	1A1b	OTHER NON-FOSSIL GAS	0.020000000	t/TJ
2022	CO	1A1b	PETROLEUM COKE	0.030000000	t/TJ
2022	CO	1A1b	REFINERY GAS	0.019999995	t/TJ
2022	CO	1A1b	REFINERY GASES	0.020000000	t/TJ
2022	CO	1A1b	SULPHUR CONCENTRATE	0.049999951	t/TJ
2022	CO	1A2a	BLAST FURNACE GAS	0.019999997	t/TJ
2022	CO	1A2a	COKE (S=1.0%)	0.512185944	t/TJ
2022	CO	1A2a	COKE OVEN GAS	0.020000004	t/TJ
2022	CO	1A2a	DIESEL OIL (S=001%)	0.019999999	t/TJ
2022	CO	1A2a	GASOIL (FOR NON-ROAD USE)	0.020653222	t/TJ
2022	CO	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.017840173	t/TJ
2022	CO	1A2a	LIQUID GAS	0.029034499	t/TJ
2022	CO	1A2a	NATURAL GAS	0.019807021	t/TJ
2022	CO	1A2a	OTHER FOSSIL SOLID	1.499999971	t/TJ
2022	CO	1A2a	WOOD RESIDUE CHIPS	0.009531039	t/TJ
2022	CO	1A2b	COAL (S=1.0%)	0.029999941	t/TJ
2022	CO	1A2b	COKE (S=1.0%)	0.020000003	t/TJ
2022	CO	1A2b	HEAVY FUEL OIL (S<1%)	0.019999995	t/TJ
2022	CO	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.020350523	t/TJ
2022	CO	1A2b	LIQUEFIED NATURAL GAS (LNG)	0.020000001	t/TJ
2022	CO	1A2b	LIQUID GAS	0.330767989	t/TJ
2022	CO	1A2b	NATURAL GAS	0.019999997	t/TJ
2022	CO	1A2b	OTHER HEAVY DISTILLATES	0.020000000	t/TJ
2022	CO	1A2c	DIESEL OIL (S=001%)	77.142858457	t/TJ
2022	CO	1A2c	GASIFIED WASTE	0.000039951	t/TJ
2022	CO	1A2c	GASOIL (FOR NON-ROAD USE)	0.020000000	t/TJ
2022	CO	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.008799850	t/TJ
2022	CO	1A2c	HEAVY FUEL OIL (S<0,1%)	0.020000001	t/TJ
2022	CO	1A2c	HEAVY FUEL OIL (S<1%)	0.019755635	t/TJ
2022	CO	1A2c	HYDROGEN	0.020000000	t/TJ
2022	CO	1A2c	LANDFILL GAS	0.020000001	t/TJ
2022	CO	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.018890540	t/TJ
2022	CO	1A2c	LIQUEFIED NATURAL GAS (LNG)	0.020000003	t/TJ
2022	CO	1A2c	LIQUID GAS	0.019952446	t/TJ
2022	CO	1A2c	NATURAL GAS	0.013202106	t/TJ
2022	CO	1A2c	OTHER FOSSIL GAS	0.020000001	t/TJ
2022	CO	1A2c	OTHER FOSSIL LIQUID	0.020000019	t/TJ
2022	CO	1A2c	OTHER MEDIUM DISTILLATES	0.020000000	t/TJ
2022	CO	1A2c	TALL PITCH AND OIL	0.019928493	t/TJ
2022	CO	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.206563713	t/TJ
2022	CO	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.210202392	t/TJ
2022	CO	1A2d	ANIMAL-BASED FUELS	0.006371812	t/TJ
2022	CO	1A2d	AROMATIC GAS	0.016686114	t/TJ
2022	CO	1A2d	BARK	0.076413962	t/TJ
2022	CO	1A2d	BIOGAS FROM WASTEWATER TREATMENT	0.016129895	t/TJ
2022	CO	1A2d	BIOLOGICAL SLURRY	0.047046095	t/TJ
2022	CO	1A2d	BLACK LIQUOR	0.068889853	t/TJ
2022	CO	1A2d	CHIPS FROM ROUNDWOOD	0.255648496	t/TJ
2022	CO	1A2d	COAL (S=1.0%)	0.007121159	t/TJ
2022	CO	1A2d	CUTTER CHIPS ETC.	0.049034251	t/TJ
2022	CO	1A2d	DEMOLITION WOOD	0.006371812	t/TJ
2022	CO	1A2d	FOREST RESIDUE CHIPS	0.032706843	t/TJ
2022	CO	1A2d	GASOIL (FOR NON-ROAD USE)	0.019949723	t/TJ

2022	CO	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.029493536	t/TJ
2022	CO	1A2d	HEAVY FUEL OIL (S<0,1%)	0.019872299	t/TJ
2022	CO	1A2d	HEAVY FUEL OIL (S<1%)	0.029816277	t/TJ
2022	CO	1A2d	HYDROGEN	0.020000000	t/TJ
2022	CO	1A2d	IMPREGNATED WOOD	0.006371812	t/TJ
2022	CO	1A2d	INDUSTRIAL WASTE	0.006887925	t/TJ
2022	CO	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.032520670	t/TJ
2022	CO	1A2d	LIQUEFIED NATURAL GAS (LNG)	0.020000000	t/TJ
2022	CO	1A2d	LIQUID GAS	0.020000461	t/TJ
2022	CO	1A2d	METHANOL	0.063096988	t/TJ
2022	CO	1A2d	MILLED PEAT	0.044605709	t/TJ
2022	CO	1A2d	NATURAL GAS	0.020000000	t/TJ
2022	CO	1A2d	NATURAL GAS	0.023629541	t/TJ
2022	CO	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.150000000	t/TJ
2022	CO	1A2d	OTHER FUEL	8.627258628	t/TJ
2022	CO	1A2d	OTHER NON-FOSSIL GAS	0.020000000	t/TJ
2022	CO	1A2d	OTHER WOOD RESIDUE	0.500000000	t/TJ
2022	CO	1A2d	PAPER	0.428849962	t/TJ
2022	CO	1A2d	PLASTIC WASTE	0.007160659	t/TJ
2022	CO	1A2d	RECOVERED WOOD	0.061547602	t/TJ
2022	CO	1A2d	RECYCLED AND WASTE OILS	0.006371812	t/TJ
2022	CO	1A2d	SAWDUST	0.359880584	t/TJ
2022	CO	1A2d	SOLID RECOVERED FUEL (SRF)	0.041661136	t/TJ
2022	CO	1A2d	TALL PITCH AND OIL	0.046750132	t/TJ
2022	CO	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.228445605	t/TJ
2022	CO	1A2d	WOOD RESIDUE CHIPS	0.027020071	t/TJ
2022	CO	1A2d	WOOD STUMP CHIPS	0.021239372	t/TJ
2022	CO	1A2e	ANIMAL FATS AND OILS	0.000881714	t/TJ
2022	CO	1A2e	ANIMAL-BASED FUELS	0.400000000	t/TJ
2022	CO	1A2e	BIO-FUEL OIL	0.020000000	t/TJ
2022	CO	1A2e	BIOGAS FROM WASTEWATER TREATMENT	0.020000001	t/TJ
2022	CO	1A2e	CHIPS FROM ROUNDWOOD	0.500000002	t/TJ
2022	CO	1A2e	COAL (S=1.0%)	0.029999994	t/TJ
2022	CO	1A2e	COKE (S=1.0%)	0.049999967	t/TJ
2022	CO	1A2e	FOREST RESIDUE CHIPS	0.499999985	t/TJ
2022	CO	1A2e	GASOIL (FOR NON-ROAD USE)	0.022634697	t/TJ
2022	CO	1A2e	HEAVY FUEL OIL (S<0,1%)	0.020000000	t/TJ
2022	CO	1A2e	HEAVY FUEL OIL (S<1%)	0.017551725	t/TJ
2022	CO	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.020343725	t/TJ
2022	CO	1A2e	LIQUEFIED NATURAL GAS (LNG)	0.000745691	t/TJ
2022	CO	1A2e	LIQUID GAS	0.012352347	t/TJ
2022	CO	1A2e	MILLED PEAT	0.096362154	t/TJ
2022	CO	1A2e	NAPHTHA	0.020000001	t/TJ
2022	CO	1A2e	NATURAL GAS	0.019999998	t/TJ
2022	CO	1A2e	NATURAL GAS	0.020000000	t/TJ
2022	CO	1A2e	OTHER MEDIUM DISTILLATES	0.000178694	t/TJ
2022	CO	1A2e	OTHER NON-FOSSIL GAS	0.020000000	t/TJ
2022	CO	1A2e	OTHER NON-FOSSIL SOLID	0.500000000	t/TJ
2022	CO	1A2e	PEAT PELLETS AND BRIQUETTES	0.100000002	t/TJ
2022	CO	1A2e	RECOVERED WOOD	0.149999832	t/TJ
2022	CO	1A2e	SOD PEAT	0.499999996	t/TJ
2022	CO	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.400000000	t/TJ
2022	CO	1A2e	WOOD STUMP CHIPS	0.500000009	t/TJ
2022	CO	1A2f	CHIPS FROM ROUNDWOOD	0.400000006	t/TJ
2022	CO	1A2f	COAL (S=1.0%)	0.792980054	t/TJ
2022	CO	1A2f	COKE (S=1.0%)	1.215423992	t/TJ

2022	CO	1A2f	COKE OVEN GAS	0.020000069	t/TJ
2022	CO	1A2f	CUTTER CHIPS ETC.	0.499999995	t/TJ
2022	CO	1A2f	DIESEL OIL (S=001%)	0.020000000	t/TJ
2022	CO	1A2f	FOREST RESIDUE CHIPS	0.500000013	t/TJ
2022	CO	1A2f	GASOIL (FOR NON-ROAD USE)	0.020144727	t/TJ
2022	CO	1A2f	HEAVY FUEL OIL (S<0,1%)	0.020000000	t/TJ
2022	CO	1A2f	HEAVY FUEL OIL (S<1%)	0.049454825	t/TJ
2022	CO	1A2f	INDUSTRIAL WASTE	0.149999996	t/TJ
2022	CO	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.053361696	t/TJ
2022	CO	1A2f	LIQUID GAS	0.014518561	t/TJ
2022	CO	1A2f	MOTOR GASOLINE (S=0.001%)	0.020000000	t/TJ
2022	CO	1A2f	NATURAL GAS	0.040095571	t/TJ
2022	CO	1A2f	NATURAL GAS	0.020000000	t/TJ
2022	CO	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.150000004	t/TJ
2022	CO	1A2f	OTHER FOSSIL GAS	0.015579764	t/TJ
2022	CO	1A2f	OTHER FOSSIL LIQUID	0.020000000	t/TJ
2022	CO	1A2f	OTHER FUEL	0.149999995	t/TJ
2022	CO	1A2f	OTHER HEAVY DISTILLATES	0.020000001	t/TJ
2022	CO	1A2f	OTHER NON-FOSSIL GAS	0.019999999	t/TJ
2022	CO	1A2f	PETROLEUM COKE	0.020000000	t/TJ
2022	CO	1A2f	PLASTIC WASTE	0.149999796	t/TJ
2022	CO	1A2f	RECYCLED AND WASTE OILS	0.115860797	t/TJ
2022	CO	1A2f	RUBBER WASTE	1.499998271	t/TJ
2022	CO	1A2f	SAWDUST	2.224527223	t/TJ
2022	CO	1A2f	SOLID RECOVERED FUEL (SRF)	0.250000000	t/TJ
2022	CO	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	1.689908846	t/TJ
2022	CO	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.295060633	t/TJ
2022	CO	1A2gvii	LIQUID GAS	0.951423927	t/TJ
2022	CO	1A2gvii	MOTOR GASOLINE (S=0.001%)	24.494730707	t/TJ
2022	CO	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.035087072	t/TJ
2022	CO	1A2gviii	BARK	0.283507158	t/TJ
2022	CO	1A2gviii	BIOGAS FROM WASTEWATER TREATMENT	0.218445295	t/TJ
2022	CO	1A2gviii	CHIPS FROM ROUNDWOOD	0.076802313	t/TJ
2022	CO	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.499999990	t/TJ
2022	CO	1A2gviii	CUTTER CHIPS ETC.	0.530404885	t/TJ
2022	CO	1A2gviii	DEMOLITION WOOD	0.000994210	t/TJ
2022	CO	1A2gviii	DIESEL OIL (S=001%)	0.030125296	t/TJ
2022	CO	1A2gviii	FOREST RESIDUE CHIPS	0.208762515	t/TJ
2022	CO	1A2gviii	FOREST RESIDUE CHIPS	0.400000000	t/TJ
2022	CO	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.016780828	t/TJ
2022	CO	1A2gviii	HAZARDOUS WASTE	0.003087082	t/TJ
2022	CO	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.020000000	t/TJ
2022	CO	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.020000024	t/TJ
2022	CO	1A2gviii	HEAVY FUEL OIL (S<1%)	0.019025570	t/TJ
2022	CO	1A2gviii	IMPREGNATED WOOD	0.001217309	t/TJ
2022	CO	1A2gviii	LANDFILL GAS	0.238842330	t/TJ
2022	CO	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.030659653	t/TJ
2022	CO	1A2gviii	LIQUEFIED NATURAL GAS (LNG)	0.023406075	t/TJ
2022	CO	1A2gviii	LIQUID GAS	0.022836018	t/TJ
2022	CO	1A2gviii	MILLED PEAT	0.050955464	t/TJ
2022	CO	1A2gviii	MUNICIPAL WASTE - unsorted	0.006835727	t/TJ
2022	CO	1A2gviii	NAPHTHA	0.020000000	t/TJ
2022	CO	1A2gviii	NATURAL GAS	0.029288889	t/TJ
2022	CO	1A2gviii	NATURAL GAS	0.025909732	t/TJ
2022	CO	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.151508567	t/TJ
2022	CO	1A2gviii	OTHER HEAVY DISTILLATES	0.020000000	t/TJ

2022	CO	1A2gviii	OTHER NON-FOSSIL GAS	0.020900490	t/TJ
2022	CO	1A2gviii	OTHER NON-FOSSIL SOLID	0.499999987	t/TJ
2022	CO	1A2gviii	OTHER NON-FOSSIL SOLID	0.186927733	t/TJ
2022	CO	1A2gviii	OTHER WASTE	0.001075550	t/TJ
2022	CO	1A2gviii	OTHER WOOD RESIDUE	1.147076822	t/TJ
2022	CO	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.100000002	t/TJ
2022	CO	1A2gviii	PLASTIC WASTE	0.000987802	t/TJ
2022	CO	1A2gviii	RECOVERED WOOD	0.008802016	t/TJ
2022	CO	1A2gviii	RECYCLED AND WASTE OILS	0.009930121	t/TJ
2022	CO	1A2gviii	RENEWABLE DIESEL	0.020000006	t/TJ
2022	CO	1A2gviii	SAWDUST	0.080129611	t/TJ
2022	CO	1A2gviii	SAWDUST AND CUTTER CHIPS	0.500000005	t/TJ
2022	CO	1A2gviii	SOD PEAT	0.499999929	t/TJ
2022	CO	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.015663764	t/TJ
2022	CO	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.385312227	t/TJ
2022	CO	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	2.183734839	t/TJ
2022	CO	1A2gviii	WOOD RESIDUE CHIPS	0.470495072	t/TJ
2022	CO	1A2gviii	WOOD STUMP CHIPS	0.044226821	t/TJ
2022	CO	1A3ai(i)	KEROSENE (JET FUEL)	0.317705374	t/TJ
2022	CO	1A3aii(i)	AVIATION GASOLINE	25.125163094	t/TJ
2022	CO	1A3aii(i)	KEROSENE (JET FUEL)	0.385150179	t/TJ
2022	CO	1A3bi	DIESEL OIL (S=001%)	0.032120007	t/TJ
2022	CO	1A3bi	MOTOR GASOLINE (S=0.001%)	0.395282582	t/TJ
2022	CO	1A3bi	NATURAL GAS	0.325907134	t/TJ
2022	CO	1A3bii	DIESEL OIL (S=001%)	0.094211895	t/TJ
2022	CO	1A3bii	MOTOR GASOLINE (S=0.001%)	2.124781183	t/TJ
2022	CO	1A3bii	NATURAL GAS	0.276628585	t/TJ
2022	CO	1A3biii	DIESEL OIL (S=001%)	0.036726841	t/TJ
2022	CO	1A3biii	NATURAL GAS	0.060208405	t/TJ
2022	CO	1A3biv	DIESEL OIL (S=001%)	0.906227726	t/TJ
2022	CO	1A3biv	MOTOR GASOLINE (S=0.001%)	2.115909665	t/TJ
2022	CO	1A3c	GASOIL (FOR NON-ROAD USE)	0.225159353	t/TJ
2022	CO	1A3dii	DIESEL OIL (S=001%)	0.476744047	t/TJ
2022	CO	1A3dii	GASOIL (FOR NON-ROAD USE)	0.183444616	t/TJ
2022	CO	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.193156271	t/TJ
2022	CO	1A3dii	MOTOR GASOLINE (S=0.001%)	14.477609073	t/TJ
2022	CO	1A3ei	NATURAL GAS	0.019999991	t/TJ
2022	CO	1A4ai	FOREST WOODFUEL	0.229078000	t/TJ
2022	CO	1A4ai	GASOIL (FOR NON-ROAD USE)	0.019999988	t/TJ
2022	CO	1A4ai	HEAVY FUEL OIL (S<1%)	0.020000000	t/TJ
2022	CO	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.020303938	t/TJ
2022	CO	1A4ai	NAPHTHA	0.020000000	t/TJ
2022	CO	1A4ai	NATURAL GAS	0.048770297	t/TJ
2022	CO	1A4ai	NATURAL GAS	0.020000000	t/TJ
2022	CO	1A4ai	SOD PEAT	0.176237624	t/TJ
2022	CO	1A4aii	GASOIL (FOR NON-ROAD USE)	0.271926212	t/TJ
2022	CO	1A4aii	MOTOR GASOLINE (S=0.001%)	22.937739653	t/TJ
2022	CO	1A4bi	FOREST WOODFUEL	2.868384042	t/TJ
2022	CO	1A4bi	HEAVY FUEL OIL (S<1%)	0.020000000	t/TJ
2022	CO	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.020000000	t/TJ
2022	CO	1A4bi	LIQUID GAS	0.050000000	t/TJ
2022	CO	1A4bi	NATURAL GAS	0.050000000	t/TJ
2022	CO	1A4bi	PARAFFIN	0.020000000	t/TJ
2022	CO	1A4bi	SOD PEAT	0.200000000	t/TJ
2022	CO	1A4bii	GASOIL (FOR NON-ROAD USE)	0.412692869	t/TJ
2022	CO	1A4bii	MOTOR GASOLINE (S=0.001%)	22.854933372	t/TJ

2022	CO	1A4ci	ANIMAL-BASED FUELS	0.149999998	t/TJ
2022	CO	1A4ci	CHIPS FROM ROUNDWOOD	0.500000013	t/TJ
2022	CO	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.499999982	t/TJ
2022	CO	1A4ci	COAL (S=1.0%)	0.050000000	t/TJ
2022	CO	1A4ci	FOREST WOODFUEL	0.233000000	t/TJ
2022	CO	1A4ci	HEAVY FUEL OIL (S<1%)	0.020000000	t/TJ
2022	CO	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.020000000	t/TJ
2022	CO	1A4ci	LIQUID GAS	0.050000000	t/TJ
2022	CO	1A4ci	NATURAL GAS	0.050000000	t/TJ
2022	CO	1A4ci	OTHER NON-FOSSIL SOLID	0.499999991	t/TJ
2022	CO	1A4ci	RECOVERED WOOD	0.149999994	t/TJ
2022	CO	1A4ci	SOD PEAT	0.207479857	t/TJ
2022	CO	1A4ci	WOOD RESIDUE CHIPS	0.499999984	t/TJ
2022	CO	1A4cii	GASOIL (FOR NON-ROAD USE)	0.241552165	t/TJ
2022	CO	1A4cii	MOTOR GASOLINE (S=0.001%)	19.306211449	t/TJ
2022	CO	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.197194083	t/TJ
2022	CO	1A5a	AVIATION GASOLINE	23.437500000	t/TJ
2022	CO	1A5a	FOREST WOODFUEL	0.500000000	t/TJ
2022	CO	1A5a	KEROSENE (JET FUEL)	0.241896468	t/TJ
2022	CO	1A5a	LANDFILL GAS	0.050000000	t/TJ
2022	CO	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.033261121	t/TJ
2022	CO	1A5a	LIQUID GAS	0.050000000	t/TJ
2022	CO	1A5a	OTHER PETROLEUM PRODUCTS	0.020000000	t/TJ

#### **Pb Implied emission factors in Finnish air pollutant inventory for 2022**

2022	Pb	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.001134164	kg/TJ
2022	Pb	1A1a	ANIMAL-BASED FUELS	0.000076042	kg/TJ
2022	Pb	1A1a	ANTHRACITE	0.000900659	kg/TJ
2022	Pb	1A1a	ASPHALTENE	0.015473385	kg/TJ
2022	Pb	1A1a	BARK	0.004366584	kg/TJ
2022	Pb	1A1a	CHIPS FROM ROUNDWOOD	0.003416939	kg/TJ
2022	Pb	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.001468097	kg/TJ
2022	Pb	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.005985025	kg/TJ
2022	Pb	1A1a	COAL (S=1.0%)	0.000762309	kg/TJ
2022	Pb	1A1a	CUTTER CHIPS ETC.	0.003680600	kg/TJ
2022	Pb	1A1a	DEINKING WASTE	0.018749683	kg/TJ
2022	Pb	1A1a	DEMOLITION WOOD	0.001365156	kg/TJ
2022	Pb	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.003400000	kg/TJ
2022	Pb	1A1a	FOREST RESIDUE CHIPS	0.019791036	kg/TJ
2022	Pb	1A1a	FOREST RESIDUE CHIPS	0.021586298	kg/TJ
2022	Pb	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.006683169	kg/TJ
2022	Pb	1A1a	HEAVY FUEL OIL (S<0,1%)	0.022870924	kg/TJ
2022	Pb	1A1a	HEAVY FUEL OIL (S<0,5%)	0.013571359	kg/TJ
2022	Pb	1A1a	HEAVY FUEL OIL (S<1%)	0.011186914	kg/TJ
2022	Pb	1A1a	IMPREGNATED WOOD	0.002908310	kg/TJ
2022	Pb	1A1a	INDUSTRIAL WASTE	0.017881237	kg/TJ
2022	Pb	1A1a	LIGNIN	0.003400000	kg/TJ
2022	Pb	1A1a	MILLED PEAT	0.006250309	kg/TJ
2022	Pb	1A1a	MUNICIPAL WASTE - unsorted	0.008694555	kg/TJ
2022	Pb	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.003389288	kg/TJ
2022	Pb	1A1a	OTHER FOSSIL SOLID	0.001875600	kg/TJ
2022	Pb	1A1a	OTHER FUEL	0.000838746	kg/TJ
2022	Pb	1A1a	OTHER NON-FOSSIL SOLID	0.003967241	kg/TJ
2022	Pb	1A1a	OTHER NON-FOSSIL SOLID	0.003400001	kg/TJ
2022	Pb	1A1a	OTHER NON-FOSSIL SOLID	0.003367932	kg/TJ

2022	Pb	1A1a	OTHER WASTE	0.001278826	kg/TJ
2022	Pb	1A1a	OTHER WOOD RESIDUE	0.001037834	kg/TJ
2022	Pb	1A1a	PAPER	0.001269601	kg/TJ
2022	Pb	1A1a	RECOVERED FUEL (REF 2)	0.045000000	kg/TJ
2022	Pb	1A1a	RECOVERED WOOD	0.002006747	kg/TJ
2022	Pb	1A1a	RECYCLED AND WASTE OILS	0.000709371	kg/TJ
2022	Pb	1A1a	SAWDUST	0.003896078	kg/TJ
2022	Pb	1A1a	SOD PEAT	0.168573822	kg/TJ
2022	Pb	1A1a	SOLID RECOVERED FUEL (SRF)	0.013954072	kg/TJ
2022	Pb	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.006109718	kg/TJ
2022	Pb	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.007012039	kg/TJ
2022	Pb	1A1a	WOOD RESIDUE CHIPS	0.016708277	kg/TJ
2022	Pb	1A1a	WOOD STUMP CHIPS	0.021271292	kg/TJ
2022	Pb	1A1b	COKE (S=1.0%)	0.789999975	kg/TJ
2022	Pb	1A1b	PETROLEUM COKE	0.790000000	kg/TJ
2022	Pb	1A1b	SULPHUR CONCENTRATE	0.001046153	kg/TJ
2022	Pb	1A2a	WOOD RESIDUE CHIPS	0.045000000	kg/TJ
2022	Pb	1A2b	HEAVY FUEL OIL (S<1%)	0.003580858	kg/TJ
2022	Pb	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.024999999	kg/TJ
2022	Pb	1A2c	HEAVY FUEL OIL (S<0,1%)	0.020454546	kg/TJ
2022	Pb	1A2c	HEAVY FUEL OIL (S<1%)	0.025000002	kg/TJ
2022	Pb	1A2c	OTHER FOSSIL LIQUID	0.024999985	kg/TJ
2022	Pb	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.045000001	kg/TJ
2022	Pb	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.001576162	kg/TJ
2022	Pb	1A2d	ANIMAL-BASED FUELS	0.000211789	kg/TJ
2022	Pb	1A2d	BARK	0.001454356	kg/TJ
2022	Pb	1A2d	BIOLOGICAL SLURRY	0.003503638	kg/TJ
2022	Pb	1A2d	BLACK LIQUOR	0.012867884	kg/TJ
2022	Pb	1A2d	CHIPS FROM ROUNDWOOD	0.001311163	kg/TJ
2022	Pb	1A2d	COAL (S=1.0%)	0.000223284	kg/TJ
2022	Pb	1A2d	CUTTER CHIPS ETC.	0.005571089	kg/TJ
2022	Pb	1A2d	DEMOLITION WOOD	0.000211789	kg/TJ
2022	Pb	1A2d	FOREST RESIDUE CHIPS	0.001434604	kg/TJ
2022	Pb	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.001161455	kg/TJ
2022	Pb	1A2d	HEAVY FUEL OIL (S<0,1%)	0.004463433	kg/TJ
2022	Pb	1A2d	HEAVY FUEL OIL (S<1%)	0.004428087	kg/TJ
2022	Pb	1A2d	IMPREGNATED WOOD	0.000211789	kg/TJ
2022	Pb	1A2d	INDUSTRIAL WASTE	0.007819419	kg/TJ
2022	Pb	1A2d	METHANOL	0.000102739	kg/TJ
2022	Pb	1A2d	MILLED PEAT	0.001215219	kg/TJ
2022	Pb	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.002533779	kg/TJ
2022	Pb	1A2d	OTHER FUEL	0.011174342	kg/TJ
2022	Pb	1A2d	OTHER WOOD RESIDUE	0.006000000	kg/TJ
2022	Pb	1A2d	PAPER	0.000713074	kg/TJ
2022	Pb	1A2d	PLASTIC WASTE	0.000194001	kg/TJ
2022	Pb	1A2d	RECOVERED WOOD	0.001240779	kg/TJ
2022	Pb	1A2d	RECYCLED AND WASTE OILS	0.000242935	kg/TJ
2022	Pb	1A2d	SAWDUST	0.002627194	kg/TJ
2022	Pb	1A2d	SOLID RECOVERED FUEL (SRF)	0.065336020	kg/TJ
2022	Pb	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.001980678	kg/TJ
2022	Pb	1A2d	WOOD RESIDUE CHIPS	0.001450821	kg/TJ
2022	Pb	1A2d	WOOD STUMP CHIPS	0.000211789	kg/TJ
2022	Pb	1A2e	ANIMAL FATS AND OILS	0.003400000	kg/TJ
2022	Pb	1A2e	ANIMAL-BASED FUELS	0.045000000	kg/TJ
2022	Pb	1A2e	BIO-FUEL OIL	0.025000000	kg/TJ
2022	Pb	1A2e	CHIPS FROM ROUNDWOOD	0.003400000	kg/TJ

2022	Pb	1A2e	COAL (S=1.0%)	0.003827325	kg/TJ
2022	Pb	1A2e	COKE (S=1.0%)	0.790000891	kg/TJ
2022	Pb	1A2e	FOREST RESIDUE CHIPS	0.044999961	kg/TJ
2022	Pb	1A2e	HEAVY FUEL OIL (S<0,1%)	0.024999947	kg/TJ
2022	Pb	1A2e	HEAVY FUEL OIL (S<1%)	0.025000003	kg/TJ
2022	Pb	1A2e	MILLED PEAT	0.110602022	kg/TJ
2022	Pb	1A2e	OTHER NON-FOSSIL SOLID	0.003400000	kg/TJ
2022	Pb	1A2e	PEAT PELLETS AND BRIQUETTES	0.001000000	kg/TJ
2022	Pb	1A2e	RECOVERED WOOD	0.003400001	kg/TJ
2022	Pb	1A2e	SOD PEAT	0.169999999	kg/TJ
2022	Pb	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.045000000	kg/TJ
2022	Pb	1A2e	WOOD STUMP CHIPS	0.045000001	kg/TJ
2022	Pb	1A2f	CHIPS FROM ROUNDWOOD	0.045000001	kg/TJ
2022	Pb	1A2f	COAL (S=1.0%)	0.389150531	kg/TJ
2022	Pb	1A2f	COKE (S=1.0%)	0.152208312	kg/TJ
2022	Pb	1A2f	CUTTER CHIPS ETC.	0.003400000	kg/TJ
2022	Pb	1A2f	FOREST RESIDUE CHIPS	0.045000001	kg/TJ
2022	Pb	1A2f	HEAVY FUEL OIL (S<0,1%)	0.025000000	kg/TJ
2022	Pb	1A2f	HEAVY FUEL OIL (S<1%)	0.029406429	kg/TJ
2022	Pb	1A2f	INDUSTRIAL WASTE	0.000135840	kg/TJ
2022	Pb	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.003400000	kg/TJ
2022	Pb	1A2f	OTHER FOSSIL LIQUID	0.000027915	kg/TJ
2022	Pb	1A2f	OTHER FUEL	0.003400000	kg/TJ
2022	Pb	1A2f	OTHER HEAVY DISTILLATES	0.025000001	kg/TJ
2022	Pb	1A2f	PETROLEUM COKE	0.000882099	kg/TJ
2022	Pb	1A2f	PLASTIC WASTE	0.000001346	kg/TJ
2022	Pb	1A2f	RECYCLED AND WASTE OILS	0.063792514	kg/TJ
2022	Pb	1A2f	RUBBER WASTE	0.000010263	kg/TJ
2022	Pb	1A2f	SAWDUST	0.074912896	kg/TJ
2022	Pb	1A2f	SOLID RECOVERED FUEL (SRF)	0.000077792	kg/TJ
2022	Pb	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.929947477	kg/TJ
2022	Pb	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.003400000	kg/TJ
2022	Pb	1A2gviii	BARK	0.015315912	kg/TJ
2022	Pb	1A2gviii	CHIPS FROM ROUNDWOOD	0.000972412	kg/TJ
2022	Pb	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.044999999	kg/TJ
2022	Pb	1A2gviii	CUTTER CHIPS ETC.	0.004858783	kg/TJ
2022	Pb	1A2gviii	DEMOLITION WOOD	0.000153908	kg/TJ
2022	Pb	1A2gviii	FOREST RESIDUE CHIPS	0.019292574	kg/TJ
2022	Pb	1A2gviii	FOREST RESIDUE CHIPS	0.045000000	kg/TJ
2022	Pb	1A2gviii	HAZARDOUS WASTE	0.000121386	kg/TJ
2022	Pb	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.025000000	kg/TJ
2022	Pb	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.025000000	kg/TJ
2022	Pb	1A2gviii	HEAVY FUEL OIL (S<1%)	0.023233650	kg/TJ
2022	Pb	1A2gviii	IMPREGNATED WOOD	0.000191620	kg/TJ
2022	Pb	1A2gviii	MILLED PEAT	0.000605938	kg/TJ
2022	Pb	1A2gviii	MUNICIPAL WASTE - unsorted	0.000717584	kg/TJ
2022	Pb	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.003400007	kg/TJ
2022	Pb	1A2gviii	OTHER HEAVY DISTILLATES	0.012697890	kg/TJ
2022	Pb	1A2gviii	OTHER NON-FOSSIL SOLID	0.003399998	kg/TJ
2022	Pb	1A2gviii	OTHER NON-FOSSIL SOLID	0.003400000	kg/TJ
2022	Pb	1A2gviii	OTHER WASTE	0.000230439	kg/TJ
2022	Pb	1A2gviii	OTHER WOOD RESIDUE	0.038696969	kg/TJ
2022	Pb	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.001000000	kg/TJ
2022	Pb	1A2gviii	PLASTIC WASTE	0.000254469	kg/TJ
2022	Pb	1A2gviii	RECOVERED WOOD	0.003818987	kg/TJ
2022	Pb	1A2gviii	RECYCLED AND WASTE OILS	0.000009787	kg/TJ

2022	Pb	1A2gviii	SAWDUST	0.001046375	kg/TJ
2022	Pb	1A2gviii	SAWDUST AND CUTTER CHIPS	0.045000000	kg/TJ
2022	Pb	1A2gviii	SOD PEAT	0.042757589	kg/TJ
2022	Pb	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.023414564	kg/TJ
2022	Pb	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.004554543	kg/TJ
2022	Pb	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.044068477	kg/TJ
2022	Pb	1A2gviii	WOOD RESIDUE CHIPS	0.025869305	kg/TJ
2022	Pb	1A2gviii	WOOD STUMP CHIPS	0.004769069	kg/TJ
2022	Pb	1A3aii(i)	AVIATION GASOLINE	13.443935927	kg/TJ
2022	Pb	1A3bi	DIESEL OIL (S=001%)	0.000014188	kg/TJ
2022	Pb	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000042739	kg/TJ
2022	Pb	1A3bii	DIESEL OIL (S=001%)	0.000014188	kg/TJ
2022	Pb	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000042633	kg/TJ
2022	Pb	1A3biii	DIESEL OIL (S=001%)	0.000014188	kg/TJ
2022	Pb	1A3biv	DIESEL OIL (S=001%)	0.000013743	kg/TJ
2022	Pb	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000042633	kg/TJ
2022	Pb	1A3dii	GASOIL (FOR NON-ROAD USE)	0.003054424	kg/TJ
2022	Pb	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.004432394	kg/TJ
2022	Pb	1A4ai	FOREST WOODFUEL	0.010000000	kg/TJ
2022	Pb	1A4ai	HEAVY FUEL OIL (S<1%)	0.025000000	kg/TJ
2022	Pb	1A4ai	SOD PEAT	0.170000000	kg/TJ
2022	Pb	1A4bi	FOREST WOODFUEL	0.010000000	kg/TJ
2022	Pb	1A4bi	HEAVY FUEL OIL (S<1%)	0.025000000	kg/TJ
2022	Pb	1A4bi	SOD PEAT	0.170000000	kg/TJ
2022	Pb	1A4ci	ANIMAL-BASED FUELS	0.044999999	kg/TJ
2022	Pb	1A4ci	CHIPS FROM ROUNDWOOD	0.003400000	kg/TJ
2022	Pb	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.044999998	kg/TJ
2022	Pb	1A4ci	COAL (S=1.0%)	0.003900000	kg/TJ
2022	Pb	1A4ci	FOREST WOODFUEL	0.010000000	kg/TJ
2022	Pb	1A4ci	HEAVY FUEL OIL (S<1%)	0.025000000	kg/TJ
2022	Pb	1A4ci	OTHER NON-FOSSIL SOLID	0.003400000	kg/TJ
2022	Pb	1A4ci	RECOVERED WOOD	0.003400000	kg/TJ
2022	Pb	1A4ci	SOD PEAT	0.170000000	kg/TJ
2022	Pb	1A4ci	WOOD RESIDUE CHIPS	0.044999999	kg/TJ
2022	Pb	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.003130065	kg/TJ
2022	Pb	1A5a	FOREST WOODFUEL	0.045000000	kg/TJ
2022	Pb	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000201900	kg/TJ
2022	Pb	1A5a	OTHER PETROLEUM PRODUCTS	0.025000000	kg/TJ

#### **Cd Implied emission factors in Finnish air pollutant inventory for 2022**

2022	Cd	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000159559	kg/TJ
2022	Cd	1A1a	ANIMAL-BASED FUELS	0.000009012	kg/TJ
2022	Cd	1A1a	ANTHRACITE	0.000072053	kg/TJ
2022	Cd	1A1a	ASPHALTENE	0.000185988	kg/TJ
2022	Cd	1A1a	BARK	0.000554546	kg/TJ
2022	Cd	1A1a	CHIPS FROM ROUNDWOOD	0.000390385	kg/TJ
2022	Cd	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000291174	kg/TJ
2022	Cd	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.001074098	kg/TJ
2022	Cd	1A1a	COAL (S=1.0%)	0.000054236	kg/TJ
2022	Cd	1A1a	CUTTER CHIPS ETC.	0.000610995	kg/TJ
2022	Cd	1A1a	DEINKING WASTE	0.002007286	kg/TJ
2022	Cd	1A1a	DEMOLITION WOOD	0.000039096	kg/TJ
2022	Cd	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.000500000	kg/TJ
2022	Cd	1A1a	FOREST RESIDUE CHIPS	0.002589532	kg/TJ
2022	Cd	1A1a	FOREST RESIDUE CHIPS	0.002656103	kg/TJ

2022	Cd	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.000092641	kg/TJ
2022	Cd	1A1a	HEAVY FUEL OIL (S<0,1%)	0.000275052	kg/TJ
2022	Cd	1A1a	HEAVY FUEL OIL (S<0,5%)	0.000211683	kg/TJ
2022	Cd	1A1a	HEAVY FUEL OIL (S<1%)	0.000160082	kg/TJ
2022	Cd	1A1a	IMPREGNATED WOOD	0.000343600	kg/TJ
2022	Cd	1A1a	INDUSTRIAL WASTE	0.002594643	kg/TJ
2022	Cd	1A1a	LIGNIN	0.000500000	kg/TJ
2022	Cd	1A1a	MILLED PEAT	0.000105277	kg/TJ
2022	Cd	1A1a	MUNICIPAL WASTE - unsorted	0.001028489	kg/TJ
2022	Cd	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000498436	kg/TJ
2022	Cd	1A1a	OTHER FOSSIL SOLID	0.000008424	kg/TJ
2022	Cd	1A1a	OTHER FUEL	0.000141430	kg/TJ
2022	Cd	1A1a	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2022	Cd	1A1a	OTHER NON-FOSSIL SOLID	0.000472166	kg/TJ
2022	Cd	1A1a	OTHER NON-FOSSIL SOLID	0.000496252	kg/TJ
2022	Cd	1A1a	OTHER WASTE	0.000036635	kg/TJ
2022	Cd	1A1a	OTHER WOOD RESIDUE	0.000216211	kg/TJ
2022	Cd	1A1a	PAPER	0.000055219	kg/TJ
2022	Cd	1A1a	RECOVERED FUEL (REF 2)	0.005000000	kg/TJ
2022	Cd	1A1a	RECOVERED WOOD	0.000237555	kg/TJ
2022	Cd	1A1a	RECYCLED AND WASTE OILS	0.000035650	kg/TJ
2022	Cd	1A1a	SAWDUST	0.000519843	kg/TJ
2022	Cd	1A1a	SOD PEAT	0.002776263	kg/TJ
2022	Cd	1A1a	SOLID RECOVERED FUEL (SRF)	0.001166296	kg/TJ
2022	Cd	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000960836	kg/TJ
2022	Cd	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000878189	kg/TJ
2022	Cd	1A1a	WOOD RESIDUE CHIPS	0.001908802	kg/TJ
2022	Cd	1A1a	WOOD STUMP CHIPS	0.002315207	kg/TJ
2022	Cd	1A1b	COKE (S=1.0%)	0.017999999	kg/TJ
2022	Cd	1A1b	PETROLEUM COKE	0.018000000	kg/TJ
2022	Cd	1A1b	SULPHUR CONCENTRATE	0.000225000	kg/TJ
2022	Cd	1A2a	WOOD RESIDUE CHIPS	0.005000000	kg/TJ
2022	Cd	1A2b	HEAVY FUEL OIL (S<1%)	0.000042970	kg/TJ
2022	Cd	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.000300000	kg/TJ
2022	Cd	1A2c	HEAVY FUEL OIL (S<0,1%)	0.000269697	kg/TJ
2022	Cd	1A2c	HEAVY FUEL OIL (S<1%)	0.000300000	kg/TJ
2022	Cd	1A2c	OTHER FOSSIL LIQUID	0.000300000	kg/TJ
2022	Cd	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.005000000	kg/TJ
2022	Cd	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000155196	kg/TJ
2022	Cd	1A2d	ANIMAL-BASED FUELS	0.000006303	kg/TJ
2022	Cd	1A2d	BARK	0.000194382	kg/TJ
2022	Cd	1A2d	BIOLOGICAL SLURRY	0.000222936	kg/TJ
2022	Cd	1A2d	BLACK LIQUOR	0.000833717	kg/TJ
2022	Cd	1A2d	CHIPS FROM ROUNDWOOD	0.000082646	kg/TJ
2022	Cd	1A2d	COAL (S=1.0%)	0.000004889	kg/TJ
2022	Cd	1A2d	CUTTER CHIPS ETC.	0.000142410	kg/TJ
2022	Cd	1A2d	DEMOLITION WOOD	0.000006303	kg/TJ
2022	Cd	1A2d	FOREST RESIDUE CHIPS	0.000138481	kg/TJ
2022	Cd	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.000052476	kg/TJ
2022	Cd	1A2d	HEAVY FUEL OIL (S<0,1%)	0.000274479	kg/TJ
2022	Cd	1A2d	HEAVY FUEL OIL (S<1%)	0.000104598	kg/TJ
2022	Cd	1A2d	IMPREGNATED WOOD	0.000006303	kg/TJ
2022	Cd	1A2d	INDUSTRIAL WASTE	0.000846897	kg/TJ
2022	Cd	1A2d	METHANOL	0.000012212	kg/TJ
2022	Cd	1A2d	MILLED PEAT	0.000013854	kg/TJ
2022	Cd	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000460583	kg/TJ

2022	Cd	1A2d	OTHER FUEL	0.027743498	kg/TJ
2022	Cd	1A2d	OTHER WOOD RESIDUE	0.000650000	kg/TJ
2022	Cd	1A2d	PAPER	0.000020853	kg/TJ
2022	Cd	1A2d	PLASTIC WASTE	0.000012495	kg/TJ
2022	Cd	1A2d	RECOVERED WOOD	0.000067271	kg/TJ
2022	Cd	1A2d	RECYCLED AND WASTE OILS	0.000002521	kg/TJ
2022	Cd	1A2d	SAWDUST	0.000304029	kg/TJ
2022	Cd	1A2d	SOLID RECOVERED FUEL (SRF)	0.001596435	kg/TJ
2022	Cd	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000243441	kg/TJ
2022	Cd	1A2d	WOOD RESIDUE CHIPS	0.000076544	kg/TJ
2022	Cd	1A2d	WOOD STUMP CHIPS	0.000006303	kg/TJ
2022	Cd	1A2e	ANIMAL FATS AND OILS	0.000500000	kg/TJ
2022	Cd	1A2e	ANIMAL-BASED FUELS	0.005000000	kg/TJ
2022	Cd	1A2e	BIO-FUEL OIL	0.000300000	kg/TJ
2022	Cd	1A2e	CHIPS FROM ROUNDWOOD	0.000500000	kg/TJ
2022	Cd	1A2e	COAL (S=1.0%)	0.000218704	kg/TJ
2022	Cd	1A2e	COKE (S=1.0%)	0.018000035	kg/TJ
2022	Cd	1A2e	FOREST RESIDUE CHIPS	0.005000000	kg/TJ
2022	Cd	1A2e	HEAVY FUEL OIL (S<0,1%)	0.000300005	kg/TJ
2022	Cd	1A2e	HEAVY FUEL OIL (S<1%)	0.000312879	kg/TJ
2022	Cd	1A2e	MILLED PEAT	0.001822920	kg/TJ
2022	Cd	1A2e	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2022	Cd	1A2e	PEAT PELLETS AND BRIQUETTES	0.000020000	kg/TJ
2022	Cd	1A2e	RECOVERED WOOD	0.000500000	kg/TJ
2022	Cd	1A2e	SOD PEAT	0.002800000	kg/TJ
2022	Cd	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.005000000	kg/TJ
2022	Cd	1A2e	WOOD STUMP CHIPS	0.005000000	kg/TJ
2022	Cd	1A2f	CHIPS FROM ROUNDWOOD	0.005000000	kg/TJ
2022	Cd	1A2f	COAL (S=1.0%)	0.009092850	kg/TJ
2022	Cd	1A2f	COKE (S=1.0%)	0.003529406	kg/TJ
2022	Cd	1A2f	CUTTER CHIPS ETC.	0.000500000	kg/TJ
2022	Cd	1A2f	FOREST RESIDUE CHIPS	0.005000000	kg/TJ
2022	Cd	1A2f	HEAVY FUEL OIL (S<0,1%)	0.000300000	kg/TJ
2022	Cd	1A2f	HEAVY FUEL OIL (S<1%)	0.000531131	kg/TJ
2022	Cd	1A2f	INDUSTRIAL WASTE	0.000036145	kg/TJ
2022	Cd	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000500000	kg/TJ
2022	Cd	1A2f	OTHER FOSSIL LIQUID	0.000001718	kg/TJ
2022	Cd	1A2f	OTHER FUEL	0.000500000	kg/TJ
2022	Cd	1A2f	OTHER HEAVY DISTILLATES	0.000300000	kg/TJ
2022	Cd	1A2f	PETROLEUM COKE	0.000103106	kg/TJ
2022	Cd	1A2f	PLASTIC WASTE	0.000001319	kg/TJ
2022	Cd	1A2f	RECYCLED AND WASTE OILS	0.002605167	kg/TJ
2022	Cd	1A2f	RUBBER WASTE	0.000003614	kg/TJ
2022	Cd	1A2f	SAWDUST	0.008739824	kg/TJ
2022	Cd	1A2f	SOLID RECOVERED FUEL (SRF)	0.000031056	kg/TJ
2022	Cd	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.082040277	kg/TJ
2022	Cd	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.000240858	kg/TJ
2022	Cd	1A2gvii	LIQUID GAS	0.000217391	kg/TJ
2022	Cd	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.000266454	kg/TJ
2022	Cd	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000500000	kg/TJ
2022	Cd	1A2gviii	BARK	0.001820080	kg/TJ
2022	Cd	1A2gviii	CHIPS FROM ROUNDWOOD	0.000156768	kg/TJ
2022	Cd	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.005000000	kg/TJ
2022	Cd	1A2gviii	CUTTER CHIPS ETC.	0.000767209	kg/TJ
2022	Cd	1A2gviii	DEMOLITION WOOD	0.000030130	kg/TJ
2022	Cd	1A2gviii	FOREST RESIDUE CHIPS	0.002214351	kg/TJ

2022	Cd	1A2gviii	FOREST RESIDUE CHIPS	0.005000000	kg/TJ
2022	Cd	1A2gviii	HAZARDOUS WASTE	0.000037976	kg/TJ
2022	Cd	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.000300000	kg/TJ
2022	Cd	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.000300000	kg/TJ
2022	Cd	1A2gviii	HEAVY FUEL OIL (S<1%)	0.000278944	kg/TJ
2022	Cd	1A2gviii	IMPREGNATED WOOD	0.000031267	kg/TJ
2022	Cd	1A2gviii	MILLED PEAT	0.000012277	kg/TJ
2022	Cd	1A2gviii	MUNICIPAL WASTE - unsorted	0.000222619	kg/TJ
2022	Cd	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000500000	kg/TJ
2022	Cd	1A2gviii	OTHER HEAVY DISTILLATES	0.000240955	kg/TJ
2022	Cd	1A2gviii	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2022	Cd	1A2gviii	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2022	Cd	1A2gviii	OTHER WASTE	0.000034505	kg/TJ
2022	Cd	1A2gviii	OTHER WOOD RESIDUE	0.004318182	kg/TJ
2022	Cd	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.000020000	kg/TJ
2022	Cd	1A2gviii	PLASTIC WASTE	0.000036510	kg/TJ
2022	Cd	1A2gviii	RECOVERED WOOD	0.000452343	kg/TJ
2022	Cd	1A2gviii	RECYCLED AND WASTE OILS	0.000054159	kg/TJ
2022	Cd	1A2gviii	SAWDUST	0.000162450	kg/TJ
2022	Cd	1A2gviii	SAWDUST AND CUTTER CHIPS	0.005000000	kg/TJ
2022	Cd	1A2gviii	SOD PEAT	0.000701592	kg/TJ
2022	Cd	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.002661009	kg/TJ
2022	Cd	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000722682	kg/TJ
2022	Cd	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.004899234	kg/TJ
2022	Cd	1A2gviii	WOOD RESIDUE CHIPS	0.002956021	kg/TJ
2022	Cd	1A2gviii	WOOD STUMP CHIPS	0.000640588	kg/TJ
2022	Cd	1A3bi	DIESEL OIL (S=001%)	0.000001419	kg/TJ
2022	Cd	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000005342	kg/TJ
2022	Cd	1A3bii	DIESEL OIL (S=001%)	0.000001419	kg/TJ
2022	Cd	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000005329	kg/TJ
2022	Cd	1A3biii	DIESEL OIL (S=001%)	0.000001419	kg/TJ
2022	Cd	1A3biv	DIESEL OIL (S=001%)	0.000001374	kg/TJ
2022	Cd	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000005329	kg/TJ
2022	Cd	1A3c	GASOIL (FOR NON-ROAD USE)	0.000240774	kg/TJ
2022	Cd	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000234956	kg/TJ
2022	Cd	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.000492488	kg/TJ
2022	Cd	1A4ai	FOREST WOODFUEL	0.003000000	kg/TJ
2022	Cd	1A4ai	HEAVY FUEL OIL (S<1%)	0.000300000	kg/TJ
2022	Cd	1A4ai	SOD PEAT	0.002800000	kg/TJ
2022	Cd	1A4aai	GASOIL (FOR NON-ROAD USE)	0.000240858	kg/TJ
2022	Cd	1A4aai	MOTOR GASOLINE (S=0.001%)	0.000266454	kg/TJ
2022	Cd	1A4bi	FOREST WOODFUEL	0.003000000	kg/TJ
2022	Cd	1A4bi	HEAVY FUEL OIL (S<1%)	0.000300000	kg/TJ
2022	Cd	1A4bi	SOD PEAT	0.002800000	kg/TJ
2022	Cd	1A4bii	GASOIL (FOR NON-ROAD USE)	0.000240858	kg/TJ
2022	Cd	1A4bii	MOTOR GASOLINE (S=0.001%)	0.000266454	kg/TJ
2022	Cd	1A4ci	ANIMAL-BASED FUELS	0.005000000	kg/TJ
2022	Cd	1A4ci	CHIPS FROM ROUNDWOOD	0.000500000	kg/TJ
2022	Cd	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.005000000	kg/TJ
2022	Cd	1A4ci	COAL (S=1.0%)	0.000200000	kg/TJ
2022	Cd	1A4ci	FOREST WOODFUEL	0.003000000	kg/TJ
2022	Cd	1A4ci	HEAVY FUEL OIL (S<1%)	0.000300000	kg/TJ
2022	Cd	1A4ci	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2022	Cd	1A4ci	RECOVERED WOOD	0.000500000	kg/TJ
2022	Cd	1A4ci	SOD PEAT	0.002800000	kg/TJ
2022	Cd	1A4ci	WOOD RESIDUE CHIPS	0.005000000	kg/TJ

2022	Cd	1A4cii	GASOIL (FOR NON-ROAD USE)	0.000240858	kg/TJ
2022	Cd	1A4cii	MOTOR GASOLINE (S=0.001%)	0.000266454	kg/TJ
2022	Cd	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000240774	kg/TJ
2022	Cd	1A5a	FOREST WOODFUEL	0.005000000	kg/TJ
2022	Cd	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000017588	kg/TJ
2022	Cd	1A5a	OTHER PETROLEUM PRODUCTS	0.000300000	kg/TJ

#### Hg Implied emission factors in Finnish air pollutant inventory for 2022

2022	Hg	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000260515	kg/TJ
2022	Hg	1A1a	ANIMAL-BASED FUELS	0.000105875	kg/TJ
2022	Hg	1A1a	ANTHRACITE	0.000360263	kg/TJ
2022	Hg	1A1a	ASPHALTENE	0.000019056	kg/TJ
2022	Hg	1A1a	BARK	0.000535805	kg/TJ
2022	Hg	1A1a	CHIPS FROM ROUNDWOOD	0.000530642	kg/TJ
2022	Hg	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000343530	kg/TJ
2022	Hg	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.000686336	kg/TJ
2022	Hg	1A1a	COAL (S=1.0%)	0.000697276	kg/TJ
2022	Hg	1A1a	CUTTER CHIPS ETC.	0.000457713	kg/TJ
2022	Hg	1A1a	DEINKING WASTE	0.000615459	kg/TJ
2022	Hg	1A1a	DEMOLITION WOOD	0.000556878	kg/TJ
2022	Hg	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.000500000	kg/TJ
2022	Hg	1A1a	FOREST RESIDUE CHIPS	0.000562754	kg/TJ
2022	Hg	1A1a	FOREST RESIDUE CHIPS	0.000636758	kg/TJ
2022	Hg	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.000016390	kg/TJ
2022	Hg	1A1a	HEAVY FUEL OIL (S<0,1%)	0.000028016	kg/TJ
2022	Hg	1A1a	HEAVY FUEL OIL (S<0,5%)	0.000029352	kg/TJ
2022	Hg	1A1a	HEAVY FUEL OIL (S<1%)	0.000026541	kg/TJ
2022	Hg	1A1a	IMPREGNATED WOOD	0.000722880	kg/TJ
2022	Hg	1A1a	INDUSTRIAL WASTE	0.000358680	kg/TJ
2022	Hg	1A1a	LIGNIN	0.000500000	kg/TJ
2022	Hg	1A1a	MILLED PEAT	0.001653250	kg/TJ
2022	Hg	1A1a	MUNICIPAL WASTE - unsorted	0.000329340	kg/TJ
2022	Hg	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000498861	kg/TJ
2022	Hg	1A1a	OTHER FOSSIL SOLID	0.001950446	kg/TJ
2022	Hg	1A1a	OTHER FUEL	0.000499932	kg/TJ
2022	Hg	1A1a	OTHER NON-FOSSIL SOLID	0.000432127	kg/TJ
2022	Hg	1A1a	OTHER NON-FOSSIL SOLID	0.000514880	kg/TJ
2022	Hg	1A1a	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2022	Hg	1A1a	OTHER WASTE	0.000684314	kg/TJ
2022	Hg	1A1a	OTHER WOOD RESIDUE	0.001537769	kg/TJ
2022	Hg	1A1a	PAPER	0.000507673	kg/TJ
2022	Hg	1A1a	RECOVERED FUEL (REF 2)	0.000500000	kg/TJ
2022	Hg	1A1a	RECOVERED WOOD	0.000347689	kg/TJ
2022	Hg	1A1a	RECYCLED AND WASTE OILS	0.000010212	kg/TJ
2022	Hg	1A1a	SAWDUST	0.000555672	kg/TJ
2022	Hg	1A1a	SOD PEAT	0.002634075	kg/TJ
2022	Hg	1A1a	SOLID RECOVERED FUEL (SRF)	0.000514398	kg/TJ
2022	Hg	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000710840	kg/TJ
2022	Hg	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000285851	kg/TJ
2022	Hg	1A1a	WOOD RESIDUE CHIPS	0.000480245	kg/TJ
2022	Hg	1A1a	WOOD STUMP CHIPS	0.000908768	kg/TJ
2022	Hg	1A1b	COKE (S=1.0%)	0.003700000	kg/TJ
2022	Hg	1A1b	PETROLEUM COKE	0.003700000	kg/TJ
2022	Hg	1A1b	SULPHUR CONCENTRATE	0.000339286	kg/TJ
2022	Hg	1A2a	COKE (S=1.0%)	0.000125079	kg/TJ

2022	Hg	1A2a	OTHER FOSSIL SOLID	0.001400000	kg/TJ
2022	Hg	1A2a	WOOD RESIDUE CHIPS	0.000500000	kg/TJ
2022	Hg	1A2b	HEAVY FUEL OIL (S<1%)	0.000013783	kg/TJ
2022	Hg	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.000030000	kg/TJ
2022	Hg	1A2c	HEAVY FUEL OIL (S<0,1%)	0.000030000	kg/TJ
2022	Hg	1A2c	HEAVY FUEL OIL (S<1%)	0.000030000	kg/TJ
2022	Hg	1A2c	OTHER FOSSIL LIQUID	0.000030000	kg/TJ
2022	Hg	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000500000	kg/TJ
2022	Hg	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000565765	kg/TJ
2022	Hg	1A2d	ANIMAL-BASED FUELS	0.000660581	kg/TJ
2022	Hg	1A2d	BARK	0.000482353	kg/TJ
2022	Hg	1A2d	BIOLOGICAL SLURRY	0.000372021	kg/TJ
2022	Hg	1A2d	BLACK LIQUOR	0.000478188	kg/TJ
2022	Hg	1A2d	CHIPS FROM ROUNDWOOD	0.000334998	kg/TJ
2022	Hg	1A2d	COAL (S=1.0%)	0.000210413	kg/TJ
2022	Hg	1A2d	CUTTER CHIPS ETC.	0.000432431	kg/TJ
2022	Hg	1A2d	DEMOLITION WOOD	0.000660581	kg/TJ
2022	Hg	1A2d	FOREST RESIDUE CHIPS	0.000217977	kg/TJ
2022	Hg	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.000028856	kg/TJ
2022	Hg	1A2d	HEAVY FUEL OIL (S<0,1%)	0.000030063	kg/TJ
2022	Hg	1A2d	HEAVY FUEL OIL (S<1%)	0.000135215	kg/TJ
2022	Hg	1A2d	IMPREGNATED WOOD	0.000660584	kg/TJ
2022	Hg	1A2d	INDUSTRIAL WASTE	0.000460566	kg/TJ
2022	Hg	1A2d	METHANOL	0.000050734	kg/TJ
2022	Hg	1A2d	MILLED PEAT	0.000798053	kg/TJ
2022	Hg	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000460583	kg/TJ
2022	Hg	1A2d	OTHER FUEL	0.000586820	kg/TJ
2022	Hg	1A2d	OTHER WOOD RESIDUE	0.000450000	kg/TJ
2022	Hg	1A2d	PAPER	0.000444090	kg/TJ
2022	Hg	1A2d	PLASTIC WASTE	0.000054055	kg/TJ
2022	Hg	1A2d	RECOVERED WOOD	0.000356967	kg/TJ
2022	Hg	1A2d	RECYCLED AND WASTE OILS	0.000039635	kg/TJ
2022	Hg	1A2d	SAWDUST	0.000479286	kg/TJ
2022	Hg	1A2d	SOLID RECOVERED FUEL (SRF)	0.000488597	kg/TJ
2022	Hg	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000695662	kg/TJ
2022	Hg	1A2d	WOOD RESIDUE CHIPS	0.000493567	kg/TJ
2022	Hg	1A2d	WOOD STUMP CHIPS	0.000660582	kg/TJ
2022	Hg	1A2e	ANIMAL FATS AND OILS	0.000500000	kg/TJ
2022	Hg	1A2e	ANIMAL-BASED FUELS	0.000500000	kg/TJ
2022	Hg	1A2e	BIO-FUEL OIL	0.000030000	kg/TJ
2022	Hg	1A2e	CHIPS FROM ROUNDWOOD	0.000500000	kg/TJ
2022	Hg	1A2e	COAL (S=1.0%)	0.001421578	kg/TJ
2022	Hg	1A2e	COKE (S=1.0%)	0.003700003	kg/TJ
2022	Hg	1A2e	FOREST RESIDUE CHIPS	0.000500000	kg/TJ
2022	Hg	1A2e	HEAVY FUEL OIL (S<0,1%)	0.000030003	kg/TJ
2022	Hg	1A2e	HEAVY FUEL OIL (S<1%)	0.000030038	kg/TJ
2022	Hg	1A2e	MILLED PEAT	0.002143091	kg/TJ
2022	Hg	1A2e	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2022	Hg	1A2e	PEAT PELLETS AND BRIQUETTES	0.001300000	kg/TJ
2022	Hg	1A2e	RECOVERED WOOD	0.000500000	kg/TJ
2022	Hg	1A2e	SOD PEAT	0.002600000	kg/TJ
2022	Hg	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000500000	kg/TJ
2022	Hg	1A2e	WOOD STUMP CHIPS	0.000500000	kg/TJ
2022	Hg	1A2f	CHIPS FROM ROUNDWOOD	0.000500000	kg/TJ
2022	Hg	1A2f	COAL (S=1.0%)	0.004649396	kg/TJ
2022	Hg	1A2f	COKE (S=1.0%)	0.011029064	kg/TJ

2022	Hg	1A2f	CUTTER CHIPS ETC.	0.000500000	kg/TJ
2022	Hg	1A2f	FOREST RESIDUE CHIPS	0.000500000	kg/TJ
2022	Hg	1A2f	HEAVY FUEL OIL (S<0,1%)	0.000030000	kg/TJ
2022	Hg	1A2f	HEAVY FUEL OIL (S<1%)	0.000032130	kg/TJ
2022	Hg	1A2f	INDUSTRIAL WASTE	0.001723074	kg/TJ
2022	Hg	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000500000	kg/TJ
2022	Hg	1A2f	OTHER FOSSIL LIQUID	0.000080523	kg/TJ
2022	Hg	1A2f	OTHER FUEL	0.000500000	kg/TJ
2022	Hg	1A2f	OTHER HEAVY DISTILLATES	0.000030000	kg/TJ
2022	Hg	1A2f	PETROLEUM COKE	0.009931209	kg/TJ
2022	Hg	1A2f	PLASTIC WASTE	0.000933743	kg/TJ
2022	Hg	1A2f	RECYCLED AND WASTE OILS	0.000053798	kg/TJ
2022	Hg	1A2f	RUBBER WASTE	0.001723072	kg/TJ
2022	Hg	1A2f	SAWDUST	0.000990869	kg/TJ
2022	Hg	1A2f	SOLID RECOVERED FUEL (SRF)	0.001464675	kg/TJ
2022	Hg	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000958950	kg/TJ
2022	Hg	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000402827	kg/TJ
2022	Hg	1A2gviii	BARK	0.000375474	kg/TJ
2022	Hg	1A2gviii	CHIPS FROM ROUNDWOOD	0.000159977	kg/TJ
2022	Hg	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.000500000	kg/TJ
2022	Hg	1A2gviii	CUTTER CHIPS ETC.	0.000457729	kg/TJ
2022	Hg	1A2gviii	DEMOLITION WOOD	0.000127875	kg/TJ
2022	Hg	1A2gviii	FOREST RESIDUE CHIPS	0.000500000	kg/TJ
2022	Hg	1A2gviii	FOREST RESIDUE CHIPS	0.000250857	kg/TJ
2022	Hg	1A2gviii	HAZARDOUS WASTE	0.007796218	kg/TJ
2022	Hg	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.000030000	kg/TJ
2022	Hg	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.000030000	kg/TJ
2022	Hg	1A2gviii	HEAVY FUEL OIL (S<1%)	0.000078643	kg/TJ
2022	Hg	1A2gviii	IMPREGNATED WOOD	0.000221094	kg/TJ
2022	Hg	1A2gviii	MILLED PEAT	0.000819556	kg/TJ
2022	Hg	1A2gviii	MUNICIPAL WASTE - unsorted	0.000341475	kg/TJ
2022	Hg	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000500000	kg/TJ
2022	Hg	1A2gviii	OTHER HEAVY DISTILLATES	0.000029926	kg/TJ
2022	Hg	1A2gviii	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2022	Hg	1A2gviii	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2022	Hg	1A2gviii	OTHER WASTE	0.000427963	kg/TJ
2022	Hg	1A2gviii	OTHER WOOD RESIDUE	0.000500000	kg/TJ
2022	Hg	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.001300000	kg/TJ
2022	Hg	1A2gviii	PLASTIC WASTE	0.000556018	kg/TJ
2022	Hg	1A2gviii	RECOVERED WOOD	0.000151131	kg/TJ
2022	Hg	1A2gviii	RECYCLED AND WASTE OILS	0.007070029	kg/TJ
2022	Hg	1A2gviii	SAWDUST	0.000184105	kg/TJ
2022	Hg	1A2gviii	SAWDUST AND CUTTER CHIPS	0.000500000	kg/TJ
2022	Hg	1A2gviii	SOD PEAT	0.001735177	kg/TJ
2022	Hg	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000290805	kg/TJ
2022	Hg	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000457912	kg/TJ
2022	Hg	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000500000	kg/TJ
2022	Hg	1A2gviii	WOOD RESIDUE CHIPS	0.000489847	kg/TJ
2022	Hg	1A2gviii	WOOD STUMP CHIPS	0.000110103	kg/TJ
2022	Hg	1A3bi	DIESEL OIL (S=001%)	0.000150393	kg/TJ
2022	Hg	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000232393	kg/TJ
2022	Hg	1A3bii	DIESEL OIL (S=001%)	0.000150393	kg/TJ
2022	Hg	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000231815	kg/TJ
2022	Hg	1A3biii	DIESEL OIL (S=001%)	0.000150393	kg/TJ
2022	Hg	1A3biv	DIESEL OIL (S=001%)	0.000145677	kg/TJ
2022	Hg	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000231815	kg/TJ

2022	Hg	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000704867	kg/TJ
2022	Hg	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.000492488	kg/TJ
2022	Hg	1A4ai	FOREST WOODFUEL	0.000500000	kg/TJ
2022	Hg	1A4ai	HEAVY FUEL OIL (S<1%)	0.000030000	kg/TJ
2022	Hg	1A4ai	SOD PEAT	0.002600000	kg/TJ
2022	Hg	1A4bi	FOREST WOODFUEL	0.000500000	kg/TJ
2022	Hg	1A4bi	HEAVY FUEL OIL (S<1%)	0.000030000	kg/TJ
2022	Hg	1A4bi	SOD PEAT	0.002600000	kg/TJ
2022	Hg	1A4ci	ANIMAL-BASED FUELS	0.000500000	kg/TJ
2022	Hg	1A4ci	CHIPS FROM ROUNDWOOD	0.000500000	kg/TJ
2022	Hg	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.000500000	kg/TJ
2022	Hg	1A4ci	COAL (S=1.0%)	0.001400000	kg/TJ
2022	Hg	1A4ci	FOREST WOODFUEL	0.000500000	kg/TJ
2022	Hg	1A4ci	HEAVY FUEL OIL (S<1%)	0.000030000	kg/TJ
2022	Hg	1A4ci	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2022	Hg	1A4ci	RECOVERED WOOD	0.000500000	kg/TJ
2022	Hg	1A4ci	SOD PEAT	0.002600000	kg/TJ
2022	Hg	1A4ci	WOOD RESIDUE CHIPS	0.000500000	kg/TJ
2022	Hg	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000722323	kg/TJ
2022	Hg	1A5a	FOREST WOODFUEL	0.000500000	kg/TJ
2022	Hg	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000046592	kg/TJ
2022	Hg	1A5a	OTHER PETROLEUM PRODUCTS	0.000030000	kg/TJ

#### As Implied emission factors in Finnish air pollutant inventory for 2022

2022	As	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000076384	kg/TJ
2022	As	1A1a	ANIMAL-BASED FUELS	0.000046135	kg/TJ
2022	As	1A1a	ANTHRACITE	0.000756553	kg/TJ
2022	As	1A1a	ASPHALTENE	0.001238885	kg/TJ
2022	As	1A1a	BARK	0.000158096	kg/TJ
2022	As	1A1a	CHIPS FROM ROUNDWOOD	0.000118364	kg/TJ
2022	As	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000137689	kg/TJ
2022	As	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.000511498	kg/TJ
2022	As	1A1a	COAL (S=1.0%)	0.000643534	kg/TJ
2022	As	1A1a	CUTTER CHIPS ETC.	0.000231555	kg/TJ
2022	As	1A1a	DEINKING WASTE	0.000451223	kg/TJ
2022	As	1A1a	DEMOLITION WOOD	0.000022228	kg/TJ
2022	As	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.000100000	kg/TJ
2022	As	1A1a	FOREST RESIDUE CHIPS	0.000485376	kg/TJ
2022	As	1A1a	FOREST RESIDUE CHIPS	0.000675323	kg/TJ
2022	As	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.000572474	kg/TJ
2022	As	1A1a	HEAVY FUEL OIL (S<0,1%)	0.000039364	kg/TJ
2022	As	1A1a	HEAVY FUEL OIL (S<0,5%)	0.000692104	kg/TJ
2022	As	1A1a	HEAVY FUEL OIL (S<1%)	0.000943509	kg/TJ
2022	As	1A1a	IMPREGNATED WOOD	0.000075016	kg/TJ
2022	As	1A1a	INDUSTRIAL WASTE	0.000286119	kg/TJ
2022	As	1A1a	LIGNIN	0.000100000	kg/TJ
2022	As	1A1a	MILLED PEAT	0.004079048	kg/TJ
2022	As	1A1a	MUNICIPAL WASTE - unsorted	0.000183651	kg/TJ
2022	As	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000099825	kg/TJ
2022	As	1A1a	OTHER FOSSIL SOLID	0.000812907	kg/TJ
2022	As	1A1a	OTHER FUEL	0.000057776	kg/TJ
2022	As	1A1a	OTHER NON-FOSSIL SOLID	0.000098812	kg/TJ
2022	As	1A1a	OTHER NON-FOSSIL SOLID	0.000100701	kg/TJ
2022	As	1A1a	OTHER NON-FOSSIL SOLID	0.000100000	kg/TJ
2022	As	1A1a	OTHER WASTE	0.000042918	kg/TJ

2022	As	1A1a	OTHER WOOD RESIDUE	0.000015962	kg/TJ
2022	As	1A1a	PAPER	0.000081203	kg/TJ
2022	As	1A1a	RECOVERED FUEL (REF 2)	0.001000000	kg/TJ
2022	As	1A1a	RECOVERED WOOD	0.000356098	kg/TJ
2022	As	1A1a	RECYCLED AND WASTE OILS	0.000549243	kg/TJ
2022	As	1A1a	SAWDUST	0.000231416	kg/TJ
2022	As	1A1a	SOD PEAT	0.080328513	kg/TJ
2022	As	1A1a	SOLID RECOVERED FUEL (SRF)	0.000500711	kg/TJ
2022	As	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000446017	kg/TJ
2022	As	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000516885	kg/TJ
2022	As	1A1a	WOOD RESIDUE CHIPS	0.000559209	kg/TJ
2022	As	1A1a	WOOD STUMP CHIPS	0.000501391	kg/TJ
2022	As	1A1b	COKE (S=1.0%)	0.129999996	kg/TJ
2022	As	1A1b	PETROLEUM COKE	0.130000000	kg/TJ
2022	As	1A1b	SULPHUR CONCENTRATE	0.000012821	kg/TJ
2022	As	1A2a	WOOD RESIDUE CHIPS	0.001000000	kg/TJ
2022	As	1A2b	HEAVY FUEL OIL (S<1%)	0.000286469	kg/TJ
2022	As	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.002000000	kg/TJ
2022	As	1A2c	HEAVY FUEL OIL (S<0,1%)	0.001696970	kg/TJ
2022	As	1A2c	HEAVY FUEL OIL (S<1%)	0.002000000	kg/TJ
2022	As	1A2c	OTHER FOSSIL LIQUID	0.002000002	kg/TJ
2022	As	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.001000000	kg/TJ
2022	As	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000113549	kg/TJ
2022	As	1A2d	ANIMAL-BASED FUELS	0.000019115	kg/TJ
2022	As	1A2d	BARK	0.000112959	kg/TJ
2022	As	1A2d	BIOLOGICAL SLURRY	0.000078194	kg/TJ
2022	As	1A2d	BLACK LIQUOR	0.000728198	kg/TJ
2022	As	1A2d	CHIPS FROM ROUNDWOOD	0.000110308	kg/TJ
2022	As	1A2d	COAL (S=1.0%)	0.001990445	kg/TJ
2022	As	1A2d	CUTTER CHIPS ETC.	0.000028850	kg/TJ
2022	As	1A2d	DEMOLITION WOOD	0.000019114	kg/TJ
2022	As	1A2d	FOREST RESIDUE CHIPS	0.000058077	kg/TJ
2022	As	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.000896545	kg/TJ
2022	As	1A2d	HEAVY FUEL OIL (S<0,1%)	0.000133723	kg/TJ
2022	As	1A2d	HEAVY FUEL OIL (S<1%)	0.000522598	kg/TJ
2022	As	1A2d	IMPREGNATED WOOD	0.000019114	kg/TJ
2022	As	1A2d	INDUSTRIAL WASTE	0.000215463	kg/TJ
2022	As	1A2d	METHANOL	0.000010077	kg/TJ
2022	As	1A2d	MILLED PEAT	0.000594576	kg/TJ
2022	As	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000092117	kg/TJ
2022	As	1A2d	OTHER FUEL	0.008473887	kg/TJ
2022	As	1A2d	OTHER WOOD RESIDUE	0.000130000	kg/TJ
2022	As	1A2d	PAPER	0.000176628	kg/TJ
2022	As	1A2d	PLASTIC WASTE	0.000025747	kg/TJ
2022	As	1A2d	RECOVERED WOOD	0.000065298	kg/TJ
2022	As	1A2d	RECYCLED AND WASTE OILS	0.000191139	kg/TJ
2022	As	1A2d	SAWDUST	0.000154342	kg/TJ
2022	As	1A2d	SOLID RECOVERED FUEL (SRF)	0.000459244	kg/TJ
2022	As	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000048292	kg/TJ
2022	As	1A2d	WOOD RESIDUE CHIPS	0.000009348	kg/TJ
2022	As	1A2d	WOOD STUMP CHIPS	0.000019115	kg/TJ
2022	As	1A2e	ANIMAL FATS AND OILS	0.000100000	kg/TJ
2022	As	1A2e	ANIMAL-BASED FUELS	0.001000000	kg/TJ
2022	As	1A2e	BIO-FUEL OIL	0.002000000	kg/TJ
2022	As	1A2e	CHIPS FROM ROUNDWOOD	0.000100000	kg/TJ
2022	As	1A2e	COAL (S=1.0%)	0.007818678	kg/TJ

2022	As	1A2e	COKE (S=1.0%)	0.130000091	kg/TJ
2022	As	1A2e	FOREST RESIDUE CHIPS	0.001000000	kg/TJ
2022	As	1A2e	HEAVY FUEL OIL (S<1%)	0.001708269	kg/TJ
2022	As	1A2e	MILLED PEAT	0.052706852	kg/TJ
2022	As	1A2e	OTHER NON-FOSSIL SOLID	0.000100000	kg/TJ
2022	As	1A2e	PEAT PELLETS AND BRIQUETTES	0.000500000	kg/TJ
2022	As	1A2e	RECOVERED WOOD	0.000100000	kg/TJ
2022	As	1A2e	SOD PEAT	0.080999999	kg/TJ
2022	As	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.001000000	kg/TJ
2022	As	1A2e	WOOD STUMP CHIPS	0.001000000	kg/TJ
2022	As	1A2f	CHIPS FROM ROUNDWOOD	0.001000000	kg/TJ
2022	As	1A2f	COAL (S=1.0%)	0.062230487	kg/TJ
2022	As	1A2f	COKE (S=1.0%)	0.025456763	kg/TJ
2022	As	1A2f	CUTTER CHIPS ETC.	0.000100000	kg/TJ
2022	As	1A2f	FOREST RESIDUE CHIPS	0.001000000	kg/TJ
2022	As	1A2f	HEAVY FUEL OIL (S<1%)	0.000866851	kg/TJ
2022	As	1A2f	INDUSTRIAL WASTE	0.000006911	kg/TJ
2022	As	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000100000	kg/TJ
2022	As	1A2f	OTHER FOSSIL LIQUID	0.000010229	kg/TJ
2022	As	1A2f	OTHER FUEL	0.000100000	kg/TJ
2022	As	1A2f	OTHER HEAVY DISTILLATES	0.002000000	kg/TJ
2022	As	1A2f	PETROLEUM COKE	0.000664863	kg/TJ
2022	As	1A2f	PLASTIC WASTE	0.000000068	kg/TJ
2022	As	1A2f	RECYCLED AND WASTE OILS	0.000300334	kg/TJ
2022	As	1A2f	RUBBER WASTE	0.000000691	kg/TJ
2022	As	1A2f	SAWDUST	0.000008527	kg/TJ
2022	As	1A2f	SOLID RECOVERED FUEL (SRF)	0.000005693	kg/TJ
2022	As	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000144751	kg/TJ
2022	As	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000100000	kg/TJ
2022	As	1A2gviii	BARK	0.000351580	kg/TJ
2022	As	1A2gviii	CHIPS FROM ROUNDWOOD	0.000063164	kg/TJ
2022	As	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.001000000	kg/TJ
2022	As	1A2gviii	CUTTER CHIPS ETC.	0.000131151	kg/TJ
2022	As	1A2gviii	DEMOLITION WOOD	0.000021715	kg/TJ
2022	As	1A2gviii	FOREST RESIDUE CHIPS	0.000422642	kg/TJ
2022	As	1A2gviii	FOREST RESIDUE CHIPS	0.001000000	kg/TJ
2022	As	1A2gviii	HAZARDOUS WASTE	0.000235975	kg/TJ
2022	As	1A2gviii	HEAVY FUEL OIL (S<1%)	0.001904907	kg/TJ
2022	As	1A2gviii	IMPREGNATED WOOD	0.000047898	kg/TJ
2022	As	1A2gviii	MILLED PEAT	0.000697697	kg/TJ
2022	As	1A2gviii	MUNICIPAL WASTE - unsorted	0.000187657	kg/TJ
2022	As	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000100000	kg/TJ
2022	As	1A2gviii	OTHER HEAVY DISTILLATES	0.001411293	kg/TJ
2022	As	1A2gviii	OTHER NON-FOSSIL SOLID	0.000100000	kg/TJ
2022	As	1A2gviii	OTHER NON-FOSSIL SOLID	0.000100000	kg/TJ
2022	As	1A2gviii	OTHER WASTE	0.000087080	kg/TJ
2022	As	1A2gviii	OTHER WOOD RESIDUE	0.000863636	kg/TJ
2022	As	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.000500000	kg/TJ
2022	As	1A2gviii	PLASTIC WASTE	0.000111334	kg/TJ
2022	As	1A2gviii	RECOVERED WOOD	0.000087721	kg/TJ
2022	As	1A2gviii	RECYCLED AND WASTE OILS	0.000506021	kg/TJ
2022	As	1A2gviii	SAWDUST	0.000030039	kg/TJ
2022	As	1A2gviii	SAWDUST AND CUTTER CHIPS	0.001000000	kg/TJ
2022	As	1A2gviii	SOD PEAT	0.020467361	kg/TJ
2022	As	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000515217	kg/TJ
2022	As	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000121874	kg/TJ

2022	As	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000979847	kg/TJ
2022	As	1A2gviii	WOOD RESIDUE CHIPS	0.000583800	kg/TJ
2022	As	1A2gviii	WOOD STUMP CHIPS	0.000096461	kg/TJ
2022	As	1A3bi	DIESEL OIL (S=001%)	0.000002838	kg/TJ
2022	As	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000008014	kg/TJ
2022	As	1A3bii	DIESEL OIL (S=001%)	0.000002838	kg/TJ
2022	As	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000007994	kg/TJ
2022	As	1A3biii	DIESEL OIL (S=001%)	0.000002838	kg/TJ
2022	As	1A3biv	DIESEL OIL (S=001%)	0.000002749	kg/TJ
2022	As	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000007994	kg/TJ
2022	As	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000939823	kg/TJ
2022	As	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.001231221	kg/TJ
2022	As	1A4ai	FOREST WOODFUEL	0.001000000	kg/TJ
2022	As	1A4ai	HEAVY FUEL OIL (S<1%)	0.002000000	kg/TJ
2022	As	1A4ai	SOD PEAT	0.081000000	kg/TJ
2022	As	1A4bi	FOREST WOODFUEL	0.001000000	kg/TJ
2022	As	1A4bi	HEAVY FUEL OIL (S<1%)	0.002000000	kg/TJ
2022	As	1A4bi	SOD PEAT	0.081000000	kg/TJ
2022	As	1A4ci	ANIMAL-BASED FUELS	0.001000000	kg/TJ
2022	As	1A4ci	CHIPS FROM ROUNDWOOD	0.000100000	kg/TJ
2022	As	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.001000000	kg/TJ
2022	As	1A4ci	COAL (S=1.0%)	0.007800000	kg/TJ
2022	As	1A4ci	FOREST WOODFUEL	0.001000000	kg/TJ
2022	As	1A4ci	HEAVY FUEL OIL (S<1%)	0.002000000	kg/TJ
2022	As	1A4ci	OTHER NON-FOSSIL SOLID	0.000100000	kg/TJ
2022	As	1A4ci	RECOVERED WOOD	0.000100000	kg/TJ
2022	As	1A4ci	SOD PEAT	0.081000000	kg/TJ
2022	As	1A4ci	WOOD RESIDUE CHIPS	0.001000000	kg/TJ
2022	As	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000963097	kg/TJ
2022	As	1A5a	FOREST WOODFUEL	0.001000000	kg/TJ
2022	As	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000062123	kg/TJ
2022	As	1A5a	OTHER PETROLEUM PRODUCTS	0.002000000	kg/TJ

#### Cr Implied emission factors in Finnish air pollutant inventory for 2022

2022	Cr	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000714941	kg/TJ
2022	Cr	1A1a	ANIMAL-BASED FUELS	0.000165840	kg/TJ
2022	Cr	1A1a	ANTHRACITE	0.001116817	kg/TJ
2022	Cr	1A1a	ASPHALTENE	0.000623784	kg/TJ
2022	Cr	1A1a	BARK	0.003014436	kg/TJ
2022	Cr	1A1a	CHIPS FROM ROUNDWOOD	0.001854300	kg/TJ
2022	Cr	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000972568	kg/TJ
2022	Cr	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.003472880	kg/TJ
2022	Cr	1A1a	COAL (S=1.0%)	0.001858556	kg/TJ
2022	Cr	1A1a	CUTTER CHIPS ETC.	0.002532504	kg/TJ
2022	Cr	1A1a	DEINKING WASTE	0.013949730	kg/TJ
2022	Cr	1A1a	DEMOLITION WOOD	0.000284113	kg/TJ
2022	Cr	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.002000000	kg/TJ
2022	Cr	1A1a	FOREST RESIDUE CHIPS	0.014272893	kg/TJ
2022	Cr	1A1a	FOREST RESIDUE CHIPS	0.017627663	kg/TJ
2022	Cr	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.000493407	kg/TJ
2022	Cr	1A1a	HEAVY FUEL OIL (S<0,1%)	0.000907974	kg/TJ
2022	Cr	1A1a	HEAVY FUEL OIL (S<0,5%)	0.000606708	kg/TJ
2022	Cr	1A1a	HEAVY FUEL OIL (S<1%)	0.000510088	kg/TJ
2022	Cr	1A1a	IMPREGNATED WOOD	0.001390351	kg/TJ
2022	Cr	1A1a	INDUSTRIAL WASTE	0.012264640	kg/TJ

2022	Cr	1A1a	LIGNIN	0.002000000	kg/TJ
2022	Cr	1A1a	MILLED PEAT	0.005057767	kg/TJ
2022	Cr	1A1a	MUNICIPAL WASTE - unsorted	0.006559729	kg/TJ
2022	Cr	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.001993815	kg/TJ
2022	Cr	1A1a	OTHER FOSSIL SOLID	0.000547163	kg/TJ
2022	Cr	1A1a	OTHER FUEL	0.002000000	kg/TJ
2022	Cr	1A1a	OTHER NON-FOSSIL SOLID	0.002914438	kg/TJ
2022	Cr	1A1a	OTHER NON-FOSSIL SOLID	0.001980927	kg/TJ
2022	Cr	1A1a	OTHER NON-FOSSIL SOLID	0.001999998	kg/TJ
2022	Cr	1A1a	OTHER WASTE	0.000114898	kg/TJ
2022	Cr	1A1a	OTHER WOOD RESIDUE	0.000601071	kg/TJ
2022	Cr	1A1a	PAPER	0.000304006	kg/TJ
2022	Cr	1A1a	RECOVERED FUEL (REF 2)	0.035000000	kg/TJ
2022	Cr	1A1a	RECOVERED WOOD	0.001064670	kg/TJ
2022	Cr	1A1a	RECYCLED AND WASTE OILS	0.000116280	kg/TJ
2022	Cr	1A1a	SAWDUST	0.002670354	kg/TJ
2022	Cr	1A1a	SOD PEAT	0.138824733	kg/TJ
2022	Cr	1A1a	SOLID RECOVERED FUEL (SRF)	0.008343002	kg/TJ
2022	Cr	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.001695074	kg/TJ
2022	Cr	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.004968378	kg/TJ
2022	Cr	1A1a	WOOD RESIDUE CHIPS	0.012757557	kg/TJ
2022	Cr	1A1a	WOOD STUMP CHIPS	0.015763522	kg/TJ
2022	Cr	1A1b	COKE (S=1.0%)	0.999999968	kg/TJ
2022	Cr	1A1b	PETROLEUM COKE	1.000000000	kg/TJ
2022	Cr	1A1b	SULPHUR CONCENTRATE	0.000599999	kg/TJ
2022	Cr	1A2a	WOOD RESIDUE CHIPS	0.035000000	kg/TJ
2022	Cr	1A2b	COAL (S=1.0%)	0.999999972	kg/TJ
2022	Cr	1A2b	COKE (S=1.0%)	1.000000130	kg/TJ
2022	Cr	1A2b	HEAVY FUEL OIL (S<1%)	0.001000002	kg/TJ
2022	Cr	1A2b	OTHER HEAVY DISTILLATES	0.001000000	kg/TJ
2022	Cr	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.001000000	kg/TJ
2022	Cr	1A2c	HEAVY FUEL OIL (S<0,1%)	0.000848485	kg/TJ
2022	Cr	1A2c	HEAVY FUEL OIL (S<1%)	0.001000000	kg/TJ
2022	Cr	1A2c	OTHER FOSSIL LIQUID	0.000999998	kg/TJ
2022	Cr	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.035000001	kg/TJ
2022	Cr	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.001144524	kg/TJ
2022	Cr	1A2d	ANIMAL-BASED FUELS	0.000048857	kg/TJ
2022	Cr	1A2d	BARK	0.001356591	kg/TJ
2022	Cr	1A2d	BIOLOGICAL SLURRY	0.000389518	kg/TJ
2022	Cr	1A2d	BLACK LIQUOR	0.000644916	kg/TJ
2022	Cr	1A2d	CHIPS FROM ROUNDWOOD	0.003422860	kg/TJ
2022	Cr	1A2d	COAL (S=1.0%)	0.000620939	kg/TJ
2022	Cr	1A2d	CUTTER CHIPS ETC.	0.000099029	kg/TJ
2022	Cr	1A2d	DEMOLITION WOOD	0.000048857	kg/TJ
2022	Cr	1A2d	FOREST RESIDUE CHIPS	0.001585423	kg/TJ
2022	Cr	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.000495391	kg/TJ
2022	Cr	1A2d	HEAVY FUEL OIL (S<0,1%)	0.001086028	kg/TJ
2022	Cr	1A2d	HEAVY FUEL OIL (S<1%)	0.001502572	kg/TJ
2022	Cr	1A2d	IMPREGNATED WOOD	0.000048857	kg/TJ
2022	Cr	1A2d	INDUSTRIAL WASTE	0.006138427	kg/TJ
2022	Cr	1A2d	METHANOL	0.000203550	kg/TJ
2022	Cr	1A2d	MILLED PEAT	0.000617485	kg/TJ
2022	Cr	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.001612996	kg/TJ
2022	Cr	1A2d	OTHER FUEL	0.030042723	kg/TJ
2022	Cr	1A2d	OTHER WOOD RESIDUE	0.004500000	kg/TJ
2022	Cr	1A2d	PAPER	0.008007611	kg/TJ

2022	Cr	1A2d	PLASTIC WASTE	0.000255528	kg/TJ
2022	Cr	1A2d	RECOVERED WOOD	0.002934775	kg/TJ
2022	Cr	1A2d	RECYCLED AND WASTE OILS	0.000012214	kg/TJ
2022	Cr	1A2d	SAWDUST	0.003863684	kg/TJ
2022	Cr	1A2d	SOLID RECOVERED FUEL (SRF)	0.004558822	kg/TJ
2022	Cr	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.001023275	kg/TJ
2022	Cr	1A2d	WOOD RESIDUE CHIPS	0.000109166	kg/TJ
2022	Cr	1A2d	WOOD STUMP CHIPS	0.000048857	kg/TJ
2022	Cr	1A2e	ANIMAL FATS AND OILS	0.002000000	kg/TJ
2022	Cr	1A2e	ANIMAL-BASED FUELS	0.035000000	kg/TJ
2022	Cr	1A2e	BIO-FUEL OIL	0.001000000	kg/TJ
2022	Cr	1A2e	CHIPS FROM ROUNDWOOD	0.002000000	kg/TJ
2022	Cr	1A2e	COAL (S=1.0%)	0.004975522	kg/TJ
2022	Cr	1A2e	COKE (S=1.0%)	0.999997861	kg/TJ
2022	Cr	1A2e	FOREST RESIDUE CHIPS	0.035000074	kg/TJ
2022	Cr	1A2e	HEAVY FUEL OIL (S<0,1%)	0.001000000	kg/TJ
2022	Cr	1A2e	HEAVY FUEL OIL (S<1%)	0.001001876	kg/TJ
2022	Cr	1A2e	MILLED PEAT	0.091075707	kg/TJ
2022	Cr	1A2e	OTHER NON-FOSSIL SOLID	0.002000000	kg/TJ
2022	Cr	1A2e	PEAT PELLETS AND BRIQUETTES	0.000800000	kg/TJ
2022	Cr	1A2e	RECOVERED WOOD	0.002000001	kg/TJ
2022	Cr	1A2e	SOD PEAT	0.139999999	kg/TJ
2022	Cr	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.035000000	kg/TJ
2022	Cr	1A2e	WOOD STUMP CHIPS	0.035000001	kg/TJ
2022	Cr	1A2f	CHIPS FROM ROUNDWOOD	0.035000001	kg/TJ
2022	Cr	1A2f	COAL (S=1.0%)	0.478914900	kg/TJ
2022	Cr	1A2f	COKE (S=1.0%)	0.201610461	kg/TJ
2022	Cr	1A2f	CUTTER CHIPS ETC.	0.002000000	kg/TJ
2022	Cr	1A2f	FOREST RESIDUE CHIPS	0.035000001	kg/TJ
2022	Cr	1A2f	HEAVY FUEL OIL (S<0,1%)	0.001000000	kg/TJ
2022	Cr	1A2f	HEAVY FUEL OIL (S<1%)	0.001004740	kg/TJ
2022	Cr	1A2f	INDUSTRIAL WASTE	0.000492115	kg/TJ
2022	Cr	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.002000000	kg/TJ
2022	Cr	1A2f	OTHER FOSSIL LIQUID	0.000001424	kg/TJ
2022	Cr	1A2f	OTHER FUEL	0.002000000	kg/TJ
2022	Cr	1A2f	OTHER HEAVY DISTILLATES	0.001000000	kg/TJ
2022	Cr	1A2f	PETROLEUM COKE	0.001424128	kg/TJ
2022	Cr	1A2f	PLASTIC WASTE	0.000001531	kg/TJ
2022	Cr	1A2f	RECYCLED AND WASTE OILS	0.000898621	kg/TJ
2022	Cr	1A2f	RUBBER WASTE	0.000028121	kg/TJ
2022	Cr	1A2f	SAWDUST	0.004262155	kg/TJ
2022	Cr	1A2f	SOLID RECOVERED FUEL (SRF)	0.000192176	kg/TJ
2022	Cr	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.072013501	kg/TJ
2022	Cr	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.001204290	kg/TJ
2022	Cr	1A2gvii	LIQUID GAS	0.001086957	kg/TJ
2022	Cr	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.001332270	kg/TJ
2022	Cr	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.002000000	kg/TJ
2022	Cr	1A2gviii	BARK	0.016045708	kg/TJ
2022	Cr	1A2gviii	CHIPS FROM ROUNDWOOD	0.012681833	kg/TJ
2022	Cr	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.034999999	kg/TJ
2022	Cr	1A2gviii	CUTTER CHIPS ETC.	0.004611380	kg/TJ
2022	Cr	1A2gviii	DEMOLITION WOOD	0.007127382	kg/TJ
2022	Cr	1A2gviii	FOREST RESIDUE CHIPS	0.035000000	kg/TJ
2022	Cr	1A2gviii	FOREST RESIDUE CHIPS	0.169041821	kg/TJ
2022	Cr	1A2gviii	HAZARDOUS WASTE	0.000676760	kg/TJ
2022	Cr	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.001000000	kg/TJ

2022	Cr	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.001000000	kg/TJ
2022	Cr	1A2gviii	HEAVY FUEL OIL (S<1%)	0.000930846	kg/TJ
2022	Cr	1A2gviii	IMPREGNATED WOOD	0.000471333	kg/TJ
2022	Cr	1A2gviii	MILLED PEAT	0.002981467	kg/TJ
2022	Cr	1A2gviii	MUNICIPAL WASTE - unsorted	0.000869102	kg/TJ
2022	Cr	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.002000000	kg/TJ
2022	Cr	1A2gviii	OTHER HEAVY DISTILLATES	0.000706301	kg/TJ
2022	Cr	1A2gviii	OTHER NON-FOSSIL SOLID	0.002000000	kg/TJ
2022	Cr	1A2gviii	OTHER NON-FOSSIL SOLID	0.002000004	kg/TJ
2022	Cr	1A2gviii	OTHER WASTE	0.000458391	kg/TJ
2022	Cr	1A2gviii	OTHER WOOD RESIDUE	0.030000000	kg/TJ
2022	Cr	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.000800000	kg/TJ
2022	Cr	1A2gviii	PLASTIC WASTE	0.000450378	kg/TJ
2022	Cr	1A2gviii	RECOVERED WOOD	0.014828679	kg/TJ
2022	Cr	1A2gviii	RECYCLED AND WASTE OILS	0.000233594	kg/TJ
2022	Cr	1A2gviii	SAWDUST	0.011281431	kg/TJ
2022	Cr	1A2gviii	SAWDUST AND CUTTER CHIPS	0.035000000	kg/TJ
2022	Cr	1A2gviii	SOD PEAT	0.035192706	kg/TJ
2022	Cr	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.147549165	kg/TJ
2022	Cr	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.003621952	kg/TJ
2022	Cr	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.034261051	kg/TJ
2022	Cr	1A2gviii	WOOD RESIDUE CHIPS	0.022369068	kg/TJ
2022	Cr	1A2gviii	WOOD STUMP CHIPS	0.244769273	kg/TJ
2022	Cr	1A3bi	DIESEL OIL (S=001%)	0.000241196	kg/TJ
2022	Cr	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000168284	kg/TJ
2022	Cr	1A3bii	DIESEL OIL (S=001%)	0.000241196	kg/TJ
2022	Cr	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000167866	kg/TJ
2022	Cr	1A3biii	DIESEL OIL (S=001%)	0.000241196	kg/TJ
2022	Cr	1A3biv	DIESEL OIL (S=001%)	0.000233633	kg/TJ
2022	Cr	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000167866	kg/TJ
2022	Cr	1A3c	GASOIL (FOR NON-ROAD USE)	0.001203871	kg/TJ
2022	Cr	1A3dii	GASOIL (FOR NON-ROAD USE)	0.001174779	kg/TJ
2022	Cr	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.017729577	kg/TJ
2022	Cr	1A4ai	FOREST WOODFUEL	0.035000000	kg/TJ
2022	Cr	1A4ai	HEAVY FUEL OIL (S<1%)	0.001000000	kg/TJ
2022	Cr	1A4ai	SOD PEAT	0.140000000	kg/TJ
2022	Cr	1A4aai	GASOIL (FOR NON-ROAD USE)	0.001204290	kg/TJ
2022	Cr	1A4aai	MOTOR GASOLINE (S=0.001%)	0.001332270	kg/TJ
2022	Cr	1A4bi	FOREST WOODFUEL	0.035000000	kg/TJ
2022	Cr	1A4bi	HEAVY FUEL OIL (S<1%)	0.001000000	kg/TJ
2022	Cr	1A4bi	SOD PEAT	0.140000000	kg/TJ
2022	Cr	1A4bii	GASOIL (FOR NON-ROAD USE)	0.001204290	kg/TJ
2022	Cr	1A4bii	MOTOR GASOLINE (S=0.001%)	0.001332270	kg/TJ
2022	Cr	1A4ci	ANIMAL-BASED FUELS	0.034999999	kg/TJ
2022	Cr	1A4ci	CHIPS FROM ROUNDWOOD	0.002000000	kg/TJ
2022	Cr	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.034999999	kg/TJ
2022	Cr	1A4ci	COAL (S=1.0%)	0.005000000	kg/TJ
2022	Cr	1A4ci	FOREST WOODFUEL	0.035000000	kg/TJ
2022	Cr	1A4ci	HEAVY FUEL OIL (S<1%)	0.001000000	kg/TJ
2022	Cr	1A4ci	OTHER NON-FOSSIL SOLID	0.002000000	kg/TJ
2022	Cr	1A4ci	RECOVERED WOOD	0.002000000	kg/TJ
2022	Cr	1A4ci	SOD PEAT	0.140000000	kg/TJ
2022	Cr	1A4ci	WOOD RESIDUE CHIPS	0.034999999	kg/TJ
2022	Cr	1A4cii	GASOIL (FOR NON-ROAD USE)	0.001204290	kg/TJ
2022	Cr	1A4cii	MOTOR GASOLINE (S=0.001%)	0.001332270	kg/TJ
2022	Cr	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.001203871	kg/TJ

2022	Cr	1A5a	FOREST WOODFUEL	0.035000000	kg/TJ
2022	Cr	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000087938	kg/TJ
2022	Cr	1A5a	OTHER PETROLEUM PRODUCTS	0.001000000	kg/TJ

#### **Cu Implied emission factors in Finnish air pollutant inventory for 2022**

2022	Cu	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.001622780	kg/TJ
2022	Cu	1A1a	ANIMAL-BASED FUELS	0.000281509	kg/TJ
2022	Cu	1A1a	ANTHRACITE	0.001369001	kg/TJ
2022	Cu	1A1a	ASPHALTENE	0.001548174	kg/TJ
2022	Cu	1A1a	BARK	0.005843816	kg/TJ
2022	Cu	1A1a	CHIPS FROM ROUNDWOOD	0.004594255	kg/TJ
2022	Cu	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.002027513	kg/TJ
2022	Cu	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.008655140	kg/TJ
2022	Cu	1A1a	COAL (S=1.0%)	0.001322166	kg/TJ
2022	Cu	1A1a	CUTTER CHIPS ETC.	0.004971975	kg/TJ
2022	Cu	1A1a	DEINKING WASTE	0.020160053	kg/TJ
2022	Cu	1A1a	DEMOLITION WOOD	0.002082202	kg/TJ
2022	Cu	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.005000000	kg/TJ
2022	Cu	1A1a	FOREST RESIDUE CHIPS	0.022351549	kg/TJ
2022	Cu	1A1a	FOREST RESIDUE CHIPS	0.028052501	kg/TJ
2022	Cu	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.000868785	kg/TJ
2022	Cu	1A1a	HEAVY FUEL OIL (S<0,1%)	0.002291493	kg/TJ
2022	Cu	1A1a	HEAVY FUEL OIL (S<0,5%)	0.002220491	kg/TJ
2022	Cu	1A1a	HEAVY FUEL OIL (S<1%)	0.001253941	kg/TJ
2022	Cu	1A1a	IMPREGNATED WOOD	0.004782000	kg/TJ
2022	Cu	1A1a	INDUSTRIAL WASTE	0.026510508	kg/TJ
2022	Cu	1A1a	LIGNIN	0.005000000	kg/TJ
2022	Cu	1A1a	MILLED PEAT	0.008039516	kg/TJ
2022	Cu	1A1a	MUNICIPAL WASTE - unsorted	0.010770191	kg/TJ
2022	Cu	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.004984692	kg/TJ
2022	Cu	1A1a	OTHER FOSSIL SOLID	0.001963903	kg/TJ
2022	Cu	1A1a	OTHER FUEL	0.005000000	kg/TJ
2022	Cu	1A1a	OTHER NON-FOSSIL SOLID	0.004999999	kg/TJ
2022	Cu	1A1a	OTHER NON-FOSSIL SOLID	0.004975007	kg/TJ
2022	Cu	1A1a	OTHER NON-FOSSIL SOLID	0.004914967	kg/TJ
2022	Cu	1A1a	OTHER WASTE	0.002622366	kg/TJ
2022	Cu	1A1a	OTHER WOOD RESIDUE	0.003077391	kg/TJ
2022	Cu	1A1a	PAPER	0.000266698	kg/TJ
2022	Cu	1A1a	RECOVERED FUEL (REF 2)	0.051000000	kg/TJ
2022	Cu	1A1a	RECOVERED WOOD	0.002105329	kg/TJ
2022	Cu	1A1a	RECYCLED AND WASTE OILS	0.000210290	kg/TJ
2022	Cu	1A1a	SAWDUST	0.005170155	kg/TJ
2022	Cu	1A1a	SOD PEAT	0.218546133	kg/TJ
2022	Cu	1A1a	SOLID RECOVERED FUEL (SRF)	0.018979991	kg/TJ
2022	Cu	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.006556826	kg/TJ
2022	Cu	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.012445755	kg/TJ
2022	Cu	1A1a	WOOD RESIDUE CHIPS	0.021550471	kg/TJ
2022	Cu	1A1a	WOOD STUMP CHIPS	0.028683542	kg/TJ
2022	Cu	1A1b	COKE (S=1.0%)	0.349999989	kg/TJ
2022	Cu	1A1b	PETROLEUM COKE	0.350000000	kg/TJ
2022	Cu	1A1b	SULPHUR CONCENTRATE	0.002250002	kg/TJ
2022	Cu	1A2a	WOOD RESIDUE CHIPS	0.051000000	kg/TJ
2022	Cu	1A2b	HEAVY FUEL OIL (S<1%)	0.001148588	kg/TJ
2022	Cu	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.002500000	kg/TJ
2022	Cu	1A2c	HEAVY FUEL OIL (S<0,1%)	0.002045455	kg/TJ

2022	Cu	1A2c	HEAVY FUEL OIL (S<1%)	0.002500000	kg/TJ
2022	Cu	1A2c	OTHER FOSSIL LIQUID	0.002499999	kg/TJ
2022	Cu	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.051000002	kg/TJ
2022	Cu	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.002140398	kg/TJ
2022	Cu	1A2d	ANIMAL-BASED FUELS	0.000383807	kg/TJ
2022	Cu	1A2d	BARK	0.002840673	kg/TJ
2022	Cu	1A2d	BIOLOGICAL SLURRY	0.007698720	kg/TJ
2022	Cu	1A2d	CHIPS FROM ROUNDWOOD	0.004601472	kg/TJ
2022	Cu	1A2d	COAL (S=1.0%)	0.000570859	kg/TJ
2022	Cu	1A2d	CUTTER CHIPS ETC.	0.012905673	kg/TJ
2022	Cu	1A2d	DEMOLITION WOOD	0.000383807	kg/TJ
2022	Cu	1A2d	FOREST RESIDUE CHIPS	0.001577048	kg/TJ
2022	Cu	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.011971316	kg/TJ
2022	Cu	1A2d	HEAVY FUEL OIL (S<0,1%)	0.001619244	kg/TJ
2022	Cu	1A2d	HEAVY FUEL OIL (S<1%)	0.020541854	kg/TJ
2022	Cu	1A2d	IMPREGNATED WOOD	0.000383807	kg/TJ
2022	Cu	1A2d	INDUSTRIAL WASTE	0.010235526	kg/TJ
2022	Cu	1A2d	METHANOL	0.004998564	kg/TJ
2022	Cu	1A2d	MILLED PEAT	0.001313240	kg/TJ
2022	Cu	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.003831820	kg/TJ
2022	Cu	1A2d	OTHER FUEL	0.068996407	kg/TJ
2022	Cu	1A2d	OTHER WOOD RESIDUE	0.012750000	kg/TJ
2022	Cu	1A2d	PAPER	0.000510449	kg/TJ
2022	Cu	1A2d	PLASTIC WASTE	0.000725392	kg/TJ
2022	Cu	1A2d	RECOVERED WOOD	0.003113038	kg/TJ
2022	Cu	1A2d	RECYCLED AND WASTE OILS	0.000076761	kg/TJ
2022	Cu	1A2d	SAWDUST	0.053245648	kg/TJ
2022	Cu	1A2d	SOLID RECOVERED FUEL (SRF)	0.113535476	kg/TJ
2022	Cu	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.004003539	kg/TJ
2022	Cu	1A2d	WOOD RESIDUE CHIPS	0.001314438	kg/TJ
2022	Cu	1A2d	WOOD STUMP CHIPS	0.000383807	kg/TJ
2022	Cu	1A2e	ANIMAL FATS AND OILS	0.005000000	kg/TJ
2022	Cu	1A2e	ANIMAL-BASED FUELS	0.051000000	kg/TJ
2022	Cu	1A2e	BIO-FUEL OIL	0.002500000	kg/TJ
2022	Cu	1A2e	CHIPS FROM ROUNDWOOD	0.005000000	kg/TJ
2022	Cu	1A2e	COAL (S=1.0%)	0.003827325	kg/TJ
2022	Cu	1A2e	COKE (S=1.0%)	0.350000357	kg/TJ
2022	Cu	1A2e	FOREST RESIDUE CHIPS	0.050999969	kg/TJ
2022	Cu	1A2e	HEAVY FUEL OIL (S<0,1%)	0.002500005	kg/TJ
2022	Cu	1A2e	HEAVY FUEL OIL (S<1%)	0.002500000	kg/TJ
2022	Cu	1A2e	MILLED PEAT	0.143134071	kg/TJ
2022	Cu	1A2e	OTHER NON-FOSSIL SOLID	0.005000000	kg/TJ
2022	Cu	1A2e	PEAT PELLETS AND BRIQUETTES	0.001300000	kg/TJ
2022	Cu	1A2e	RECOVERED WOOD	0.004999998	kg/TJ
2022	Cu	1A2e	SOD PEAT	0.219999998	kg/TJ
2022	Cu	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.051000000	kg/TJ
2022	Cu	1A2e	WOOD STUMP CHIPS	0.050999973	kg/TJ
2022	Cu	1A2f	CHIPS FROM ROUNDWOOD	0.051000001	kg/TJ
2022	Cu	1A2f	COAL (S=1.0%)	0.167701111	kg/TJ
2022	Cu	1A2f	COKE (S=1.0%)	0.071244403	kg/TJ
2022	Cu	1A2f	CUTTER CHIPS ETC.	0.005000000	kg/TJ
2022	Cu	1A2f	FOREST RESIDUE CHIPS	0.051000001	kg/TJ
2022	Cu	1A2f	HEAVY FUEL OIL (S<0,1%)	0.002500000	kg/TJ
2022	Cu	1A2f	HEAVY FUEL OIL (S<1%)	0.002361989	kg/TJ
2022	Cu	1A2f	INDUSTRIAL WASTE	0.000839607	kg/TJ
2022	Cu	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.005000000	kg/TJ

2022	Cu	1A2f	OTHER FOSSIL LIQUID	0.000018223	kg/TJ
2022	Cu	1A2f	OTHER FUEL	0.005000000	kg/TJ
2022	Cu	1A2f	OTHER HEAVY DISTILLATES	0.002500000	kg/TJ
2022	Cu	1A2f	PETROLEUM COKE	0.002551155	kg/TJ
2022	Cu	1A2f	PLASTIC WASTE	0.000018241	kg/TJ
2022	Cu	1A2f	RECYCLED AND WASTE OILS	0.000671099	kg/TJ
2022	Cu	1A2f	RUBBER WASTE	0.000082315	kg/TJ
2022	Cu	1A2f	SAWDUST	0.002958311	kg/TJ
2022	Cu	1A2f	SOLID RECOVERED FUEL (SRF)	0.000522310	kg/TJ
2022	Cu	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.031528959	kg/TJ
2022	Cu	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.040945869	kg/TJ
2022	Cu	1A2gvii	LIQUID GAS	0.036956522	kg/TJ
2022	Cu	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.045297194	kg/TJ
2022	Cu	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.005000000	kg/TJ
2022	Cu	1A2gviii	BARK	0.017608446	kg/TJ
2022	Cu	1A2gviii	CHIPS FROM ROUNDWOOD	0.001292511	kg/TJ
2022	Cu	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.050999999	kg/TJ
2022	Cu	1A2gviii	CUTTER CHIPS ETC.	0.006124728	kg/TJ
2022	Cu	1A2gviii	DEMOLITION WOOD	0.000212779	kg/TJ
2022	Cu	1A2gviii	FOREST RESIDUE CHIPS	0.021568085	kg/TJ
2022	Cu	1A2gviii	FOREST RESIDUE CHIPS	0.051000000	kg/TJ
2022	Cu	1A2gviii	HAZARDOUS WASTE	0.001374713	kg/TJ
2022	Cu	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.002500000	kg/TJ
2022	Cu	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.002500000	kg/TJ
2022	Cu	1A2gviii	HEAVY FUEL OIL (S<1%)	0.002323573	kg/TJ
2022	Cu	1A2gviii	IMPREGNATED WOOD	0.001272268	kg/TJ
2022	Cu	1A2gviii	MILLED PEAT	0.000782452	kg/TJ
2022	Cu	1A2gviii	MUNICIPAL WASTE - unsorted	0.003965420	kg/TJ
2022	Cu	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.005000000	kg/TJ
2022	Cu	1A2gviii	OTHER HEAVY DISTILLATES	0.001622714	kg/TJ
2022	Cu	1A2gviii	OTHER NON-FOSSIL SOLID	0.004999997	kg/TJ
2022	Cu	1A2gviii	OTHER NON-FOSSIL SOLID	0.005000000	kg/TJ
2022	Cu	1A2gviii	OTHER WASTE	0.005210274	kg/TJ
2022	Cu	1A2gviii	OTHER WOOD RESIDUE	0.044030346	kg/TJ
2022	Cu	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.001300000	kg/TJ
2022	Cu	1A2gviii	PLASTIC WASTE	0.007647935	kg/TJ
2022	Cu	1A2gviii	RECOVERED WOOD	0.004461318	kg/TJ
2022	Cu	1A2gviii	RECYCLED AND WASTE OILS	0.000034175	kg/TJ
2022	Cu	1A2gviii	SAWDUST	0.001503525	kg/TJ
2022	Cu	1A2gviii	SAWDUST AND CUTTER CHIPS	0.051000001	kg/TJ
2022	Cu	1A2gviii	SOD PEAT	0.055611657	kg/TJ
2022	Cu	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.026287269	kg/TJ
2022	Cu	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.005884497	kg/TJ
2022	Cu	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.049969959	kg/TJ
2022	Cu	1A2gviii	WOOD RESIDUE CHIPS	0.029767215	kg/TJ
2022	Cu	1A2gviii	WOOD STUMP CHIPS	0.004940417	kg/TJ
2022	Cu	1A3bi	DIESEL OIL (S=001%)	0.000161744	kg/TJ
2022	Cu	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000120203	kg/TJ
2022	Cu	1A3bii	DIESEL OIL (S=001%)	0.000161744	kg/TJ
2022	Cu	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000119904	kg/TJ
2022	Cu	1A3biii	DIESEL OIL (S=001%)	0.000161744	kg/TJ
2022	Cu	1A3biv	DIESEL OIL (S=001%)	0.000156672	kg/TJ
2022	Cu	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000119904	kg/TJ
2022	Cu	1A3c	GASOIL (FOR NON-ROAD USE)	0.040931617	kg/TJ
2022	Cu	1A3dii	GASOIL (FOR NON-ROAD USE)	0.004699114	kg/TJ
2022	Cu	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.004924883	kg/TJ

2022	Cu	1A4ai	FOREST WOODFUEL	0.006000000	kg/TJ
2022	Cu	1A4ai	HEAVY FUEL OIL (S<1%)	0.002500000	kg/TJ
2022	Cu	1A4ai	SOD PEAT	0.220000000	kg/TJ
2022	Cu	1A4aii	GASOIL (FOR NON-ROAD USE)	0.040945869	kg/TJ
2022	Cu	1A4aii	MOTOR GASOLINE (S=0.001%)	0.045297194	kg/TJ
2022	Cu	1A4bi	FOREST WOODFUEL	0.006000000	kg/TJ
2022	Cu	1A4bi	HEAVY FUEL OIL (S<1%)	0.002500000	kg/TJ
2022	Cu	1A4bi	SOD PEAT	0.220000000	kg/TJ
2022	Cu	1A4bii	GASOIL (FOR NON-ROAD USE)	0.040945869	kg/TJ
2022	Cu	1A4bii	MOTOR GASOLINE (S=0.001%)	0.045297194	kg/TJ
2022	Cu	1A4ci	ANIMAL-BASED FUELS	0.050999999	kg/TJ
2022	Cu	1A4ci	CHIPS FROM ROUNDWOOD	0.005000000	kg/TJ
2022	Cu	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.050999998	kg/TJ
2022	Cu	1A4ci	COAL (S=1.0%)	0.004000000	kg/TJ
2022	Cu	1A4ci	FOREST WOODFUEL	0.006000000	kg/TJ
2022	Cu	1A4ci	HEAVY FUEL OIL (S<1%)	0.002500000	kg/TJ
2022	Cu	1A4ci	OTHER NON-FOSSIL SOLID	0.005000000	kg/TJ
2022	Cu	1A4ci	RECOVERED WOOD	0.005000000	kg/TJ
2022	Cu	1A4ci	SOD PEAT	0.220000000	kg/TJ
2022	Cu	1A4ci	WOOD RESIDUE CHIPS	0.050999998	kg/TJ
2022	Cu	1A4cii	GASOIL (FOR NON-ROAD USE)	0.040945869	kg/TJ
2022	Cu	1A4cii	MOTOR GASOLINE (S=0.001%)	0.045297194	kg/TJ
2022	Cu	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.004815484	kg/TJ
2022	Cu	1A5a	FOREST WOODFUEL	0.051000000	kg/TJ
2022	Cu	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000660271	kg/TJ
2022	Cu	1A5a	OTHER PETROLEUM PRODUCTS	0.002500000	kg/TJ

#### Ni Implied emission factors in Finnish air pollutant inventory for 2022

2022	Ni	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.001773451	kg/TJ
2022	Ni	1A1a	ANIMAL-BASED FUELS	0.002000000	kg/TJ
2022	Ni	1A1a	ANTHRACITE	0.000756553	kg/TJ
2022	Ni	1A1a	ASPHALTENE	0.185718197	kg/TJ
2022	Ni	1A1a	BARK	0.002798111	kg/TJ
2022	Ni	1A1a	CHIPS FROM ROUNDWOOD	0.001853631	kg/TJ
2022	Ni	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000505489	kg/TJ
2022	Ni	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.002815408	kg/TJ
2022	Ni	1A1a	COAL (S=1.0%)	0.003315646	kg/TJ
2022	Ni	1A1a	CUTTER CHIPS ETC.	0.002684237	kg/TJ
2022	Ni	1A1a	DEINKING WASTE	0.011999819	kg/TJ
2022	Ni	1A1a	DEMOLITION WOOD	0.000681994	kg/TJ
2022	Ni	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.002000000	kg/TJ
2022	Ni	1A1a	FOREST RESIDUE CHIPS	0.014993498	kg/TJ
2022	Ni	1A1a	FOREST RESIDUE CHIPS	0.013665453	kg/TJ
2022	Ni	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.088165737	kg/TJ
2022	Ni	1A1a	HEAVY FUEL OIL (S<0,1%)	0.274697959	kg/TJ
2022	Ni	1A1a	HEAVY FUEL OIL (S<0,5%)	0.178809545	kg/TJ
2022	Ni	1A1a	HEAVY FUEL OIL (S<1%)	0.130983700	kg/TJ
2022	Ni	1A1a	IMPREGNATED WOOD	0.001559553	kg/TJ
2022	Ni	1A1a	INDUSTRIAL WASTE	0.010335036	kg/TJ
2022	Ni	1A1a	LIGNIN	0.002000000	kg/TJ
2022	Ni	1A1a	MILLED PEAT	0.005066302	kg/TJ
2022	Ni	1A1a	MUNICIPAL WASTE - unsorted	0.005602275	kg/TJ
2022	Ni	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.001993737	kg/TJ
2022	Ni	1A1a	OTHER FOSSIL SOLID	0.000411813	kg/TJ
2022	Ni	1A1a	OTHER FUEL	0.002000000	kg/TJ

2022	Ni	1A1a	OTHER NON-FOSSIL SOLID	0.001999998	kg/TJ
2022	Ni	1A1a	OTHER NON-FOSSIL SOLID	0.002325689	kg/TJ
2022	Ni	1A1a	OTHER NON-FOSSIL SOLID	0.001976244	kg/TJ
2022	Ni	1A1a	OTHER WASTE	0.001221090	kg/TJ
2022	Ni	1A1a	OTHER WOOD RESIDUE	0.000272586	kg/TJ
2022	Ni	1A1a	PAPER	0.000888906	kg/TJ
2022	Ni	1A1a	RECOVERED FUEL (REF 2)	0.030000000	kg/TJ
2022	Ni	1A1a	RECOVERED WOOD	0.009962226	kg/TJ
2022	Ni	1A1a	RECYCLED AND WASTE OILS	0.003999999	kg/TJ
2022	Ni	1A1a	SAWDUST	0.002686224	kg/TJ
2022	Ni	1A1a	SOD PEAT	0.138609856	kg/TJ
2022	Ni	1A1a	SOLID RECOVERED FUEL (SRF)	0.016479083	kg/TJ
2022	Ni	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.001843971	kg/TJ
2022	Ni	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.007175422	kg/TJ
2022	Ni	1A1a	WOOD RESIDUE CHIPS	0.011106042	kg/TJ
2022	Ni	1A1a	WOOD STUMP CHIPS	0.010704943	kg/TJ
2022	Ni	1A1b	COKE (S=1.0%)	0.799999975	kg/TJ
2022	Ni	1A1b	PETROLEUM COKE	0.000987342	kg/TJ
2022	Ni	1A1b	SULPHUR CONCENTRATE	0.007452509	kg/TJ
2022	Ni	1A2a	WOOD RESIDUE CHIPS	0.030000000	kg/TJ
2022	Ni	1A2b	COAL (S=1.0%)	0.799999393	kg/TJ
2022	Ni	1A2b	HEAVY FUEL OIL (S<1%)	0.137830592	kg/TJ
2022	Ni	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.299999993	kg/TJ
2022	Ni	1A2c	HEAVY FUEL OIL (S<0,1%)	0.254545464	kg/TJ
2022	Ni	1A2c	HEAVY FUEL OIL (S<1%)	0.299999967	kg/TJ
2022	Ni	1A2c	OTHER FOSSIL LIQUID	0.300000031	kg/TJ
2022	Ni	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.030000001	kg/TJ
2022	Ni	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.001542948	kg/TJ
2022	Ni	1A2d	ANIMAL-BASED FUELS	0.000500000	kg/TJ
2022	Ni	1A2d	BARK	0.004195750	kg/TJ
2022	Ni	1A2d	BIOLOGICAL SLURRY	0.020721715	kg/TJ
2022	Ni	1A2d	BLACK LIQUOR	0.000337647	kg/TJ
2022	Ni	1A2d	CHIPS FROM ROUNDWOOD	0.023181231	kg/TJ
2022	Ni	1A2d	COAL (S=1.0%)	0.000387781	kg/TJ
2022	Ni	1A2d	CUTTER CHIPS ETC.	0.000137920	kg/TJ
2022	Ni	1A2d	DEMOLITION WOOD	0.000500000	kg/TJ
2022	Ni	1A2d	FOREST RESIDUE CHIPS	0.003269313	kg/TJ
2022	Ni	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.003336167	kg/TJ
2022	Ni	1A2d	HEAVY FUEL OIL (S<0,1%)	0.056717445	kg/TJ
2022	Ni	1A2d	HEAVY FUEL OIL (S<1%)	0.044730892	kg/TJ
2022	Ni	1A2d	IMPREGNATED WOOD	0.000500000	kg/TJ
2022	Ni	1A2d	INDUSTRIAL WASTE	0.004907550	kg/TJ
2022	Ni	1A2d	METHANOL	0.000184284	kg/TJ
2022	Ni	1A2d	MILLED PEAT	0.007577781	kg/TJ
2022	Ni	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.001546106	kg/TJ
2022	Ni	1A2d	OTHER FUEL	0.023206274	kg/TJ
2022	Ni	1A2d	OTHER WOOD RESIDUE	0.003900000	kg/TJ
2022	Ni	1A2d	PAPER	0.005265625	kg/TJ
2022	Ni	1A2d	PLASTIC WASTE	0.000182843	kg/TJ
2022	Ni	1A2d	RECOVERED WOOD	0.001950849	kg/TJ
2022	Ni	1A2d	RECYCLED AND WASTE OILS	0.001000000	kg/TJ
2022	Ni	1A2d	SAWDUST	0.002134414	kg/TJ
2022	Ni	1A2d	SOLID RECOVERED FUEL (SRF)	0.006967757	kg/TJ
2022	Ni	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.002472226	kg/TJ
2022	Ni	1A2d	WOOD RESIDUE CHIPS	0.000726755	kg/TJ
2022	Ni	1A2d	WOOD STUMP CHIPS	0.000500000	kg/TJ

2022	Ni	1A2e	ANIMAL FATS AND OILS	0.002000000	kg/TJ
2022	Ni	1A2e	ANIMAL-BASED FUELS	0.030000000	kg/TJ
2022	Ni	1A2e	BIO-FUEL OIL	0.299999999	kg/TJ
2022	Ni	1A2e	CHIPS FROM ROUNDWOOD	0.002000000	kg/TJ
2022	Ni	1A2e	COAL (S=1.0%)	0.003827325	kg/TJ
2022	Ni	1A2e	COKE (S=1.0%)	0.799998289	kg/TJ
2022	Ni	1A2e	FOREST RESIDUE CHIPS	0.030000036	kg/TJ
2022	Ni	1A2e	HEAVY FUEL OIL (S<0,1%)	0.299999997	kg/TJ
2022	Ni	1A2e	HEAVY FUEL OIL (S<1%)	0.299999998	kg/TJ
2022	Ni	1A2e	MILLED PEAT	0.091075707	kg/TJ
2022	Ni	1A2e	OTHER NON-FOSSIL SOLID	0.002000000	kg/TJ
2022	Ni	1A2e	PEAT PELLETS AND BRIQUETTES	0.000800000	kg/TJ
2022	Ni	1A2e	RECOVERED WOOD	0.002000001	kg/TJ
2022	Ni	1A2e	SOD PEAT	0.139999999	kg/TJ
2022	Ni	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.030000000	kg/TJ
2022	Ni	1A2e	WOOD STUMP CHIPS	0.030000001	kg/TJ
2022	Ni	1A2f	CHIPS FROM ROUNDWOOD	0.030000000	kg/TJ
2022	Ni	1A2f	COAL (S=1.0%)	0.382662550	kg/TJ
2022	Ni	1A2f	COKE (S=1.0%)	0.157189730	kg/TJ
2022	Ni	1A2f	CUTTER CHIPS ETC.	0.002000000	kg/TJ
2022	Ni	1A2f	FOREST RESIDUE CHIPS	0.030000001	kg/TJ
2022	Ni	1A2f	HEAVY FUEL OIL (S<0,1%)	0.300000000	kg/TJ
2022	Ni	1A2f	HEAVY FUEL OIL (S<1%)	0.278691643	kg/TJ
2022	Ni	1A2f	INDUSTRIAL WASTE	0.000232043	kg/TJ
2022	Ni	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.002000000	kg/TJ
2022	Ni	1A2f	OTHER FOSSIL LIQUID	0.000367342	kg/TJ
2022	Ni	1A2f	OTHER FUEL	0.002000000	kg/TJ
2022	Ni	1A2f	OTHER HEAVY DISTILLATES	0.300000016	kg/TJ
2022	Ni	1A2f	PETROLEUM COKE	0.000979578	kg/TJ
2022	Ni	1A2f	PLASTIC WASTE	0.000000903	kg/TJ
2022	Ni	1A2f	RECYCLED AND WASTE OILS	0.004874013	kg/TJ
2022	Ni	1A2f	RUBBER WASTE	0.000015470	kg/TJ
2022	Ni	1A2f	SAWDUST	0.002680543	kg/TJ
2022	Ni	1A2f	SOLID RECOVERED FUEL (SRF)	0.000099589	kg/TJ
2022	Ni	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.039544310	kg/TJ
2022	Ni	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.001686006	kg/TJ
2022	Ni	1A2gvii	LIQUID GAS	0.001521739	kg/TJ
2022	Ni	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.001865179	kg/TJ
2022	Ni	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.002000000	kg/TJ
2022	Ni	1A2gviii	BARK	0.010180312	kg/TJ
2022	Ni	1A2gviii	CHIPS FROM ROUNDWOOD	0.000664377	kg/TJ
2022	Ni	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.029999999	kg/TJ
2022	Ni	1A2gviii	CUTTER CHIPS ETC.	0.003158618	kg/TJ
2022	Ni	1A2gviii	DEMOLITION WOOD	0.000245507	kg/TJ
2022	Ni	1A2gviii	FOREST RESIDUE CHIPS	0.030000000	kg/TJ
2022	Ni	1A2gviii	FOREST RESIDUE CHIPS	0.012763451	kg/TJ
2022	Ni	1A2gviii	HAZARDOUS WASTE	0.000722460	kg/TJ
2022	Ni	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.300000006	kg/TJ
2022	Ni	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.299999753	kg/TJ
2022	Ni	1A2gviii	HEAVY FUEL OIL (S<1%)	0.278991689	kg/TJ
2022	Ni	1A2gviii	IMPREGNATED WOOD	0.000718800	kg/TJ
2022	Ni	1A2gviii	MILLED PEAT	0.000483484	kg/TJ
2022	Ni	1A2gviii	MUNICIPAL WASTE - unsorted	0.001398764	kg/TJ
2022	Ni	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.002000000	kg/TJ
2022	Ni	1A2gviii	OTHER HEAVY DISTILLATES	0.127686401	kg/TJ
2022	Ni	1A2gviii	OTHER NON-FOSSIL SOLID	0.002000004	kg/TJ

2022	Ni	1A2gviii	OTHER NON-FOSSIL SOLID	0.002000000	kg/TJ
2022	Ni	1A2gviii	OTHER WASTE	0.001975423	kg/TJ
2022	Ni	1A2gviii	OTHER WOOD RESIDUE	0.025757576	kg/TJ
2022	Ni	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.000800000	kg/TJ
2022	Ni	1A2gviii	PLASTIC WASTE	0.002753283	kg/TJ
2022	Ni	1A2gviii	RECOVERED WOOD	0.002496934	kg/TJ
2022	Ni	1A2gviii	RECYCLED AND WASTE OILS	0.000180723	kg/TJ
2022	Ni	1A2gviii	SAWDUST	0.000607577	kg/TJ
2022	Ni	1A2gviii	SAWDUST AND CUTTER CHIPS	0.030000000	kg/TJ
2022	Ni	1A2gviii	SOD PEAT	0.035735748	kg/TJ
2022	Ni	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.015527200	kg/TJ
2022	Ni	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.002929491	kg/TJ
2022	Ni	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.029373013	kg/TJ
2022	Ni	1A2gviii	WOOD RESIDUE CHIPS	0.017149557	kg/TJ
2022	Ni	1A2gviii	WOOD STUMP CHIPS	0.003025600	kg/TJ
2022	Ni	1A3bi	DIESEL OIL (S=001%)	0.000005675	kg/TJ
2022	Ni	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000061437	kg/TJ
2022	Ni	1A3bii	DIESEL OIL (S=001%)	0.000005675	kg/TJ
2022	Ni	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000061284	kg/TJ
2022	Ni	1A3biii	DIESEL OIL (S=001%)	0.000005675	kg/TJ
2022	Ni	1A3biv	DIESEL OIL (S=001%)	0.000005497	kg/TJ
2022	Ni	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000061284	kg/TJ
2022	Ni	1A3c	GASOIL (FOR NON-ROAD USE)	0.001685420	kg/TJ
2022	Ni	1A3dii	GASOIL (FOR NON-ROAD USE)	0.023495571	kg/TJ
2022	Ni	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.787981213	kg/TJ
2022	Ni	1A4ai	FOREST WOODFUEL	0.030000000	kg/TJ
2022	Ni	1A4ai	HEAVY FUEL OIL (S<1%)	0.300000000	kg/TJ
2022	Ni	1A4ai	SOD PEAT	0.140000000	kg/TJ
2022	Ni	1A4aii	GASOIL (FOR NON-ROAD USE)	0.001686006	kg/TJ
2022	Ni	1A4aii	MOTOR GASOLINE (S=0.001%)	0.001865179	kg/TJ
2022	Ni	1A4bi	FOREST WOODFUEL	0.030000000	kg/TJ
2022	Ni	1A4bi	HEAVY FUEL OIL (S<1%)	0.300000000	kg/TJ
2022	Ni	1A4bi	SOD PEAT	0.140000000	kg/TJ
2022	Ni	1A4bii	GASOIL (FOR NON-ROAD USE)	0.001686006	kg/TJ
2022	Ni	1A4bii	MOTOR GASOLINE (S=0.001%)	0.001865179	kg/TJ
2022	Ni	1A4ci	ANIMAL-BASED FUELS	0.030000000	kg/TJ
2022	Ni	1A4ci	CHIPS FROM ROUNDWOOD	0.002000000	kg/TJ
2022	Ni	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.029999999	kg/TJ
2022	Ni	1A4ci	COAL (S=1.0%)	0.004000000	kg/TJ
2022	Ni	1A4ci	FOREST WOODFUEL	0.030000000	kg/TJ
2022	Ni	1A4ci	HEAVY FUEL OIL (S<1%)	0.300000000	kg/TJ
2022	Ni	1A4ci	OTHER NON-FOSSIL SOLID	0.002000000	kg/TJ
2022	Ni	1A4ci	RECOVERED WOOD	0.002000000	kg/TJ
2022	Ni	1A4ci	SOD PEAT	0.140000000	kg/TJ
2022	Ni	1A4ci	WOOD RESIDUE CHIPS	0.029999999	kg/TJ
2022	Ni	1A4cii	GASOIL (FOR NON-ROAD USE)	0.001686006	kg/TJ
2022	Ni	1A4cii	MOTOR GASOLINE (S=0.001%)	0.001865179	kg/TJ
2022	Ni	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.024077422	kg/TJ
2022	Ni	1A5a	FOREST WOODFUEL	0.030000000	kg/TJ
2022	Ni	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.001567478	kg/TJ
2022	Ni	1A5a	OTHER PETROLEUM PRODUCTS	0.300000000	kg/TJ

#### Se Implied emission factors in Finnish air pollutant inventory for 2022

2022	Se	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.000240858	kg/TJ
2022	Se	1A2gvii	LIQUID GAS	0.000217391	kg/TJ

2022	Se	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.000266454	kg/TJ
2022	Se	1A3bi	DIESEL OIL (S=001%)	0.000002838	kg/TJ
2022	Se	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000005342	kg/TJ
2022	Se	1A3bii	DIESEL OIL (S=001%)	0.000002838	kg/TJ
2022	Se	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000005329	kg/TJ
2022	Se	1A3biii	DIESEL OIL (S=001%)	0.000002838	kg/TJ
2022	Se	1A3biv	DIESEL OIL (S=001%)	0.000002749	kg/TJ
2022	Se	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000005329	kg/TJ
2022	Se	1A3c	GASOIL (FOR NON-ROAD USE)	0.000240774	kg/TJ
2022	Se	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000234956	kg/TJ
2022	Se	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.000984977	kg/TJ
2022	Se	1A4ai	FOREST WOODFUEL	0.005000000	kg/TJ
2022	Se	1A4aai	GASOIL (FOR NON-ROAD USE)	0.000240858	kg/TJ
2022	Se	1A4aai	MOTOR GASOLINE (S=0.001%)	0.000266454	kg/TJ
2022	Se	1A4bi	FOREST WOODFUEL	0.005000000	kg/TJ
2022	Se	1A4bii	GASOIL (FOR NON-ROAD USE)	0.000240858	kg/TJ
2022	Se	1A4bii	MOTOR GASOLINE (S=0.001%)	0.000266454	kg/TJ
2022	Se	1A4ci	FOREST WOODFUEL	0.005000000	kg/TJ
2022	Se	1A4cii	GASOIL (FOR NON-ROAD USE)	0.000240858	kg/TJ
2022	Se	1A4cii	MOTOR GASOLINE (S=0.001%)	0.000266454	kg/TJ
2022	Se	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000240774	kg/TJ
2022	Se	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000017588	kg/TJ

#### Zn Implied emission factors in Finnish air pollutant inventory for 2022

2022	Zn	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.046572673	kg/TJ
2022	Zn	1A1a	ANIMAL-BASED FUELS	0.054000000	kg/TJ
2022	Zn	1A1a	ANTHRACITE	0.009078639	kg/TJ
2022	Zn	1A1a	ASPHALTENE	0.007422977	kg/TJ
2022	Zn	1A1a	BARK	0.064601713	kg/TJ
2022	Zn	1A1a	CHIPS FROM ROUNDWOOD	0.040345623	kg/TJ
2022	Zn	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.029739650	kg/TJ
2022	Zn	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.359961636	kg/TJ
2022	Zn	1A1a	COAL (S=1.0%)	0.009342247	kg/TJ
2022	Zn	1A1a	CUTTER CHIPS ETC.	0.057215910	kg/TJ
2022	Zn	1A1a	DEINKING WASTE	0.274877789	kg/TJ
2022	Zn	1A1a	DEMOLITION WOOD	0.054000038	kg/TJ
2022	Zn	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.054000000	kg/TJ
2022	Zn	1A1a	FOREST RESIDUE CHIPS	0.284951790	kg/TJ
2022	Zn	1A1a	FOREST RESIDUE CHIPS	0.325819291	kg/TJ
2022	Zn	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.004373470	kg/TJ
2022	Zn	1A1a	HEAVY FUEL OIL (S<0,1%)	0.011484642	kg/TJ
2022	Zn	1A1a	HEAVY FUEL OIL (S<0,5%)	0.010627047	kg/TJ
2022	Zn	1A1a	HEAVY FUEL OIL (S<1%)	0.006271889	kg/TJ
2022	Zn	1A1a	IMPREGNATED WOOD	0.049356364	kg/TJ
2022	Zn	1A1a	INDUSTRIAL WASTE	0.206042702	kg/TJ
2022	Zn	1A1a	LIGNIN	0.054000001	kg/TJ
2022	Zn	1A1a	MILLED PEAT	0.017674034	kg/TJ
2022	Zn	1A1a	MUNICIPAL WASTE - unsorted	0.128888878	kg/TJ
2022	Zn	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.053844659	kg/TJ
2022	Zn	1A1a	OTHER FOSSIL SOLID	0.084000184	kg/TJ
2022	Zn	1A1a	OTHER FUEL	0.054000002	kg/TJ
2022	Zn	1A1a	OTHER NON-FOSSIL SOLID	0.071900824	kg/TJ
2022	Zn	1A1a	OTHER NON-FOSSIL SOLID	0.053313299	kg/TJ
2022	Zn	1A1a	OTHER NON-FOSSIL SOLID	0.053999990	kg/TJ
2022	Zn	1A1a	OTHER WASTE	0.045787967	kg/TJ

2022	Zn	1A1a	OTHER WOOD RESIDUE	0.003791003	kg/TJ
2022	Zn	1A1a	PAPER	0.017237670	kg/TJ
2022	Zn	1A1a	RECOVERED FUEL (REF 2)	0.700000000	kg/TJ
2022	Zn	1A1a	RECOVERED WOOD	0.228123523	kg/TJ
2022	Zn	1A1a	RECYCLED AND WASTE OILS	0.006000016	kg/TJ
2022	Zn	1A1a	SAWDUST	0.058180056	kg/TJ
2022	Zn	1A1a	SOD PEAT	0.326670181	kg/TJ
2022	Zn	1A1a	SOLID RECOVERED FUEL (SRF)	0.549489230	kg/TJ
2022	Zn	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.122365654	kg/TJ
2022	Zn	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.109853843	kg/TJ
2022	Zn	1A1a	WOOD RESIDUE CHIPS	0.377367744	kg/TJ
2022	Zn	1A1a	WOOD STUMP CHIPS	0.244077456	kg/TJ
2022	Zn	1A1b	COKE (S=1.0%)	1.499999952	kg/TJ
2022	Zn	1A1b	PETROLEUM COKE	1.500000000	kg/TJ
2022	Zn	1A1b	SULPHUR CONCENTRATE	0.007714291	kg/TJ
2022	Zn	1A2a	WOOD RESIDUE CHIPS	0.700000003	kg/TJ
2022	Zn	1A2b	HEAVY FUEL OIL (S<1%)	0.001718812	kg/TJ
2022	Zn	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.012000000	kg/TJ
2022	Zn	1A2c	HEAVY FUEL OIL (S<0,1%)	0.010181819	kg/TJ
2022	Zn	1A2c	HEAVY FUEL OIL (S<1%)	0.012000000	kg/TJ
2022	Zn	1A2c	OTHER FOSSIL LIQUID	0.011999991	kg/TJ
2022	Zn	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.700000023	kg/TJ
2022	Zn	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.042226838	kg/TJ
2022	Zn	1A2d	ANIMAL-BASED FUELS	0.007714293	kg/TJ
2022	Zn	1A2d	BARK	0.030068841	kg/TJ
2022	Zn	1A2d	BIOLOGICAL SLURRY	0.024693845	kg/TJ
2022	Zn	1A2d	CHIPS FROM ROUNDWOOD	0.030738162	kg/TJ
2022	Zn	1A2d	COAL (S=1.0%)	0.012000026	kg/TJ
2022	Zn	1A2d	CUTTER CHIPS ETC.	0.002199878	kg/TJ
2022	Zn	1A2d	DEMOLITION WOOD	0.007714295	kg/TJ
2022	Zn	1A2d	FOREST RESIDUE CHIPS	0.022533560	kg/TJ
2022	Zn	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.026871726	kg/TJ
2022	Zn	1A2d	HEAVY FUEL OIL (S<0,1%)	0.019455286	kg/TJ
2022	Zn	1A2d	HEAVY FUEL OIL (S<1%)	0.050377176	kg/TJ
2022	Zn	1A2d	IMPREGNATED WOOD	0.007714289	kg/TJ
2022	Zn	1A2d	INDUSTRIAL WASTE	0.152349871	kg/TJ
2022	Zn	1A2d	METHANOL	0.002665830	kg/TJ
2022	Zn	1A2d	MILLED PEAT	0.003079252	kg/TJ
2022	Zn	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.040550406	kg/TJ
2022	Zn	1A2d	OTHER FUEL	0.678250330	kg/TJ
2022	Zn	1A2d	OTHER WOOD RESIDUE	0.175000000	kg/TJ
2022	Zn	1A2d	PAPER	0.054000002	kg/TJ
2022	Zn	1A2d	PLASTIC WASTE	0.007712547	kg/TJ
2022	Zn	1A2d	RECOVERED WOOD	0.020910661	kg/TJ
2022	Zn	1A2d	RECYCLED AND WASTE OILS	0.000857143	kg/TJ
2022	Zn	1A2d	SAWDUST	0.048576081	kg/TJ
2022	Zn	1A2d	SOLID RECOVERED FUEL (SRF)	0.146290874	kg/TJ
2022	Zn	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.006729549	kg/TJ
2022	Zn	1A2d	WOOD RESIDUE CHIPS	0.009804054	kg/TJ
2022	Zn	1A2d	WOOD STUMP CHIPS	0.007714285	kg/TJ
2022	Zn	1A2e	ANIMAL FATS AND OILS	0.053999998	kg/TJ
2022	Zn	1A2e	ANIMAL-BASED FUELS	0.700000000	kg/TJ
2022	Zn	1A2e	BIO-FUEL OIL	0.012000000	kg/TJ
2022	Zn	1A2e	CHIPS FROM ROUNDWOOD	0.054000000	kg/TJ
2022	Zn	1A2e	COAL (S=1.0%)	0.084201147	kg/TJ
2022	Zn	1A2e	COKE (S=1.0%)	1.500000478	kg/TJ

2022	Zn	1A2e	FOREST RESIDUE CHIPS	0.699999607	kg/TJ
2022	Zn	1A2e	HEAVY FUEL OIL (S<0,1%)	0.012000000	kg/TJ
2022	Zn	1A2e	HEAVY FUEL OIL (S<1%)	0.012002501	kg/TJ
2022	Zn	1A2e	MILLED PEAT	0.216827417	kg/TJ
2022	Zn	1A2e	OTHER NON-FOSSIL SOLID	0.054000000	kg/TJ
2022	Zn	1A2e	PEAT PELLETS AND BRIQUETTES	0.008000000	kg/TJ
2022	Zn	1A2e	RECOVERED WOOD	0.054000024	kg/TJ
2022	Zn	1A2e	SOD PEAT	0.329999997	kg/TJ
2022	Zn	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.700000000	kg/TJ
2022	Zn	1A2e	WOOD STUMP CHIPS	0.700000013	kg/TJ
2022	Zn	1A2f	CHIPS FROM ROUNDWOOD	0.700000010	kg/TJ
2022	Zn	1A2f	COAL (S=1.0%)	0.939557750	kg/TJ
2022	Zn	1A2f	COKE (S=1.0%)	1.500000250	kg/TJ
2022	Zn	1A2f	CUTTER CHIPS ETC.	0.053999999	kg/TJ
2022	Zn	1A2f	FOREST RESIDUE CHIPS	0.700000018	kg/TJ
2022	Zn	1A2f	HEAVY FUEL OIL (S<0,1%)	0.012000000	kg/TJ
2022	Zn	1A2f	HEAVY FUEL OIL (S<1%)	0.011566078	kg/TJ
2022	Zn	1A2f	INDUSTRIAL WASTE	0.699998391	kg/TJ
2022	Zn	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.054000002	kg/TJ
2022	Zn	1A2f	OTHER FOSSIL LIQUID	0.012000000	kg/TJ
2022	Zn	1A2f	OTHER FUEL	0.053999998	kg/TJ
2022	Zn	1A2f	OTHER HEAVY DISTILLATES	0.012000001	kg/TJ
2022	Zn	1A2f	PETROLEUM COKE	1.500000000	kg/TJ
2022	Zn	1A2f	PLASTIC WASTE	0.007714269	kg/TJ
2022	Zn	1A2f	RECYCLED AND WASTE OILS	0.005999998	kg/TJ
2022	Zn	1A2f	RUBBER WASTE	0.054000004	kg/TJ
2022	Zn	1A2f	SAWDUST	0.054000002	kg/TJ
2022	Zn	1A2f	SOLID RECOVERED FUEL (SRF)	0.700000000	kg/TJ
2022	Zn	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.700000267	kg/TJ
2022	Zn	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.024085805	kg/TJ
2022	Zn	1A2gvii	LIQUID GAS	0.021739130	kg/TJ
2022	Zn	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.026645408	kg/TJ
2022	Zn	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.054000001	kg/TJ
2022	Zn	1A2gviii	BARK	0.252597564	kg/TJ
2022	Zn	1A2gviii	CHIPS FROM ROUNDWOOD	0.056625337	kg/TJ
2022	Zn	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.699999987	kg/TJ
2022	Zn	1A2gviii	CUTTER CHIPS ETC.	0.078348088	kg/TJ
2022	Zn	1A2gviii	DEMOLITION WOOD	0.053999990	kg/TJ
2022	Zn	1A2gviii	FOREST RESIDUE CHIPS	0.700000000	kg/TJ
2022	Zn	1A2gviii	FOREST RESIDUE CHIPS	0.700000567	kg/TJ
2022	Zn	1A2gviii	HAZARDOUS WASTE	0.468582537	kg/TJ
2022	Zn	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.012000000	kg/TJ
2022	Zn	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.012000005	kg/TJ
2022	Zn	1A2gviii	HEAVY FUEL OIL (S<1%)	0.012000000	kg/TJ
2022	Zn	1A2gviii	IMPREGNATED WOOD	0.054000015	kg/TJ
2022	Zn	1A2gviii	MILLED PEAT	0.008020041	kg/TJ
2022	Zn	1A2gviii	MUNICIPAL WASTE - unsorted	0.026263854	kg/TJ
2022	Zn	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.054000068	kg/TJ
2022	Zn	1A2gviii	OTHER HEAVY DISTILLATES	0.008468431	kg/TJ
2022	Zn	1A2gviii	OTHER NON-FOSSIL SOLID	0.053999999	kg/TJ
2022	Zn	1A2gviii	OTHER NON-FOSSIL SOLID	0.053999976	kg/TJ
2022	Zn	1A2gviii	OTHER WASTE	0.054000000	kg/TJ
2022	Zn	1A2gviii	OTHER WOOD RESIDUE	0.602121209	kg/TJ
2022	Zn	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.008000000	kg/TJ
2022	Zn	1A2gviii	PLASTIC WASTE	0.054000004	kg/TJ
2022	Zn	1A2gviii	RECOVERED WOOD	0.101474108	kg/TJ

2022	Zn	1A2gviii	RECYCLED AND WASTE OILS	0.006000000	kg/TJ
2022	Zn	1A2gviii	SAWDUST	0.054000004	kg/TJ
2022	Zn	1A2gviii	SAWDUST AND CUTTER CHIPS	0.700000008	kg/TJ
2022	Zn	1A2gviii	SOD PEAT	0.085972288	kg/TJ
2022	Zn	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.700000289	kg/TJ
2022	Zn	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.070387409	kg/TJ
2022	Zn	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.685534117	kg/TJ
2022	Zn	1A2gviii	WOOD RESIDUE CHIPS	0.408763385	kg/TJ
2022	Zn	1A2gviii	WOOD STUMP CHIPS	0.699999346	kg/TJ
2022	Zn	1A3bi	DIESEL OIL (S=001%)	0.000510769	kg/TJ
2022	Zn	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000881490	kg/TJ
2022	Zn	1A3bii	DIESEL OIL (S=001%)	0.000510769	kg/TJ
2022	Zn	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000879298	kg/TJ
2022	Zn	1A3biii	DIESEL OIL (S=001%)	0.000510769	kg/TJ
2022	Zn	1A3biv	DIESEL OIL (S=001%)	0.000494753	kg/TJ
2022	Zn	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000879298	kg/TJ
2022	Zn	1A3c	GASOIL (FOR NON-ROAD USE)	0.024077422	kg/TJ
2022	Zn	1A3dii	GASOIL (FOR NON-ROAD USE)	0.028194685	kg/TJ
2022	Zn	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.029549295	kg/TJ
2022	Zn	1A4ai	FOREST WOODFUEL	0.700000000	kg/TJ
2022	Zn	1A4ai	HEAVY FUEL OIL (S<1%)	0.012000000	kg/TJ
2022	Zn	1A4ai	SOD PEAT	0.330000000	kg/TJ
2022	Zn	1A4aii	GASOIL (FOR NON-ROAD USE)	0.024085805	kg/TJ
2022	Zn	1A4aii	MOTOR GASOLINE (S=0.001%)	0.026645408	kg/TJ
2022	Zn	1A4bi	FOREST WOODFUEL	0.700000000	kg/TJ
2022	Zn	1A4bi	HEAVY FUEL OIL (S<1%)	0.012000000	kg/TJ
2022	Zn	1A4bi	SOD PEAT	0.330000000	kg/TJ
2022	Zn	1A4bii	GASOIL (FOR NON-ROAD USE)	0.024085805	kg/TJ
2022	Zn	1A4bii	MOTOR GASOLINE (S=0.001%)	0.026645408	kg/TJ
2022	Zn	1A4ci	ANIMAL-BASED FUELS	0.699999990	kg/TJ
2022	Zn	1A4ci	CHIPS FROM ROUNDWOOD	0.054000001	kg/TJ
2022	Zn	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.699999975	kg/TJ
2022	Zn	1A4ci	COAL (S=1.0%)	0.084000000	kg/TJ
2022	Zn	1A4ci	FOREST WOODFUEL	0.700000000	kg/TJ
2022	Zn	1A4ci	HEAVY FUEL OIL (S<1%)	0.012000000	kg/TJ
2022	Zn	1A4ci	OTHER NON-FOSSIL SOLID	0.053999999	kg/TJ
2022	Zn	1A4ci	RECOVERED WOOD	0.053999998	kg/TJ
2022	Zn	1A4ci	SOD PEAT	0.330000000	kg/TJ
2022	Zn	1A4ci	WOOD RESIDUE CHIPS	0.699999977	kg/TJ
2022	Zn	1A4cii	GASOIL (FOR NON-ROAD USE)	0.024085805	kg/TJ
2022	Zn	1A4cii	MOTOR GASOLINE (S=0.001%)	0.026645408	kg/TJ
2022	Zn	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.028892906	kg/TJ
2022	Zn	1A5a	FOREST WOODFUEL	0.700000000	kg/TJ
2022	Zn	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.002069376	kg/TJ
2022	Zn	1A5a	OTHER PETROLEUM PRODUCTS	0.012000000	kg/TJ

#### PCDD/F Implied emission factors in Finnish air pollutant inventory for 2022

2022	PCDD/F	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000009959	g/TJ
2022	PCDD/F	1A1a	ANIMAL-BASED FUELS	0.000001570	g/TJ
2022	PCDD/F	1A1a	ASPHALTENE	0.000000252	g/TJ
2022	PCDD/F	1A1a	BARK	0.000017660	g/TJ
2022	PCDD/F	1A1a	BIO PYROLYSIS OIL	0.000000500	g/TJ
2022	PCDD/F	1A1a	BIO-FUEL OIL	0.000000500	g/TJ
2022	PCDD/F	1A1a	BLAST FURNACE GAS	0.000000500	g/TJ
2022	PCDD/F	1A1a	CHIPS FROM ROUNDWOOD	0.000016373	g/TJ

2022	PCDD/F	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000021077	g/TJ
2022	PCDD/F	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.000013910	g/TJ
2022	PCDD/F	1A1a	COAL (S=1.0%)	0.000003471	g/TJ
2022	PCDD/F	1A1a	COKE OVEN GAS	0.000000500	g/TJ
2022	PCDD/F	1A1a	CUTTER CHIPS ETC.	0.000020846	g/TJ
2022	PCDD/F	1A1a	DEINKING WASTE	0.000041250	g/TJ
2022	PCDD/F	1A1a	DEMOLITION WOOD	0.000002498	g/TJ
2022	PCDD/F	1A1a	DIESEL OIL (S=001%)	0.000000538	g/TJ
2022	PCDD/F	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.000021000	g/TJ
2022	PCDD/F	1A1a	FOREST RESIDUE CHIPS	0.000008140	g/TJ
2022	PCDD/F	1A1a	FOREST RESIDUE CHIPS	0.000015764	g/TJ
2022	PCDD/F	1A1a	GASOIL (FOR NON-ROAD USE)	0.000000576	g/TJ
2022	PCDD/F	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.000000410	g/TJ
2022	PCDD/F	1A1a	HEAVY FUEL OIL (S<0,1%)	0.000000368	g/TJ
2022	PCDD/F	1A1a	HEAVY FUEL OIL (S<0,5%)	0.000000401	g/TJ
2022	PCDD/F	1A1a	HEAVY FUEL OIL (S<1%)	0.000000328	g/TJ
2022	PCDD/F	1A1a	HYDROGEN	0.000000500	g/TJ
2022	PCDD/F	1A1a	IMPREGNATED WOOD	0.000027325	g/TJ
2022	PCDD/F	1A1a	INDUSTRIAL WASTE	0.000014945	g/TJ
2022	PCDD/F	1A1a	LANDFILL GAS	0.000000500	g/TJ
2022	PCDD/F	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.000000498	g/TJ
2022	PCDD/F	1A1a	LIGNIN	0.000021000	g/TJ
2022	PCDD/F	1A1a	LIQUEFIED NATURAL GAS (LNG)	0.000000500	g/TJ
2022	PCDD/F	1A1a	LIQUID GAS	0.000000500	g/TJ
2022	PCDD/F	1A1a	MILLED PEAT	0.000011971	g/TJ
2022	PCDD/F	1A1a	MOTOR GASOLINE (S=0.001%)	0.000000518	g/TJ
2022	PCDD/F	1A1a	MUNICIPAL WASTE - unsorted	0.000105195	g/TJ
2022	PCDD/F	1A1a	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A1a	NATURAL GAS	0.000000511	g/TJ
2022	PCDD/F	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000020956	g/TJ
2022	PCDD/F	1A1a	OTHER FOSSIL GAS	0.000017915	g/TJ
2022	PCDD/F	1A1a	OTHER FOSSIL SOLID	0.000000004	g/TJ
2022	PCDD/F	1A1a	OTHER FUEL	0.000021000	g/TJ
2022	PCDD/F	1A1a	OTHER MEDIUM DISTILLATES	0.000000502	g/TJ
2022	PCDD/F	1A1a	OTHER NON-FOSSIL GAS	0.000000500	g/TJ
2022	PCDD/F	1A1a	OTHER NON-FOSSIL SOLID	0.000021027	g/TJ
2022	PCDD/F	1A1a	OTHER NON-FOSSIL SOLID	0.000020754	g/TJ
2022	PCDD/F	1A1a	OTHER NON-FOSSIL SOLID	0.000021000	g/TJ
2022	PCDD/F	1A1a	OTHER WASTE	0.000024235	g/TJ
2022	PCDD/F	1A1a	OTHER WOOD RESIDUE	0.000003745	g/TJ
2022	PCDD/F	1A1a	PAPER	0.000014936	g/TJ
2022	PCDD/F	1A1a	RECOVERED FUEL (REF 2)	0.000041250	g/TJ
2022	PCDD/F	1A1a	RECOVERED WOOD	0.000015627	g/TJ
2022	PCDD/F	1A1a	RECYCLED AND WASTE OILS	0.000000091	g/TJ
2022	PCDD/F	1A1a	RENEWABLE DIESEL	0.000000500	g/TJ
2022	PCDD/F	1A1a	SAWDUST	0.000018481	g/TJ
2022	PCDD/F	1A1a	SOD PEAT	0.000017447	g/TJ
2022	PCDD/F	1A1a	SOLID RECOVERED FUEL (SRF)	0.000017592	g/TJ
2022	PCDD/F	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000017892	g/TJ
2022	PCDD/F	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000020238	g/TJ
2022	PCDD/F	1A1a	WOOD RESIDUE CHIPS	0.000019731	g/TJ
2022	PCDD/F	1A1a	WOOD STUMP CHIPS	0.000010599	g/TJ
2022	PCDD/F	1A1b	COKE (S=1.0%)	0.000004001	g/TJ
2022	PCDD/F	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.000000501	g/TJ
2022	PCDD/F	1A1b	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A1b	NATURAL GAS	0.000000500	g/TJ

2022	PCDD/F	1A1b	OTHER FOSSIL GAS	0.000000500	g/TJ
2022	PCDD/F	1A1b	OTHER FOSSIL LIQUID	0.000000400	g/TJ
2022	PCDD/F	1A1b	OTHER MEDIUM DISTILLATES	0.000000500	g/TJ
2022	PCDD/F	1A1b	OTHER NON-FOSSIL GAS	0.000000500	g/TJ
2022	PCDD/F	1A1b	PETROLEUM COKE	0.000004000	g/TJ
2022	PCDD/F	1A1b	REFINERY GAS	0.000000500	g/TJ
2022	PCDD/F	1A1b	REFINERY GASES	0.000000500	g/TJ
2022	PCDD/F	1A1b	SULPHUR CONCENTRATE	0.000021000	g/TJ
2022	PCDD/F	1A2a	BLAST FURNACE GAS	0.000000178	g/TJ
2022	PCDD/F	1A2a	COKE OVEN GAS	0.000000239	g/TJ
2022	PCDD/F	1A2a	DIESEL OIL (S=001%)	0.000000500	g/TJ
2022	PCDD/F	1A2a	GASOIL (FOR NON-ROAD USE)	0.000000188	g/TJ
2022	PCDD/F	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.000000501	g/TJ
2022	PCDD/F	1A2a	LIQUID GAS	0.000000173	g/TJ
2022	PCDD/F	1A2a	NATURAL GAS	0.000000459	g/TJ
2022	PCDD/F	1A2a	WOOD RESIDUE CHIPS	0.000021000	g/TJ
2022	PCDD/F	1A2b	COKE (S=1.0%)	0.000004000	g/TJ
2022	PCDD/F	1A2b	HEAVY FUEL OIL (S<1%)	0.000000274	g/TJ
2022	PCDD/F	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.000000449	g/TJ
2022	PCDD/F	1A2b	LIQUEFIED NATURAL GAS (LNG)	0.000000500	g/TJ
2022	PCDD/F	1A2b	LIQUID GAS	0.000000493	g/TJ
2022	PCDD/F	1A2b	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2b	OTHER HEAVY DISTILLATES	0.000000400	g/TJ
2022	PCDD/F	1A2c	DIESEL OIL (S=001%)	0.000000514	g/TJ
2022	PCDD/F	1A2c	GASIFIED WASTE	0.000000500	g/TJ
2022	PCDD/F	1A2c	GASOIL (FOR NON-ROAD USE)	0.000000500	g/TJ
2022	PCDD/F	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.000000400	g/TJ
2022	PCDD/F	1A2c	HEAVY FUEL OIL (S<0,1%)	0.000000400	g/TJ
2022	PCDD/F	1A2c	HEAVY FUEL OIL (S<1%)	0.000000235	g/TJ
2022	PCDD/F	1A2c	HYDROGEN	0.000000501	g/TJ
2022	PCDD/F	1A2c	LANDFILL GAS	0.000000499	g/TJ
2022	PCDD/F	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.000000498	g/TJ
2022	PCDD/F	1A2c	LIQUEFIED NATURAL GAS (LNG)	0.000000412	g/TJ
2022	PCDD/F	1A2c	LIQUID GAS	0.000000500	g/TJ
2022	PCDD/F	1A2c	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2c	OTHER FOSSIL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2c	OTHER FOSSIL LIQUID	0.000000400	g/TJ
2022	PCDD/F	1A2c	OTHER MEDIUM DISTILLATES	0.000000500	g/TJ
2022	PCDD/F	1A2c	TALL PITCH AND OIL	0.000000400	g/TJ
2022	PCDD/F	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000021000	g/TJ
2022	PCDD/F	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000014915	g/TJ
2022	PCDD/F	1A2d	ANIMAL-BASED FUELS	0.000007824	g/TJ
2022	PCDD/F	1A2d	AROMATIC GAS	0.000001108	g/TJ
2022	PCDD/F	1A2d	BARK	0.000018090	g/TJ
2022	PCDD/F	1A2d	BIOGAS FROM WASTEWATER TREATMENT	0.000000500	g/TJ
2022	PCDD/F	1A2d	BIOLOGICAL SLURRY	0.000054403	g/TJ
2022	PCDD/F	1A2d	CHIPS FROM ROUNDWOOD	0.000011597	g/TJ
2022	PCDD/F	1A2d	COAL (S=1.0%)	0.000003913	g/TJ
2022	PCDD/F	1A2d	CUTTER CHIPS ETC.	0.000042848	g/TJ
2022	PCDD/F	1A2d	DEMOLITION WOOD	0.000015368	g/TJ
2022	PCDD/F	1A2d	FOREST RESIDUE CHIPS	0.000008612	g/TJ
2022	PCDD/F	1A2d	GASOIL (FOR NON-ROAD USE)	0.000000533	g/TJ
2022	PCDD/F	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.000004669	g/TJ
2022	PCDD/F	1A2d	HEAVY FUEL OIL (S<0,1%)	0.000000612	g/TJ
2022	PCDD/F	1A2d	HEAVY FUEL OIL (S<1%)	0.000000399	g/TJ
2022	PCDD/F	1A2d	HYDROGEN	0.000000500	g/TJ

2022	PCDD/F	1A2d	IMPREGNATED WOOD	0.000015369	g/TJ
2022	PCDD/F	1A2d	INDUSTRIAL WASTE	0.000041250	g/TJ
2022	PCDD/F	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.000000496	g/TJ
2022	PCDD/F	1A2d	LIQUEFIED NATURAL GAS (LNG)	0.000000500	g/TJ
2022	PCDD/F	1A2d	LIQUID GAS	0.000000500	g/TJ
2022	PCDD/F	1A2d	METHANOL	0.000014258	g/TJ
2022	PCDD/F	1A2d	MILLED PEAT	0.000015011	g/TJ
2022	PCDD/F	1A2d	NATURAL GAS	0.000002304	g/TJ
2022	PCDD/F	1A2d	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000021000	g/TJ
2022	PCDD/F	1A2d	OTHER FUEL	0.001228014	g/TJ
2022	PCDD/F	1A2d	OTHER NON-FOSSIL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2d	OTHER WOOD RESIDUE	0.000021000	g/TJ
2022	PCDD/F	1A2d	PAPER	0.000001163	g/TJ
2022	PCDD/F	1A2d	PLASTIC WASTE	0.000041250	g/TJ
2022	PCDD/F	1A2d	RECOVERED WOOD	0.000022663	g/TJ
2022	PCDD/F	1A2d	RECYCLED AND WASTE OILS	0.000000149	g/TJ
2022	PCDD/F	1A2d	SAWDUST	0.000016175	g/TJ
2022	PCDD/F	1A2d	SOLID RECOVERED FUEL (SRF)	0.000074216	g/TJ
2022	PCDD/F	1A2d	TALL PITCH AND OIL	0.000006824	g/TJ
2022	PCDD/F	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000002066	g/TJ
2022	PCDD/F	1A2d	WOOD RESIDUE CHIPS	0.000012835	g/TJ
2022	PCDD/F	1A2d	WOOD STUMP CHIPS	0.000007824	g/TJ
2022	PCDD/F	1A2e	ANIMAL FATS AND OILS	0.000021000	g/TJ
2022	PCDD/F	1A2e	ANIMAL-BASED FUELS	0.000021000	g/TJ
2022	PCDD/F	1A2e	BIO-FUEL OIL	0.000000400	g/TJ
2022	PCDD/F	1A2e	BIOGAS FROM WASTEWATER TREATMENT	0.000000500	g/TJ
2022	PCDD/F	1A2e	CHIPS FROM ROUNDWOOD	0.000021000	g/TJ
2022	PCDD/F	1A2e	COAL (S=1.0%)	0.000004000	g/TJ
2022	PCDD/F	1A2e	COKE (S=1.0%)	0.000004000	g/TJ
2022	PCDD/F	1A2e	FOREST RESIDUE CHIPS	0.000021000	g/TJ
2022	PCDD/F	1A2e	GASOIL (FOR NON-ROAD USE)	0.000000502	g/TJ
2022	PCDD/F	1A2e	HEAVY FUEL OIL (S<0,1%)	0.000000401	g/TJ
2022	PCDD/F	1A2e	HEAVY FUEL OIL (S<1%)	0.000000400	g/TJ
2022	PCDD/F	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.000000500	g/TJ
2022	PCDD/F	1A2e	LIQUEFIED NATURAL GAS (LNG)	0.000000501	g/TJ
2022	PCDD/F	1A2e	LIQUID GAS	0.000000500	g/TJ
2022	PCDD/F	1A2e	MILLED PEAT	0.000017500	g/TJ
2022	PCDD/F	1A2e	NAPHTHA	0.000000500	g/TJ
2022	PCDD/F	1A2e	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2e	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2e	OTHER MEDIUM DISTILLATES	0.000000515	g/TJ
2022	PCDD/F	1A2e	OTHER NON-FOSSIL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2e	OTHER NON-FOSSIL SOLID	0.000021000	g/TJ
2022	PCDD/F	1A2e	PEAT PELLETS AND BRIQUETTES	0.000017500	g/TJ
2022	PCDD/F	1A2e	RECOVERED WOOD	0.000021000	g/TJ
2022	PCDD/F	1A2e	SOD PEAT	0.000017500	g/TJ
2022	PCDD/F	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000021000	g/TJ
2022	PCDD/F	1A2e	WOOD STUMP CHIPS	0.000021000	g/TJ
2022	PCDD/F	1A2f	CHIPS FROM ROUNDWOOD	0.000021000	g/TJ
2022	PCDD/F	1A2f	COAL (S=1.0%)	0.000002799	g/TJ
2022	PCDD/F	1A2f	COKE (S=1.0%)	0.000001807	g/TJ
2022	PCDD/F	1A2f	COKE OVEN GAS	0.000000500	g/TJ
2022	PCDD/F	1A2f	CUTTER CHIPS ETC.	0.000021008	g/TJ
2022	PCDD/F	1A2f	DIESEL OIL (S=001%)	0.000000512	g/TJ
2022	PCDD/F	1A2f	FOREST RESIDUE CHIPS	0.000021000	g/TJ

2022	PCDD/F	1A2f	GASOIL (FOR NON-ROAD USE)	0.000000496	g/TJ
2022	PCDD/F	1A2f	HEAVY FUEL OIL (S<0,1%)	0.000000400	g/TJ
2022	PCDD/F	1A2f	HEAVY FUEL OIL (S<1%)	0.000000400	g/TJ
2022	PCDD/F	1A2f	INDUSTRIAL WASTE	0.000013316	g/TJ
2022	PCDD/F	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.000000500	g/TJ
2022	PCDD/F	1A2f	LIQUID GAS	0.000000500	g/TJ
2022	PCDD/F	1A2f	MOTOR GASOLINE (S=0.001%)	0.000000501	g/TJ
2022	PCDD/F	1A2f	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2f	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000021000	g/TJ
2022	PCDD/F	1A2f	OTHER FOSSIL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2f	OTHER FUEL	0.000021000	g/TJ
2022	PCDD/F	1A2f	OTHER HEAVY DISTILLATES	0.000000400	g/TJ
2022	PCDD/F	1A2f	OTHER NON-FOSSIL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2f	PLASTIC WASTE	0.000001188	g/TJ
2022	PCDD/F	1A2f	RECYCLED AND WASTE OILS	0.000000392	g/TJ
2022	PCDD/F	1A2f	RUBBER WASTE	0.000013316	g/TJ
2022	PCDD/F	1A2f	SAWDUST	0.000021000	g/TJ
2022	PCDD/F	1A2f	SOLID RECOVERED FUEL (SRF)	0.000004285	g/TJ
2022	PCDD/F	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000021000	g/TJ
2022	PCDD/F	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000001263	g/TJ
2022	PCDD/F	1A2gviii	BARK	0.000015394	g/TJ
2022	PCDD/F	1A2gviii	BIOGAS FROM WASTEWATER TREATMENT	0.000000500	g/TJ
2022	PCDD/F	1A2gviii	CHIPS FROM ROUNDWOOD	0.000005109	g/TJ
2022	PCDD/F	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.000021000	g/TJ
2022	PCDD/F	1A2gviii	CUTTER CHIPS ETC.	0.000019322	g/TJ
2022	PCDD/F	1A2gviii	DEMOLITION WOOD	0.000002232	g/TJ
2022	PCDD/F	1A2gviii	DIESEL OIL (S=001%)	0.000000500	g/TJ
2022	PCDD/F	1A2gviii	FOREST RESIDUE CHIPS	0.000010004	g/TJ
2022	PCDD/F	1A2gviii	FOREST RESIDUE CHIPS	0.000021000	g/TJ
2022	PCDD/F	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.000000394	g/TJ
2022	PCDD/F	1A2gviii	HAZARDOUS WASTE	0.000000106	g/TJ
2022	PCDD/F	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.000000402	g/TJ
2022	PCDD/F	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.000000400	g/TJ
2022	PCDD/F	1A2gviii	HEAVY FUEL OIL (S<1%)	0.000000372	g/TJ
2022	PCDD/F	1A2gviii	IMPREGNATED WOOD	0.000000051	g/TJ
2022	PCDD/F	1A2gviii	LANDFILL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.000000466	g/TJ
2022	PCDD/F	1A2gviii	LIQUEFIED NATURAL GAS (LNG)	0.000000500	g/TJ
2022	PCDD/F	1A2gviii	LIQUID GAS	0.000000500	g/TJ
2022	PCDD/F	1A2gviii	MILLED PEAT	0.000009613	g/TJ
2022	PCDD/F	1A2gviii	MUNICIPAL WASTE - unsorted	0.000000963	g/TJ
2022	PCDD/F	1A2gviii	NAPHTHA	0.000000500	g/TJ
2022	PCDD/F	1A2gviii	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2gviii	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000021000	g/TJ
2022	PCDD/F	1A2gviii	OTHER HEAVY DISTILLATES	0.000000400	g/TJ
2022	PCDD/F	1A2gviii	OTHER NON-FOSSIL GAS	0.000000500	g/TJ
2022	PCDD/F	1A2gviii	OTHER NON-FOSSIL SOLID	0.000021000	g/TJ
2022	PCDD/F	1A2gviii	OTHER NON-FOSSIL SOLID	0.000021001	g/TJ
2022	PCDD/F	1A2gviii	OTHER WASTE	0.000000047	g/TJ
2022	PCDD/F	1A2gviii	OTHER WOOD RESIDUE	0.000021000	g/TJ
2022	PCDD/F	1A2gviii	PEAT PELLETS AND BRIQUETTES	0.000017497	g/TJ
2022	PCDD/F	1A2gviii	PLASTIC WASTE	0.000000045	g/TJ
2022	PCDD/F	1A2gviii	RECOVERED WOOD	0.000003938	g/TJ
2022	PCDD/F	1A2gviii	RECYCLED AND WASTE OILS	0.000000107	g/TJ

2022	PCDD/F	1A2gviii	RENEWABLE DIESEL	0.000000500	g/TJ
2022	PCDD/F	1A2gviii	SAWDUST	0.000004833	g/TJ
2022	PCDD/F	1A2gviii	SAWDUST AND CUTTER CHIPS	0.000021000	g/TJ
2022	PCDD/F	1A2gviii	SOD PEAT	0.000017500	g/TJ
2022	PCDD/F	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000023114	g/TJ
2022	PCDD/F	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000019258	g/TJ
2022	PCDD/F	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000021000	g/TJ
2022	PCDD/F	1A2gviii	WOOD RESIDUE CHIPS	0.000020819	g/TJ
2022	PCDD/F	1A2gviii	WOOD STUMP CHIPS	0.000003792	g/TJ
2022	PCDD/F	1A3bi	DIESEL OIL (S=001%)	0.000010695	g/TJ
2022	PCDD/F	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000004312	g/TJ
2022	PCDD/F	1A3bii	DIESEL OIL (S=001%)	0.000013374	g/TJ
2022	PCDD/F	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000005032	g/TJ
2022	PCDD/F	1A3biii	DIESEL OIL (S=001%)	0.000001007	g/TJ
2022	PCDD/F	1A3biv	DIESEL OIL (S=001%)	0.000052114	g/TJ
2022	PCDD/F	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000009196	g/TJ
2022	PCDD/F	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000003054	g/TJ
2022	PCDD/F	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.000011573	g/TJ
2022	PCDD/F	1A3ei	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A4ai	FOREST WOODFUEL	0.000021000	g/TJ
2022	PCDD/F	1A4ai	GASOIL (FOR NON-ROAD USE)	0.000000506	g/TJ
2022	PCDD/F	1A4ai	HEAVY FUEL OIL (S<1%)	0.000000400	g/TJ
2022	PCDD/F	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.000000500	g/TJ
2022	PCDD/F	1A4ai	NAPHTHA	0.000000500	g/TJ
2022	PCDD/F	1A4ai	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A4ai	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A4ai	SOD PEAT	0.000017500	g/TJ
2022	PCDD/F	1A4bi	FOREST WOODFUEL	0.000021000	g/TJ
2022	PCDD/F	1A4bi	HEAVY FUEL OIL (S<1%)	0.000000400	g/TJ
2022	PCDD/F	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.000000500	g/TJ
2022	PCDD/F	1A4bi	LIQUID GAS	0.000000500	g/TJ
2022	PCDD/F	1A4bi	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A4bi	PARAFFIN	0.000000500	g/TJ
2022	PCDD/F	1A4bi	SOD PEAT	0.000017500	g/TJ
2022	PCDD/F	1A4ci	ANIMAL-BASED FUELS	0.000021000	g/TJ
2022	PCDD/F	1A4ci	CHIPS FROM ROUNDWOOD	0.000021000	g/TJ
2022	PCDD/F	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.000021000	g/TJ
2022	PCDD/F	1A4ci	COAL (S=1.0%)	0.000004000	g/TJ
2022	PCDD/F	1A4ci	FOREST WOODFUEL	0.000021000	g/TJ
2022	PCDD/F	1A4ci	HEAVY FUEL OIL (S<1%)	0.000000400	g/TJ
2022	PCDD/F	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.000000500	g/TJ
2022	PCDD/F	1A4ci	LIQUID GAS	0.000000500	g/TJ
2022	PCDD/F	1A4ci	NATURAL GAS	0.000000500	g/TJ
2022	PCDD/F	1A4ci	OTHER NON-FOSSIL SOLID	0.000021000	g/TJ
2022	PCDD/F	1A4ci	RECOVERED WOOD	0.000021000	g/TJ
2022	PCDD/F	1A4ci	SOD PEAT	0.000017500	g/TJ
2022	PCDD/F	1A4ci	WOOD RESIDUE CHIPS	0.000021000	g/TJ
2022	PCDD/F	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000003130	g/TJ
2022	PCDD/F	1A5a	FOREST WOODFUEL	0.000021000	g/TJ
2022	PCDD/F	1A5a	LANDFILL GAS	0.000000500	g/TJ
2022	PCDD/F	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000000702	g/TJ
2022	PCDD/F	1A5a	LIQUID GAS	0.000000500	g/TJ
2022	PCDD/F	1A5a	OTHER PETROLEUM PRODUCTS	0.000000400	g/TJ

**PAH-4 Implied emission factors in Finnish air pollutant inventory for 2022**

2022	PAH-4	1A1a	0-FIBRE/BIOLOGICAL SLURRY	2.700000224	g/TJ
2022	PAH-4	1A1a	ANIMAL-BASED FUELS	2.699999978	g/TJ
2022	PAH-4	1A1a	ASPHALTENE	2.800000000	g/TJ
2022	PAH-4	1A1a	BARK	2.687189967	g/TJ
2022	PAH-4	1A1a	BIO PYROLYSIS OIL	2.799999990	g/TJ
2022	PAH-4	1A1a	BIO-FUEL OIL	2.799999999	g/TJ
2022	PAH-4	1A1a	CHIPS FROM ROUNDWOOD	2.605144416	g/TJ
2022	PAH-4	1A1a	CHIPS FROM ROUNDWOOD, LARGE	2.734619755	g/TJ
2022	PAH-4	1A1a	CHIPS FROM ROUNDWOOD, SMALL	2.710766350	g/TJ
2022	PAH-4	1A1a	COAL (S=1.0%)	0.009241748	g/TJ
2022	PAH-4	1A1a	CUTTER CHIPS ETC.	2.703891950	g/TJ
2022	PAH-4	1A1a	DEINKING WASTE	2.500000397	g/TJ
2022	PAH-4	1A1a	DEMOLITION WOOD	3.260106084	g/TJ
2022	PAH-4	1A1a	DIESEL OIL (S=001%)	2.799999444	g/TJ
2022	PAH-4	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	2.699999984	g/TJ
2022	PAH-4	1A1a	FOREST RESIDUE CHIPS	2.270883983	g/TJ
2022	PAH-4	1A1a	FOREST RESIDUE CHIPS	2.624023693	g/TJ
2022	PAH-4	1A1a	GASOIL (FOR NON-ROAD USE)	2.715566371	g/TJ
2022	PAH-4	1A1a	HEAVY FUEL OIL (normal, S>1%)	2.799999460	g/TJ
2022	PAH-4	1A1a	HEAVY FUEL OIL (S<0,1%)	2.800000073	g/TJ
2022	PAH-4	1A1a	HEAVY FUEL OIL (S<0,5%)	2.792176357	g/TJ
2022	PAH-4	1A1a	HEAVY FUEL OIL (S<1%)	2.645557792	g/TJ
2022	PAH-4	1A1a	IMPREGNATED WOOD	1.994916971	g/TJ
2022	PAH-4	1A1a	INDUSTRIAL WASTE	0.577861801	g/TJ
2022	PAH-4	1A1a	LIGHT FUEL OIL (S=0.0915%)	2.933490210	g/TJ
2022	PAH-4	1A1a	LIGNIN	2.700000033	g/TJ
2022	PAH-4	1A1a	MILLED PEAT	0.951808175	g/TJ
2022	PAH-4	1A1a	MOTOR GASOLINE (S=0.001%)	2.799999485	g/TJ
2022	PAH-4	1A1a	MUNICIPAL WASTE - unsorted	21.701429305	g/TJ
2022	PAH-4	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	2.699399870	g/TJ
2022	PAH-4	1A1a	OTHER FOSSIL SOLID	0.016966407	g/TJ
2022	PAH-4	1A1a	OTHER FUEL	2.700000099	g/TJ
2022	PAH-4	1A1a	OTHER MEDIUM DISTILLATES	2.799999936	g/TJ
2022	PAH-4	1A1a	OTHER NON-FOSSIL SOLID	2.700002780	g/TJ
2022	PAH-4	1A1a	OTHER NON-FOSSIL SOLID	2.699998524	g/TJ
2022	PAH-4	1A1a	OTHER NON-FOSSIL SOLID	2.712124178	g/TJ
2022	PAH-4	1A1a	OTHER WASTE	1.606783693	g/TJ
2022	PAH-4	1A1a	OTHER WOOD RESIDUE	2.699999424	g/TJ
2022	PAH-4	1A1a	PAPER	2.699999946	g/TJ
2022	PAH-4	1A1a	RECOVERED FUEL (REF 2)	2.500000000	g/TJ
2022	PAH-4	1A1a	RECOVERED WOOD	2.463052770	g/TJ
2022	PAH-4	1A1a	RECYCLED AND WASTE OILS	2.799999240	g/TJ
2022	PAH-4	1A1a	RENEWABLE DIESEL	2.800000000	g/TJ
2022	PAH-4	1A1a	SAWDUST	2.682175788	g/TJ
2022	PAH-4	1A1a	SOD PEAT	1.000000021	g/TJ
2022	PAH-4	1A1a	SOLID RECOVERED FUEL (SRF)	2.505701417	g/TJ
2022	PAH-4	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	2.696433230	g/TJ
2022	PAH-4	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	2.589402246	g/TJ
2022	PAH-4	1A1a	WOOD RESIDUE CHIPS	2.696068095	g/TJ
2022	PAH-4	1A1a	WOOD STUMP CHIPS	2.665081394	g/TJ
2022	PAH-4	1A1b	COKE (S=1.0%)	0.012000000	g/TJ
2022	PAH-4	1A1b	LIGHT FUEL OIL (S=0.0915%)	2.800000045	g/TJ
2022	PAH-4	1A1b	OTHER FOSSIL LIQUID	2.800000000	g/TJ
2022	PAH-4	1A1b	OTHER MEDIUM DISTILLATES	2.800000000	g/TJ
2022	PAH-4	1A1b	PETROLEUM COKE	0.012000000	g/TJ
2022	PAH-4	1A2a	COKE (S=1.0%)	0.001072109	g/TJ

2022	PAH-4	1A2a	DIESEL OIL (S=001%)	2.799999889	g/TJ
2022	PAH-4	1A2a	GASOIL (FOR NON-ROAD USE)	1.053197659	g/TJ
2022	PAH-4	1A2a	LIGHT FUEL OIL (S=0.0915%)	2.799999973	g/TJ
2022	PAH-4	1A2a	OTHER FOSSIL SOLID	0.012000000	g/TJ
2022	PAH-4	1A2a	WOOD RESIDUE CHIPS	2.700000012	g/TJ
2022	PAH-4	1A2b	COAL (S=1.0%)	0.012000006	g/TJ
2022	PAH-4	1A2b	COKE (S=1.0%)	0.012000036	g/TJ
2022	PAH-4	1A2b	HEAVY FUEL OIL (S<1%)	2.800002168	g/TJ
2022	PAH-4	1A2b	LIGHT FUEL OIL (S=0.0915%)	2.800000000	g/TJ
2022	PAH-4	1A2b	OTHER HEAVY DISTILLATES	2.800000000	g/TJ
2022	PAH-4	1A2c	DIESEL OIL (S=001%)	2.800000048	g/TJ
2022	PAH-4	1A2c	GASOIL (FOR NON-ROAD USE)	2.799999944	g/TJ
2022	PAH-4	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.203894378	g/TJ
2022	PAH-4	1A2c	HEAVY FUEL OIL (S<0,1%)	2.800000102	g/TJ
2022	PAH-4	1A2c	HEAVY FUEL OIL (S<1%)	2.743358265	g/TJ
2022	PAH-4	1A2c	LIGHT FUEL OIL (S=0.0915%)	2.542836425	g/TJ
2022	PAH-4	1A2c	OTHER FOSSIL LIQUID	2.799999604	g/TJ
2022	PAH-4	1A2c	OTHER MEDIUM DISTILLATES	2.799999958	g/TJ
2022	PAH-4	1A2c	TALL PITCH AND OIL	2.783425143	g/TJ
2022	PAH-4	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	2.700000089	g/TJ
2022	PAH-4	1A2d	0-FIBRE/BIOLOGICAL SLURRY	2.157899967	g/TJ
2022	PAH-4	1A2d	ANIMAL-BASED FUELS	2.699999974	g/TJ
2022	PAH-4	1A2d	BARK	1.974002361	g/TJ
2022	PAH-4	1A2d	BIOLOGICAL SLURRY	2.500000938	g/TJ
2022	PAH-4	1A2d	CHIPS FROM ROUNDWOOD	2.700001323	g/TJ
2022	PAH-4	1A2d	COAL (S=1.0%)	0.012000026	g/TJ
2022	PAH-4	1A2d	CUTTER CHIPS ETC.	2.700000000	g/TJ
2022	PAH-4	1A2d	DEMOLITION WOOD	2.500000030	g/TJ
2022	PAH-4	1A2d	FOREST RESIDUE CHIPS	1.503791173	g/TJ
2022	PAH-4	1A2d	GASOIL (FOR NON-ROAD USE)	3.528469988	g/TJ
2022	PAH-4	1A2d	HEAVY FUEL OIL (normal, S>1%)	6.135627799	g/TJ
2022	PAH-4	1A2d	HEAVY FUEL OIL (S<0,1%)	4.981635838	g/TJ
2022	PAH-4	1A2d	HEAVY FUEL OIL (S<1%)	3.200641908	g/TJ
2022	PAH-4	1A2d	IMPREGNATED WOOD	2.500000000	g/TJ
2022	PAH-4	1A2d	INDUSTRIAL WASTE	2.500000060	g/TJ
2022	PAH-4	1A2d	LIGHT FUEL OIL (S=0.0915%)	2.817471054	g/TJ
2022	PAH-4	1A2d	METHANOL	8.491576874	g/TJ
2022	PAH-4	1A2d	MILLED PEAT	0.871423384	g/TJ
2022	PAH-4	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	2.700000000	g/TJ
2022	PAH-4	1A2d	OTHER FUEL	157.887518434	g/TJ
2022	PAH-4	1A2d	OTHER WOOD RESIDUE	2.700000000	g/TJ
2022	PAH-4	1A2d	PAPER	2.700000089	g/TJ
2022	PAH-4	1A2d	PLASTIC WASTE	2.499999181	g/TJ
2022	PAH-4	1A2d	RECOVERED WOOD	2.661420276	g/TJ
2022	PAH-4	1A2d	RECYCLED AND WASTE OILS	2.800000048	g/TJ
2022	PAH-4	1A2d	SAWDUST	2.312761508	g/TJ
2022	PAH-4	1A2d	SOLID RECOVERED FUEL (SRF)	2.500000006	g/TJ
2022	PAH-4	1A2d	TALL PITCH AND OIL	2.376590341	g/TJ
2022	PAH-4	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	49.691179462	g/TJ
2022	PAH-4	1A2d	WOOD RESIDUE CHIPS	1.150751173	g/TJ
2022	PAH-4	1A2d	WOOD STUMP CHIPS	2.699999905	g/TJ
2022	PAH-4	1A2e	ANIMAL FATS AND OILS	2.699999893	g/TJ
2022	PAH-4	1A2e	ANIMAL-BASED FUELS	2.700000000	g/TJ
2022	PAH-4	1A2e	BIO-FUEL OIL	2.799999986	g/TJ
2022	PAH-4	1A2e	CHIPS FROM ROUNDWOOD	2.700000011	g/TJ
2022	PAH-4	1A2e	COAL (S=1.0%)	0.011999976	g/TJ

2022	PAH-4	1A2e	COKE (S=1.0%)	0.011999974	g/TJ
2022	PAH-4	1A2e	FOREST RESIDUE CHIPS	2.699993956	g/TJ
2022	PAH-4	1A2e	GASOIL (FOR NON-ROAD USE)	2.800000692	g/TJ
2022	PAH-4	1A2e	HEAVY FUEL OIL (S<0,1%)	2.799999975	g/TJ
2022	PAH-4	1A2e	HEAVY FUEL OIL (S<1%)	2.799999980	g/TJ
2022	PAH-4	1A2e	LIGHT FUEL OIL (S=0.0915%)	2.799999951	g/TJ
2022	PAH-4	1A2e	MILLED PEAT	1.000000042	g/TJ
2022	PAH-4	1A2e	NAPHTHA	2.800000091	g/TJ
2022	PAH-4	1A2e	OTHER MEDIUM DISTILLATES	2.800000091	g/TJ
2022	PAH-4	1A2e	OTHER NON-FOSSIL SOLID	2.700000000	g/TJ
2022	PAH-4	1A2e	PEAT PELLETS AND BRIQUETTES	1.000000017	g/TJ
2022	PAH-4	1A2e	RECOVERED WOOD	2.700001191	g/TJ
2022	PAH-4	1A2e	SOD PEAT	0.999999992	g/TJ
2022	PAH-4	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	2.700000000	g/TJ
2022	PAH-4	1A2e	WOOD STUMP CHIPS	2.699994532	g/TJ
2022	PAH-4	1A2f	CHIPS FROM ROUNDWOOD	2.700000040	g/TJ
2022	PAH-4	1A2f	COAL (S=1.0%)	0.011999994	g/TJ
2022	PAH-4	1A2f	COKE (S=1.0%)	0.011999994	g/TJ
2022	PAH-4	1A2f	CUTTER CHIPS ETC.	2.699999971	g/TJ
2022	PAH-4	1A2f	DIESEL OIL (S=001%)	2.800000050	g/TJ
2022	PAH-4	1A2f	FOREST RESIDUE CHIPS	2.700000071	g/TJ
2022	PAH-4	1A2f	GASOIL (FOR NON-ROAD USE)	2.799999977	g/TJ
2022	PAH-4	1A2f	HEAVY FUEL OIL (S<0,1%)	2.800000000	g/TJ
2022	PAH-4	1A2f	HEAVY FUEL OIL (S<1%)	2.800000098	g/TJ
2022	PAH-4	1A2f	INDUSTRIAL WASTE	2.499999941	g/TJ
2022	PAH-4	1A2f	LIGHT FUEL OIL (S=0.0915%)	2.800001094	g/TJ
2022	PAH-4	1A2f	MOTOR GASOLINE (S=0.001%)	2.799999485	g/TJ
2022	PAH-4	1A2f	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	2.700000078	g/TJ
2022	PAH-4	1A2f	OTHER FOSSIL LIQUID	2.800000000	g/TJ
2022	PAH-4	1A2f	OTHER FUEL	2.699999904	g/TJ
2022	PAH-4	1A2f	OTHER HEAVY DISTILLATES	2.800000152	g/TJ
2022	PAH-4	1A2f	PETROLEUM COKE	0.012000000	g/TJ
2022	PAH-4	1A2f	PLASTIC WASTE	2.500001933	g/TJ
2022	PAH-4	1A2f	RECYCLED AND WASTE OILS	2.799997446	g/TJ
2022	PAH-4	1A2f	RUBBER WASTE	2.500001281	g/TJ
2022	PAH-4	1A2f	SAWDUST	2.700000080	g/TJ
2022	PAH-4	1A2f	SOLID RECOVERED FUEL (SRF)	2.500000000	g/TJ
2022	PAH-4	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	2.700002002	g/TJ
2022	PAH-4	1A2gvii	GASOIL (FOR NON-ROAD USE)	1.926864421	g/TJ
2022	PAH-4	1A2gvii	LIQUID GAS	1.739130435	g/TJ
2022	PAH-4	1A2gvii	MOTOR GASOLINE (S=0.001%)	2.131632639	g/TJ
2022	PAH-4	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	2.700000048	g/TJ
2022	PAH-4	1A2gviii	BARK	2.782649001	g/TJ
2022	PAH-4	1A2gviii	CHIPS FROM ROUNDWOOD	2.924158522	g/TJ
2022	PAH-4	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	2.699999948	g/TJ
2022	PAH-4	1A2gviii	CUTTER CHIPS ETC.	2.725380440	g/TJ
2022	PAH-4	1A2gviii	DEMOLITION WOOD	2.619619846	g/TJ
2022	PAH-4	1A2gviii	DIESEL OIL (S=001%)	2.799996881	g/TJ
2022	PAH-4	1A2gviii	FOREST RESIDUE CHIPS	2.866286024	g/TJ
2022	PAH-4	1A2gviii	FOREST RESIDUE CHIPS	2.700000000	g/TJ
2022	PAH-4	1A2gviii	GASOIL (FOR NON-ROAD USE)	2.846136734	g/TJ
2022	PAH-4	1A2gviii	HAZARDOUS WASTE	2.500006252	g/TJ
2022	PAH-4	1A2gviii	HEAVY FUEL OIL (S<0,1%)	2.800000052	g/TJ
2022	PAH-4	1A2gviii	HEAVY FUEL OIL (S<0,5%)	2.799998266	g/TJ
2022	PAH-4	1A2gviii	HEAVY FUEL OIL (S<1%)	2.800000000	g/TJ
2022	PAH-4	1A2gviii	IMPREGNATED WOOD	2.499999919	g/TJ

2022	PAH-4	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	2.800000098	g/TJ
2022	PAH-4	1A2gviii	MILLED PEAT	1.043668860	g/TJ
2022	PAH-4	1A2gviii	MUNICIPAL WASTE - unsorted	33.999976284	g/TJ
2022	PAH-4	1A2gviii	NAPHTHA	2.800000007	g/TJ
2022	PAH-4	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	2.700000044	g/TJ
2022	PAH-4	1A2gviii	OTHER HEAVY DISTILLATES	2.800000000	g/TJ
2022	PAH-4	1A2gviii	OTHER NON-FOSSIL SOLID	2.700004940	g/TJ
2022	PAH-4	1A2gviii	OTHER NON-FOSSIL SOLID	2.700000912	g/TJ
2022	PAH-4	1A2gviii	OTHER WASTE	2.499999980	g/TJ
2022	PAH-4	1A2gviii	OTHER WOOD RESIDUE	2.699997797	g/TJ
2022	PAH-4	1A2gviii	PEAT PELLETS AND BRIQUETTES	1.000000024	g/TJ
2022	PAH-4	1A2gviii	PLASTIC WASTE	2.499999999	g/TJ
2022	PAH-4	1A2gviii	RECOVERED WOOD	2.925854030	g/TJ
2022	PAH-4	1A2gviii	RECYCLED AND WASTE OILS	2.800000039	g/TJ
2022	PAH-4	1A2gviii	RENEWABLE DIESEL	2.800005933	g/TJ
2022	PAH-4	1A2gviii	SAWDUST	2.901496589	g/TJ
2022	PAH-4	1A2gviii	SAWDUST AND CUTTER CHIPS	2.700000029	g/TJ
2022	PAH-4	1A2gviii	SOD PEAT	0.999999859	g/TJ
2022	PAH-4	1A2gviii	SOLID RECOVERED FUEL (SRF)	2.629281919	g/TJ
2022	PAH-4	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	2.711092721	g/TJ
2022	PAH-4	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	2.699999622	g/TJ
2022	PAH-4	1A2gviii	WOOD RESIDUE CHIPS	2.702738239	g/TJ
2022	PAH-4	1A2gviii	WOOD STUMP CHIPS	2.960237112	g/TJ
2022	PAH-4	1A3bi	DIESEL OIL (S=0.001%)	2.179280955	g/TJ
2022	PAH-4	1A3bi	MOTOR GASOLINE (S=0.001%)	0.699849561	g/TJ
2022	PAH-4	1A3bii	DIESEL OIL (S=0.001%)	1.614597478	g/TJ
2022	PAH-4	1A3bii	MOTOR GASOLINE (S=0.001%)	0.538237241	g/TJ
2022	PAH-4	1A3biii	DIESEL OIL (S=0.001%)	2.219007431	g/TJ
2022	PAH-4	1A3biv	DIESEL OIL (S=0.001%)	2.110945160	g/TJ
2022	PAH-4	1A3biv	MOTOR GASOLINE (S=0.001%)	0.927260198	g/TJ
2022	PAH-4	1A3c	GASOIL (FOR NON-ROAD USE)	1.926193727	g/TJ
2022	PAH-4	1A3dii	DIESEL OIL (S=0.001%)	0.652649244	g/TJ
2022	PAH-4	1A3dii	GASOIL (FOR NON-ROAD USE)	0.540398124	g/TJ
2022	PAH-4	1A3dii	HEAVY FUEL OIL (normal, S>1%)	1.575962425	g/TJ
2022	PAH-4	1A4ai	FOREST WOODFUEL	0.500000000	g/TJ
2022	PAH-4	1A4ai	GASOIL (FOR NON-ROAD USE)	2.800000655	g/TJ
2022	PAH-4	1A4ai	HEAVY FUEL OIL (S<1%)	2.800000000	g/TJ
2022	PAH-4	1A4ai	LIGHT FUEL OIL (S=0.0915%)	2.800000000	g/TJ
2022	PAH-4	1A4ai	NAPHTHA	2.800004062	g/TJ
2022	PAH-4	1A4ai	SOD PEAT	1.000000000	g/TJ
2022	PAH-4	1A4aai	GASOIL (FOR NON-ROAD USE)	1.926864421	g/TJ
2022	PAH-4	1A4aai	MOTOR GASOLINE (S=0.001%)	2.131632639	g/TJ
2022	PAH-4	1A4bi	FOREST WOODFUEL	350.617785384	g/TJ
2022	PAH-4	1A4bi	HEAVY FUEL OIL (S<1%)	2.800000000	g/TJ
2022	PAH-4	1A4bi	LIGHT FUEL OIL (S=0.0915%)	2.800000000	g/TJ
2022	PAH-4	1A4bi	PARAFFIN	2.800000000	g/TJ
2022	PAH-4	1A4bi	SOD PEAT	1.000000000	g/TJ
2022	PAH-4	1A4bii	GASOIL (FOR NON-ROAD USE)	1.926864421	g/TJ
2022	PAH-4	1A4bii	MOTOR GASOLINE (S=0.001%)	2.131632639	g/TJ
2022	PAH-4	1A4ci	ANIMAL-BASED FUELS	2.699999960	g/TJ
2022	PAH-4	1A4ci	CHIPS FROM ROUNDWOOD	2.700000073	g/TJ
2022	PAH-4	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	2.699999903	g/TJ
2022	PAH-4	1A4ci	COAL (S=1.0%)	0.012000000	g/TJ
2022	PAH-4	1A4ci	FOREST WOODFUEL	0.500000000	g/TJ
2022	PAH-4	1A4ci	HEAVY FUEL OIL (S<1%)	2.800000000	g/TJ
2022	PAH-4	1A4ci	LIGHT FUEL OIL (S=0.0915%)	2.800000000	g/TJ

2022	PAH-4	1A4ci	OTHER NON-FOSSIL SOLID	2.699999952	g/TJ
2022	PAH-4	1A4ci	RECOVERED WOOD	2.699999893	g/TJ
2022	PAH-4	1A4ci	SOD PEAT	1.000000000	g/TJ
2022	PAH-4	1A4ci	WOOD RESIDUE CHIPS	2.699999911	g/TJ
2022	PAH-4	1A4cii	GASOIL (FOR NON-ROAD USE)	1.926864421	g/TJ
2022	PAH-4	1A4cii	MOTOR GASOLINE (S=0.001%)	2.131632639	g/TJ
2022	PAH-4	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.553780696	g/TJ
2022	PAH-4	1A5a	FOREST WOODFUEL	2.700000000	g/TJ
2022	PAH-4	1A5a	LIGHT FUEL OIL (S=0.0915%)	2.852175217	g/TJ
2022	PAH-4	1A5a	OTHER PETROLEUM PRODUCTS	2.800000000	g/TJ

#### HCB Implied emission factors in Finnish air pollutant inventory for 2022

2022	HCB	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000005000	kg/TJ
2022	HCB	1A1a	ANTHRACITE	0.000000007	kg/TJ
2022	HCB	1A1a	BARK	0.000005000	kg/TJ
2022	HCB	1A1a	CHIPS FROM ROUNDWOOD	0.000005000	kg/TJ
2022	HCB	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000005000	kg/TJ
2022	HCB	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.000005000	kg/TJ
2022	HCB	1A1a	COAL (S=1.0%)	0.000000007	kg/TJ
2022	HCB	1A1a	CUTTER CHIPS ETC.	0.000005000	kg/TJ
2022	HCB	1A1a	DEMOLITION WOOD	0.000005000	kg/TJ
2022	HCB	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.000005000	kg/TJ
2022	HCB	1A1a	FOREST RESIDUE CHIPS	0.000005000	kg/TJ
2022	HCB	1A1a	FOREST RESIDUE CHIPS	0.000005000	kg/TJ
2022	HCB	1A1a	OTHER NON-FOSSIL SOLID	0.000005000	kg/TJ
2022	HCB	1A1a	OTHER NON-FOSSIL SOLID	0.000005000	kg/TJ
2022	HCB	1A1a	OTHER NON-FOSSIL SOLID	0.000005000	kg/TJ
2022	HCB	1A1a	OTHER WOOD RESIDUE	0.000005000	kg/TJ
2022	HCB	1A1a	PAPER	0.000005000	kg/TJ
2022	HCB	1A1a	RECOVERED WOOD	0.000005000	kg/TJ
2022	HCB	1A1a	SAWDUST	0.000005000	kg/TJ
2022	HCB	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000005000	kg/TJ
2022	HCB	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000005000	kg/TJ
2022	HCB	1A1a	WOOD RESIDUE CHIPS	0.000005000	kg/TJ
2022	HCB	1A1a	WOOD STUMP CHIPS	0.000005000	kg/TJ
2022	HCB	1A2a	COKE (S=1.0%)	0.000000620	kg/TJ
2022	HCB	1A2a	OTHER FOSSIL SOLID	0.000000620	kg/TJ
2022	HCB	1A2a	WOOD RESIDUE CHIPS	0.000005000	kg/TJ
2022	HCB	1A2b	COAL (S=1.0%)	0.000000620	kg/TJ
2022	HCB	1A2b	COKE (S=1.0%)	0.000000620	kg/TJ
2022	HCB	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000005000	kg/TJ
2022	HCB	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000005000	kg/TJ
2022	HCB	1A2d	BARK	0.000005000	kg/TJ
2022	HCB	1A2d	BIOLOGICAL SLURRY	0.000005000	kg/TJ
2022	HCB	1A2d	CHIPS FROM ROUNDWOOD	0.000005000	kg/TJ
2022	HCB	1A2d	COAL (S=1.0%)	0.000000620	kg/TJ
2022	HCB	1A2d	CUTTER CHIPS ETC.	0.000005000	kg/TJ
2022	HCB	1A2d	DEMOLITION WOOD	0.000005000	kg/TJ
2022	HCB	1A2d	FOREST RESIDUE CHIPS	0.000002785	kg/TJ
2022	HCB	1A2d	OTHER WOOD RESIDUE	0.000005000	kg/TJ
2022	HCB	1A2d	PAPER	0.000005000	kg/TJ
2022	HCB	1A2d	RECOVERED WOOD	0.000005000	kg/TJ
2022	HCB	1A2d	SAWDUST	0.000005000	kg/TJ
2022	HCB	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000005000	kg/TJ
2022	HCB	1A2d	WOOD RESIDUE CHIPS	0.000005000	kg/TJ

2022	HCB	1A2d	WOOD STUMP CHIPS	0.000005000	kg/TJ
2022	HCB	1A2e	CHIPS FROM ROUNDWOOD	0.000005000	kg/TJ
2022	HCB	1A2e	COAL (S=1.0%)	0.000000620	kg/TJ
2022	HCB	1A2e	COKE (S=1.0%)	0.000000620	kg/TJ
2022	HCB	1A2e	FOREST RESIDUE CHIPS	0.000005000	kg/TJ
2022	HCB	1A2e	OTHER NON-FOSSIL SOLID	0.000005000	kg/TJ
2022	HCB	1A2e	RECOVERED WOOD	0.000005000	kg/TJ
2022	HCB	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000005000	kg/TJ
2022	HCB	1A2e	WOOD STUMP CHIPS	0.000005000	kg/TJ
2022	HCB	1A2f	CHIPS FROM ROUNDWOOD	0.000005000	kg/TJ
2022	HCB	1A2f	COAL (S=1.0%)	0.000000620	kg/TJ
2022	HCB	1A2f	COKE (S=1.0%)	0.000000620	kg/TJ
2022	HCB	1A2f	CUTTER CHIPS ETC.	0.000005000	kg/TJ
2022	HCB	1A2f	FOREST RESIDUE CHIPS	0.000005000	kg/TJ
2022	HCB	1A2f	SAWDUST	0.000005000	kg/TJ
2022	HCB	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000005000	kg/TJ
2022	HCB	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000005000	kg/TJ
2022	HCB	1A2gviii	BARK	0.000004220	kg/TJ
2022	HCB	1A2gviii	CHIPS FROM ROUNDWOOD	0.000005000	kg/TJ
2022	HCB	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.000005000	kg/TJ
2022	HCB	1A2gviii	CUTTER CHIPS ETC.	0.000005000	kg/TJ
2022	HCB	1A2gviii	DEMOLITION WOOD	0.000005000	kg/TJ
2022	HCB	1A2gviii	FOREST RESIDUE CHIPS	0.000005000	kg/TJ
2022	HCB	1A2gviii	FOREST RESIDUE CHIPS	0.000005000	kg/TJ
2022	HCB	1A2gviii	OTHER NON-FOSSIL SOLID	0.000005000	kg/TJ
2022	HCB	1A2gviii	OTHER NON-FOSSIL SOLID	0.000005000	kg/TJ
2022	HCB	1A2gviii	OTHER WOOD RESIDUE	0.000005000	kg/TJ
2022	HCB	1A2gviii	RECOVERED WOOD	0.000005000	kg/TJ
2022	HCB	1A2gviii	SAWDUST	0.000005000	kg/TJ
2022	HCB	1A2gviii	SAWDUST AND CUTTER CHIPS	0.000001350	kg/TJ
2022	HCB	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000005000	kg/TJ
2022	HCB	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000005000	kg/TJ
2022	HCB	1A2gviii	WOOD RESIDUE CHIPS	0.000005412	kg/TJ
2022	HCB	1A2gviii	WOOD STUMP CHIPS	0.000005000	kg/TJ
2022	HCB	1A3bi	DIESEL OIL (S=001%)	0.000001703	kg/TJ
2022	HCB	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000001603	kg/TJ
2022	HCB	1A3bi	NATURAL GAS	0.000002414	kg/TJ
2022	HCB	1A3bii	DIESEL OIL (S=001%)	0.000001703	kg/TJ
2022	HCB	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000001599	kg/TJ
2022	HCB	1A3bii	NATURAL GAS	0.000002414	kg/TJ
2022	HCB	1A3biii	DIESEL OIL (S=001%)	0.000001703	kg/TJ
2022	HCB	1A3biii	NATURAL GAS	0.000002414	kg/TJ
2022	HCB	1A3biv	DIESEL OIL (S=001%)	0.000001649	kg/TJ
2022	HCB	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000001599	kg/TJ
2022	HCB	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000001880	kg/TJ
2022	HCB	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.000003447	kg/TJ
2022	HCB	1A4ai	FOREST WOODFUEL	0.000005000	kg/TJ
2022	HCB	1A4bi	FOREST WOODFUEL	0.000005000	kg/TJ
2022	HCB	1A4ci	COAL (S=1.0%)	0.000019608	kg/TJ
2022	HCB	1A4ci	FOREST WOODFUEL	0.000005000	kg/TJ
2022	HCB	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000001926	kg/TJ
2022	HCB	1A5a	FOREST WOODFUEL	0.000001000	kg/TJ
2022	HCB	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000000124	kg/TJ

**PCB Implied emission factors in Finnish air pollutant inventory for 2022**

2022	PCB	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.003500000	g/TJ
2022	PCB	1A1a	ANTHRACITE	0.000003300	g/TJ
2022	PCB	1A1a	BARK	0.003500000	g/TJ
2022	PCB	1A1a	CHIPS FROM ROUNDWOOD	0.003500000	g/TJ
2022	PCB	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.003500000	g/TJ
2022	PCB	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.003500000	g/TJ
2022	PCB	1A1a	COAL (S=1.0%)	0.000003300	g/TJ
2022	PCB	1A1a	CUTTER CHIPS ETC.	0.003500000	g/TJ
2022	PCB	1A1a	DEMOLITION WOOD	0.003500000	g/TJ
2022	PCB	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.003500000	g/TJ
2022	PCB	1A1a	FOREST RESIDUE CHIPS	0.003500000	g/TJ
2022	PCB	1A1a	FOREST RESIDUE CHIPS	0.003500000	g/TJ
2022	PCB	1A1a	OTHER NON-FOSSIL SOLID	0.003500000	g/TJ
2022	PCB	1A1a	OTHER NON-FOSSIL SOLID	0.003500000	g/TJ
2022	PCB	1A1a	OTHER NON-FOSSIL SOLID	0.003500000	g/TJ
2022	PCB	1A1a	OTHER WOOD RESIDUE	0.003500000	g/TJ
2022	PCB	1A1a	PAPER	0.003500000	g/TJ
2022	PCB	1A1a	RECOVERED WOOD	0.003500000	g/TJ
2022	PCB	1A1a	SAWDUST	0.003500000	g/TJ
2022	PCB	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.003500000	g/TJ
2022	PCB	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.003500000	g/TJ
2022	PCB	1A1a	WOOD RESIDUE CHIPS	0.003500000	g/TJ
2022	PCB	1A1a	WOOD STUMP CHIPS	0.003500000	g/TJ
2022	PCB	1A2a	COKE (S=1.0%)	0.170000000	g/TJ
2022	PCB	1A2a	OTHER FOSSIL SOLID	0.170000000	g/TJ
2022	PCB	1A2a	WOOD RESIDUE CHIPS	0.000060000	g/TJ
2022	PCB	1A2b	COAL (S=1.0%)	0.170000000	g/TJ
2022	PCB	1A2b	COKE (S=1.0%)	0.170000000	g/TJ
2022	PCB	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000060000	g/TJ
2022	PCB	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000060000	g/TJ
2022	PCB	1A2d	BARK	0.000060000	g/TJ
2022	PCB	1A2d	BIOLOGICAL SLURRY	0.000060000	g/TJ
2022	PCB	1A2d	CHIPS FROM ROUNDWOOD	0.000060000	g/TJ
2022	PCB	1A2d	COAL (S=1.0%)	0.170000000	g/TJ
2022	PCB	1A2d	CUTTER CHIPS ETC.	0.000060000	g/TJ
2022	PCB	1A2d	DEMOLITION WOOD	0.000060000	g/TJ
2022	PCB	1A2d	FOREST RESIDUE CHIPS	0.000033418	g/TJ
2022	PCB	1A2d	OTHER WOOD RESIDUE	0.000060000	g/TJ
2022	PCB	1A2d	PAPER	0.000060000	g/TJ
2022	PCB	1A2d	RECOVERED WOOD	0.000060000	g/TJ
2022	PCB	1A2d	SAWDUST	0.000060000	g/TJ
2022	PCB	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000060000	g/TJ
2022	PCB	1A2d	WOOD RESIDUE CHIPS	0.000060000	g/TJ
2022	PCB	1A2d	WOOD STUMP CHIPS	0.000060000	g/TJ
2022	PCB	1A2e	CHIPS FROM ROUNDWOOD	0.000060000	g/TJ
2022	PCB	1A2e	COAL (S=1.0%)	0.170000000	g/TJ
2022	PCB	1A2e	COKE (S=1.0%)	0.170000000	g/TJ
2022	PCB	1A2e	FOREST RESIDUE CHIPS	0.000060000	g/TJ
2022	PCB	1A2e	OTHER NON-FOSSIL SOLID	0.000060000	g/TJ
2022	PCB	1A2e	RECOVERED WOOD	0.000060000	g/TJ
2022	PCB	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000060000	g/TJ
2022	PCB	1A2e	WOOD STUMP CHIPS	0.000060000	g/TJ
2022	PCB	1A2f	CHIPS FROM ROUNDWOOD	0.000060000	g/TJ
2022	PCB	1A2f	COAL (S=1.0%)	0.170000000	g/TJ
2022	PCB	1A2f	COKE (S=1.0%)	0.170000000	g/TJ
2022	PCB	1A2f	CUTTER CHIPS ETC.	0.000060000	g/TJ

2022	PCB	1A2f	FOREST RESIDUE CHIPS	0.000060000	g/TJ
2022	PCB	1A2f	SAWDUST	0.000060000	g/TJ
2022	PCB	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000060000	g/TJ
2022	PCB	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000060000	g/TJ
2022	PCB	1A2gviii	BARK	0.000050636	g/TJ
2022	PCB	1A2gviii	CHIPS FROM ROUNDWOOD	0.000060000	g/TJ
2022	PCB	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.000060000	g/TJ
2022	PCB	1A2gviii	CUTTER CHIPS ETC.	0.000060000	g/TJ
2022	PCB	1A2gviii	DEMOLITION WOOD	0.000060000	g/TJ
2022	PCB	1A2gviii	FOREST RESIDUE CHIPS	0.000060000	g/TJ
2022	PCB	1A2gviii	FOREST RESIDUE CHIPS	0.000060000	g/TJ
2022	PCB	1A2gviii	OTHER NON-FOSSIL SOLID	0.000060000	g/TJ
2022	PCB	1A2gviii	OTHER NON-FOSSIL SOLID	0.000060000	g/TJ
2022	PCB	1A2gviii	OTHER WOOD RESIDUE	0.000060000	g/TJ
2022	PCB	1A2gviii	RECOVERED WOOD	0.000060000	g/TJ
2022	PCB	1A2gviii	SAWDUST	0.000060000	g/TJ
2022	PCB	1A2gviii	SAWDUST AND CUTTER CHIPS	0.000016196	g/TJ
2022	PCB	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000060000	g/TJ
2022	PCB	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000060000	g/TJ
2022	PCB	1A2gviii	WOOD RESIDUE CHIPS	0.000064944	g/TJ
2022	PCB	1A2gviii	WOOD STUMP CHIPS	0.000060000	g/TJ
2022	PCB	1A3bi	DIESEL OIL (S=001%)	0.000002141	g/TJ
2022	PCB	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000000862	g/TJ
2022	PCB	1A3bii	DIESEL OIL (S=001%)	0.000002679	g/TJ
2022	PCB	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000002261	g/TJ
2022	PCB	1A3biii	DIESEL OIL (S=001%)	0.000000201	g/TJ
2022	PCB	1A3biv	DIESEL OIL (S=001%)	0.000010423	g/TJ
2022	PCB	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000002001	g/TJ
2022	PCB	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000892832	g/TJ
2022	PCB	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.014035915	g/TJ
2022	PCB	1A4ai	FOREST WOODFUEL	0.060000000	g/TJ
2022	PCB	1A4ai	HEAVY FUEL OIL (S<1%)	0.000087591	g/TJ
2022	PCB	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.000083842	g/TJ
2022	PCB	1A4ai	SOD PEAT	0.000055784	g/TJ
2022	PCB	1A4bi	FOREST WOODFUEL	0.060000000	g/TJ
2022	PCB	1A4bi	HEAVY FUEL OIL (S<1%)	0.000087591	g/TJ
2022	PCB	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.000084309	g/TJ
2022	PCB	1A4bi	SOD PEAT	0.000073171	g/TJ
2022	PCB	1A4ci	COAL (S=1.0%)	0.000176471	g/TJ
2022	PCB	1A4ci	FOREST WOODFUEL	0.060000000	g/TJ
2022	PCB	1A4ci	HEAVY FUEL OIL (S<1%)	0.000087591	g/TJ
2022	PCB	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.000014901	g/TJ
2022	PCB	1A4ci	SOD PEAT	0.000071346	g/TJ
2022	PCB	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000914942	g/TJ

## **Annex 2**

### **Emission factor tables for point sources**

## Nitrogen oxides, NO<sub>x</sub>

### Point source emission factors for > 50 MW facilities

Updated September 2006

Source: Päästötietojen tuottamismenetelmät - Energiantuotanto (10.6.2004) (www.ymparisto.fi > Yritykset ja yhteisöt > Päästöt > Päästökisterit > Päästötiedon tuottaminen > Aineistoa päästöjen määrittämiseen > Energiantuotanto). in Finnish

NO <sub>x</sub> -emission factors	15-50 MW		
	Fuel	Combustion technology	Emission factor mg/MJ
Coal >50%	All	170	1
Peat >50%	Grate	200	1
	BFB	160	1
	CFB	120	1
	Gasification	220	1
Wood >50%	Grate	140	1
	BFB	120	1
	CFB	100	1
	Gasification	170	1
Mixed burning. no fuel more than 50 %	Grate	200	1
	BFB	160	1
	CFB	120	1
	Gasification	220	1
Natural gas	Burner	70	1
Heavy fuel oil	Burner	180	1
Light fuel oil	Burner	100	1
Gas turbines. natural gas		150	1
Gas motor (SG)/ double fuel (DF)		160	1
Gas diesel motor (GD), Gas		1500	1
Oil diesel motor (CI)		2000	1

Source:

1. Jalovaara, J.; Aho J.; Hietamäki E.; Hyytiä V.; Paras käytettävissä oleva tekniikka (BAT) 5-50 MW:n polttolaitoksissa Suomessa, Suomen Ympäristö 649, Suomen ympäristökeskus, Helsinki 2003 (In Finnish)

- Tables pp. 16-19. Tyypilliset ominaispäästökertoimet pienissä polttolaitoksissa

## NMVOC, non-methane volatile organic compounds

### Point source emission factors for > 50 MW facilities

Updated September 2006

Source: Päästötietojen tuottamismenetelmät – Energiantuotanto (10.6.2004)  
(www.ymparisto.fi > Yritykset ja yhteisöt > Päästöt > Päästörekisterit)  
> Päästötiedon tuottaminen > Aineistoa päästöjen määrittämiseen > Energiantuotanto). in Finnish

<b>Fuel</b>	<b>Emission factor mg/MJ</b>	<b>Source</b>
Coal	1	1
Natural gas	1	1
Heavy fuel oil	1	1
Light fuel oil	1	1
Peat	2	1
Wood	2	1
Peat fluidized bed	3	1
Wood. fluidized bed	3	1

Source:

1. Expert estimation based on national measurement data

## Carbon monoxide, CO

### Point source emission factors for > 50 MW facilities

Updated September 2006

Source: Päästötietojen tuottamismenetelmät - Energiantuotanto (10.6.2004)

(www.ymparisto.fi > Yritykset ja yhteisöt > Päästöt > Päästörekkisterit > Päästötiedon tuottaminen

> Aineistoa päästöjen määrittäminen > Energiantuotanto). in Finnish

Fuel	Combustion technology	Capacity			
		15-50 MW	50-150 MW	150-300 MW	>300 MW
		Emission factor			
		mg/MJ	mg/MJ	mg/MJ	mg/MJ
Coal >80%	Burning			5	5
	Grate	30	30	5	5
	Fluidized bed	30	30	5	5
Coal mixed burning 50-80%	All	30	30	10	10
Peat >80%	Grate	100	30	10	10
	Fluidized bed	100	30	10	10
	Other	30	10	10	10
Peat mixed burning 50-80%	Grate	100	30	10	10
	Fluidized bed	100	30	10	10
	Other	70	30	10	10
Wood >80%	Grate	250	250	150	150
	Fluidized bed	150	150	150	150
	Other	250	250	150	150
Wood mixed burning 50-80%	Grate	250	250	70	70
	Fluidized bed	150	150	70	70
	Other	150	150	70	70
Mixed burning no fuel more than 50 %	Grate	100	50	30	30
	Fluidized bed	100	50	30	30
	Other	100	50	30	30
Natural gas	Burning	20	20	20	20
Oil	Burning	20	20	20	20
Gas turbines. natural gas		20	20	20	20

## Polychlorinated dioxins and furans, PCDD/F

### Point source emission factors for > 50 MW facilities

Updated September 2006

Source: Päästötietojen tuottamismenetelmät - Energiantuotanto (10.6.2004) (www.ymparisto.fi > Yritykset ja yhteisöt > Päästöt > Päästörekisterit > Päästötiedon tuottaminen > Aineistoa päästöjen määrittämiseen > Energiantuotanto). in Finnish

Fuel	PCDD/F-emission factors	
	mg I-TEQ/TJ	Source
Coal	0.004	1*
Heavy fuel oil	0.0004	1*
Light fuel oil	0.0005	1*
Wood	0.021	2*
Peat	0.0175	3
Natural gas	0.0005	4

Sources:

1. Expert estimate based on UNEP (1999). Dioxin and furan inventories. National and regional emissions of PCDD/PCDF. May 1999 (Germany: Investigation of emissions)

2. Expert estimate based on USEPA (1997) Locating and Estimating Air Emissions from Sources of Dioxins and Furans. USEPA. May 1997. Office of Air Quality Planning And Standards

3. Ruuskanen (2000). Mittaukset; Dioksiineja vähentävät ympäristönsuojelukeinot 1990-luvulla ja uudet mahdollisuudet. Juhani Ruuskanen. Ympäristö- ja terveystieteitä 3:2000. In Finnish

4. UNEP (2003). UNEP/POPS/INC.7/INF/14: Standardized Toolkit for Identification and quantification of Dioxin and Furan Releases. 1st edition. May 2003.

[www.pops.int](http://www.pops.int);

(based on measurements in Belgium, Germany and Switzerland)

**Polyaromatic hydrocarbons , PAH-4  
expressed as the sum of benzo(a)pyrene. benzo(b)fluoranthene,  
benzo(k).fluoranthene and indeno(1.2.3.-cd)pyrene**

**Point source emission factors for > 50 MW facilities**

Updated September 2006

Source: Päästötietojen tuottamismenetelmät - Energiantuotanto (10.6.2004)  
(www.ymparisto.fi > Yritykset ja yhteisöt > Päästöt > Päästörekitterit > Päästötiedon  
tuottaminen > Aineistoa päästöjen määrittämiseen > Energiantuotanto). in Finnish

<b>PAH-4 expressed as the sum of benzo(a)pyrene. benzo(b)fluoranthene. benzo(k)fluoranthene and indeno(1.2.3.-cd)pyrene</b>	<b>Emission factor</b>		
	<b>g/t</b>	<b>g/TJ</b>	<b>Source</b>
<b>Fuel</b>			
Coal	0.0003	0.012	1
Heavy fuel oil	0.12	2.8	2
Light fuel oi	0.12	2.8	2
Wood	0.03	2.7	3
Peat		1	4

Sources:

1. Expert estimate based on EEA(2003) Emission Inventory Guidebook
2. Expert estimate based on UBA (1998). Investigation of emissions and abatement measures for persistent organic pollutants in the FRG. Research Report 295 44 365. UBA-\*FB 98-115/e. 75/98
3. Expert estimate based on TNO (1995). Technical paper to the OSPARCOM-HELCOM-UNECE emission Inventory of Heavy Metals and POP. TNO-Report TNO-MEP - 95/247:
4. Expert estimate based on KTM (1988). Energiatuotannon kokonaispäästöt Suomessa, KTM. Energiaosasto. D:162.1988. In Finnish

## Heavy metals

Arsenic (As), Mercury (Hg), Cadmium (Cd), Chrome (Cr), Copper (Cu), Nickel (Ni), Lead (Pb) and Zinc (Zn)

### Point source emission factors for > 50 MW facilities

Updated September 2006

Source: Päästö tietojen tuottamismenetelmät - Energiantuotanto (10.6.2004) (www.ymparisto.fi > Yritykset ja yhteisöt > Päästöt > Päästörekisterit > Päästö tiedon tuottaminen > Aineistoa päästöjen määrittämiseen > Energiantuotanto). in Finnish

Fuel	Emission factors [ $\mu\text{g}/\text{MJ}$ ]				
	no abatement	cyclone	washer	electric filter	electric filter + desulphuration
<b>Arsenic (As)</b>					
Heavy fuel oil	2	1	-	-	
Peat	81	33	11	0.5	
Coal	130	26	17	7.8	1.0
Wood	1	0.3	0.13	0.1	
<b>Mercury (Hg)</b>					
Heavy fuel oil	0.03	0.03	-	-	
Peat	2.6	2.6	2.3	1.3	
Coal	3.7	3.7	3.3	1.4	0.95
Wood	0.5	0.5	0.45	0.5	
<b>Cadmium (Cd)</b>					
Heavy fuel oil	0.3	0.2	-	-	
Peat	2.8	1.1	0.4	0.02	
Coal	18	3.6	2.3	0.2	0.09
Wood	5	2	0.65	0.5	
<b>Chrome (Cr)</b>					
Heavy fuel oil	1	0.5	-	-	
Peat	140	56	18	0.8	
Coal	1000	200	130	5	1.5
Wood	35	9	4.5	2	
<b>Copper (Cu)</b>					
Heavy fuel oil	2.5	1	-	-	
Peat	220	89	29	1.3	
Coal	350	70	45	4	1.8
Wood	51	12.75	12.75	5	

Fuel	Emission factors [ $\mu\text{g}/\text{MJ}$ ]				
	no abatement	cyclone	washer	electric filter	electric filter + desulphuration

### Nickel (Ni)

Fuel	Emission factors [ $\mu\text{g}/\text{MJ}$ ]				
	Heavy fuel oil	300	150	-	-
Peat	140	58	19	0.8	
Coal	800	160	100	4	1
Wood	30	8.5	3.9	2	

### Lead (Pb)

Fuel	Emission factors [ $\mu\text{g}/\text{MJ}$ ]				
	Heavy fuel oil	25	10	-	-
Peat	170	68	22	1	
Coal	790	160	100	3.9	1.2
Wood	45	12	6	3.4	

### Zinc (Zn)

Fuel	Emission factors [ $\mu\text{g}/\text{MJ}$ ]				
	Heavy fuel oil	12	6	-	-
Peat	330	130	43	8	
Coal <sup>(1)</sup>	1500	300	195	84	12
Wood	700	175	175	54	

(1 large variation between facilities although factors are based on measurements)

### Vanadium (V)

Fuel	Emission factors [ $\mu\text{g}/\text{MJ}$ ]				
	Heavy fuel oil	1000	450	-	-
Peat	180	74	24	1.1	
Coal	1400	270	180	6.9	3.1
Wood	100	25	13	9	

Sources:

- "NOT ABATED" emission factors are based on expert estimation on the measured heavy metal concentrations in fuels and on a coarse division between the bottom and fly ash .

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## **Annex 3**

### **Basis of Estimation of Emissions from Transport**

Table F4: Basis for estimating emissions from mobile sources.

NFR09 code	Description	Fuel sold	Fuel used	Comment
1 A 3 a i (i)	International aviation (LTO)	x		
1 A 3 a i (ii)	International aviation (Cruise)	x		
1 A 3 a ii (i)	1 A 3 a ii Civil aviation (Domestic, LTO)	x		
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	x		
<b>1A3b</b>	<b>Road transport</b>			
1A3c	Railways	x		
1A3di (i)	International maritime navigation	x		
1A3di (ii)	International inland waterways	x		
1A3dii	National navigation	x		
1A4ci	Agriculture	x		
1A4cii	Off-road vehicles and other machinery	x		
1A4ciii	National fishing	x		
1 A 5 b	Other mobile (Including military)	x		

## **Annex 4**

### **Net caloric values and sulphur contents of fuels**

## Net caloric values by fuel

Fuels	NCV	Unit	Source of emission factor
<b>Liquid fuels</b>			
Town gas	16.9	GJ/1000 m3	Neste 1993
Refinery gas (+ other gases)	49 (45-55)	GJ/t	Plant-specific
LPG (liquefied petroleum gas)	46.2	GJ/t	Neste/ET2004
Naphta	44.3	GJ/t	EE
Motor gasoline	43	GJ/t	VTT/Liisa Model/Neste
Aviation gasoline	43.7	GJ/t	EE/Neste
Jet fuel	43.3	GJ/t	EE /Fortum 2002
Other kerosenes (vaporising oil, lamp kerosene)	43.1	GJ/t	EE/IPCC1996
Diesel oil	42.8	GJ/t	VTT/Liisa Model/Neste
Gasoil (light fuel oil, heating fuel oil)	42.7	GJ/t	Neste/EE
Gasoil (for non-road use)	42.8	GJ/t	EE (same as diesel oil)
Residual fuel oil (heavy fuel oil), low sulphur	41.1	GJ/t	Neste/EE
Residual fuel oil (heavy fuel oil), normal	40.5	GJ/t	Neste/EE
Other residual fuel oil (heavy bottom oil)	40.2	GJ/t	Neste/EE
Petroleum coke	33.5 (20-36)	GJ/t	Plant-specific
Recycled waste oil	41	GJ/t	EE (=RFO)
Other petroleum products	35 (30-47)	GJ/t	EE (=RFO)
<b>Solid fuels</b>			
Anthracite	33.5	GJ/t	IPCC1996
Hard coal (bituminous)	25.5 (21-32)	GJ/t	StatFi 2005
Coal briquettes	30	GJ/t	EE
Coal tar	36.5	GJ/t	Plant-specific
Coke	29.3 (25-35)	GJ/t	IPCC1996
Coke oven gas	16.7	GJ/1000 m3	Plant-specific
Blast furnace gas	11.2-11.5 3.6	GJ/1000 m3	Plant-specific
<b>Gaseous fuels</b>			
Natural gas	36	GJ/1000 m3	Gasum 2005
Gasified solid waste*	13.3 (7-30)	GJ/1000 m3	EE
<b>Biomass fuels</b>			
Wood fuels (solid, includes e.g. firewood, bark, chips, sawdust and other industrial wood residues, recycled wood, pellets and briquettes)	7.8–16	GJ/t	IPCC1996
Black and sulphite liquors	7.3–15	GJ/t	IPCC1996
Other by-products from wood processing industry (includes e.g. pine oil and tar, methanol, fibrous sludge, waste paper, stink gas, etc.)	3–37 20	GJ/t GJ/1000 m3	IPCC1996, VTT2045, EE
Plant and animal residues	10-35	GJ/t	EE (=wood)
Biogas (landfill gas, biogas from wastewater treatment, industrial biogas and other biogas)	15–20.5	GJ/1000 m3	EE
Hydrogen	10.8	GJ/1000 m3	
<b>Other fuels, peat</b>			
Peat (milled)	10.1	GJ/t	VTT 2003
Peat (sod peat)	12.3	GJ/t	VTT 2003
Peat (pellets and briquettes)	20.9	GJ/t	VTT 2003
<b>Other fuels, wastes etc.</b>			
Mixed fuels* (REF, RDF, PDF, MSW)	10–21	GJ/t	StatFi 2004

Demolition wood*	8-15	GJ/t	StatFi 2004
Impregnated wood*	12	GJ/t	StatFi 2004
De-inking sludge*	4	GJ/t	EE
Other residues and by-products	30	GJ/t	EE
Plastics waste	33 (25-40)	GJ/t	EE
Rubber waste	33	GJ/t	StatFi 2004
Hazardous waste	15 (10-15)	GJ/t	Ekokem 2004
Other non-specified waste (industrial waste, etc.)	15-30	GJ/t	EE

\* Mixed fuels: contains fossil and non-fossil carbon; the CO<sub>2</sub> emission factor refers only to the fossil fraction of total energy content.

Sources:

EE: expert estimation Kari Grönfors, Statistics Finland

Neste 1993: Composition and properties of natural gas and liquefied petroleum gas (in Finnish)

Neste: product data sheets, personal communications

VTT/Liisa Model: Calculation system of road traffic emissions

StatFi 2004: Mixed fuels in Finland's greenhouse gas inventory and on compilation of the energy statistics (Masters Thesis of Minna Jokinen)

StatFi 2005: Research of Teemu Oinonen (not published, see Annex 3)

Ekokem 2004: Environmental report 2004

Gasum 2005: personal communication

VTT2045: Properties of fuels used in Finland, VTT 2000

Fortum 2002: Composition of kerosenes

VTT 2003: Vesterinen 2003

The default NCVs are practically constant over time. There are some exceptions concerning plant specific fuels like refinery gases, BFG and certain waste-derived fuels. The operators should report to VAHTI system both fuel quantities as well as energy contents of the fuels used. Thus in bottom-up data there are some variations in the NCVs. The annual average values of reported data are compared to the default NCVs. Also plant level NCVs are compared to default NCVs.

Peat is one of the main fuels in Finland. It is the fourth largest fuel (after wood, hard coal and natural gas), representing over 6% of Total primary energy supply (TPES) and over 8% of combustible fuels. Its share is higher than for example the share of any liquid fuel. The share of peat is generally around half of the share of hard coal, but varies considerable, like the share of hard coal, too.

## Fuel specific sulphur contents

Fuel	Fuel	Default S%
11000	Petroleum products	0.21
11108	town gas	0.00001
11109	Other fossile gas	0.004
11110	Refinery gas	0.01
11120	Light distillates	0.00002
11210	Naphtha	0.005
11220	Motor gasoline (S=0.001%)	0.001
11230	Aviation gasoline	0.002
11310	Kerosene (jet fuel)	0.04
11320	Other kerosenes	0.07
11321	motor kerosene	0.07
11322	paraffin oil	0.02
11330	Diesel oil (S=0.001%)	0.001
11340	LFO (S=0.0915%)	0.0915
11350	Gasoil (for non-road use)	0.001
11390	Other medium distillates	0.12
11410	HFO (S<1%)	0.9
11420	HFO (normal, S>1%)	1.4
11430	Other heavy distillates	2.7
11500	Petroleum coke	1
11600	Recycled and waste oils	0.9
11601	Refined recycled and waste oils	0.9
11900	Other petroleum products	1
12110	Anthracite	1.5
12120	Hard coal, bituminous	0.8
12210	Semi-bituminous coal, brown coal, lignite	0.8
12220	Coal briquettes	2
12280	Coal tar	0.25
12290	Other non-specified coal	1
12300	Coke (S=1.0%)	1
12400	Coke oven gas	0.05
12500	Blast furnace gas	0.000001
12600	Converter gas	0.000001
13100	Natural gas	0.0001
21100	Milled peat	0.1
21200	Sod peat	0.11
21300	Peat pellets and briquettes	0.16
31100	Forest fuelwood	0.01
31110	Firewood (stems and split firewood)	0.015
31120	Chips from roundwood	0.01
31130	Forest residue chips	0.01
31210	Bark	0.0165
31220	Sawdust, cutter shavings etc.	0.0075
31230	Wood residue chips	0.008

31231	Plywood residues	0.018
31280	Unspecified industrial wood residue	0.012
31290	Other industrial wood residue	0.012
31301	Black liquor and other concentrated liquors	5
31302	sulphite waste liquor	5
31400	Other by-products from wood processing industry	0.018
31401	tall-oil pitch	0.5
31402	Metanol	1
31403	0-fibre/bio sludge	0.6
31404	Paper	0.038
31406	Odorous gases	15
31409	Other non-fossile liquid	2.5
31500	Recovered wood	0.15
31600	Wood pellets and briquettes	0.009
31700	Vegetable-based fuels	0.075
31800	Animal-based fuels	0.075
32110	Landfill gas	0.01
32120	Biogas from wastewater treatment	0.01
32130	Industrial biogas	0.01
32190	Other biogas (other non-fossile gas)	0.01
32200	Liquid biofuels	0.002
32311	Recovered fuels REF 1-waste sorted according to origin	0.14
32312	Recovered fuels REF 2-waste sorted according to origin	0.12
32313	Recovered fuels REF 3-waste sorted according to origin	0.1
32314	PDF-packaging waste	0.14
32315	RDF-municipal waste, mechanically sorted	0.22
32316	Municipal waste - unsorted	0.25
32320	Demolition wood	0.1
32331	Salt impregnated wood	0.02
32332	Creosote impregnated wood	0.07
32390	Other mixed fuels (other waste)	0.25
32391	Deinking waste	0.08
32400	Gasified waste	0.003
49110	Plastic waste	0.2
49120	Rubber waste	1.5
49130	Hazardous waste	0.1
49190	Other by-products and waste products (industrial waste)	1
49195	Suphur concentrate	10
49200	Exothermic heat from industry (other liquid)	0
49300	Secondary heat from industry	0
49800	Hydrogen	0.000001

## **Annex 5**

### **QA/QC Tools**

Updated March 2022 (JM)

## QA/QC Tools for the Finnish Air Pollutant Emissions Inventory

This Annex of the IIR describes the components of the QA/QC toolset specifically designed for the inventory process.

The developed toolset consists of a tool for analysing and compiling NFR tables and several more specified investigation tools for investigating data content of air emission database IPTJ. The tools were mostly developed with Microsoft Excel and SQL Server Management Studio. Methods described in this chapter do not replace or remove any previously existing QA/QC routines, which include procedures described in the EMEP/EEA Guidebooks.

### 1.1 NFR Compilation tool

The NFR compilation tool provides means to compile, analyse and correct NFR table files. It is designed to be used in sync with the latest reporting sheets but is also suitable for performing the same procedures on previously submitted files or submission files of other nations. It also provides means for notation key management.

#### 2.1.1 Time series from reporting sheets

The user is able to retrieve time series for all pollutants and NFR categories as well as their contributing rows from IPTJ. The emission intensity is visualized with conditional formatting and the following automatic check-ups are made:

- Strongly deviating values
- Gaps in series
- Inconsistency in notation keys
- Sudden drops or increases in emissions.
- Linear estimates for missing values (feature not used in inventory)

The following diagram explains the compilation of time series from the NFR reporting sheet. User selects a cell and with a quick key the time series for the corresponding pollutant and category is collected. The following examples are for demonstration purposes only and cover only the years 1980-1996. Some artificial errors are also included in order to present examples of the check-ups.

1A1a	NOx	Notes
1980	129.228	The value deviates over 100 % from the series median.
1981	109.120	
1982	104.120	
1983	93.436	
1984	88.553	Gap in series. Linear estimation: 96,5075
1985		
1986	104.462	
1987	112.601	A drop of 49,1 % in emission levels. Check continuity.
1988	113.043	
1989	116.964	
1990	59.539	
1991	58.921	Possibly erroneous value in set.
1992	47.001	
1993	51.560	
1994	51.819	
1995	39.101	
1996	46.389	
...	...	

The expert can also loop the procedure over all pollutants and create a compilation table of all pollutants for the selected category (NFR category or national totals).. Relative standard deviation is calculated and an index value is calculated to estimate the reliability of the series. Any changes in values or notation keys can be immediately exported back to the reporting sheet.

Table 1 – Example of a time series compilation table after looping through all pollutants. Pollutants expand horizontally and years vertically.

NA-TIONAL TOTAL	NOx (as NO2)	NMVOC	SOx (as SO2)	NH3	PM2.5	PM10	TSP	BC	CO	...
1980	303.825	NE	583.828	34.272	NE	NE	NE	NE	NE	...
1981	283.975	NE	533.830	34.759	NE	NE	NE	NE	NE	...
1982	279.406	NE	483.828	35.334	NE	NE	NE	NE	NE	...
1983	270.513	NE	371.831	35.522	NE	NE	NE	NE	NE	...
1984	266.352	NE	367.830	35.619	NE	NE	IE	NE	NE	...
1985	284.028	NE	381.832	35.636	NE	NE	NE	NE	NE	...
1986	285.889	NE	330.831	35.348	NE	NE	NE	NE	NE	...
1987	297.204	229.852	327.834	34.630	NE	NE	NE	NE	NE	...
1988	302.181	264.123	301.838	33.998	NE	NE	NE	NE	NE	...
1989	310.009	258.209	243.844	12.022	NE	NE	NE	NE	NE	...
1990	305.629	233.472	248.544	33.630	48.366	72.694	98.952	10.212	720.735	...
1991	NA	219.563	205.275	31.641	43.445	65.150	85.630	9.708	688.077	...
1992	275.374	214.625	155.967	30.767	39.899	59.213	77.930	9.441	667.862	...
1993	277.728	207.533	137.396	31.167	37.033	55.526	72.983	9.225	654.655	...
1994	277.596	205.741	122.529	32.106	36.375	54.637	72.888	9.105	636.460	...
1995	258.139	200.357	104.442	32.417	34.726	51.327	68.062	8.859	629.857	...
1996	262.178	193.999	108.994	33.432	33.842	49.945	65.863	8.577	620.323	...
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	...
RSD (%)	22.2 %	31.4 %	86.4 %	4.8 %	24.3 %	21.5 %	19.3 %	23.4 %	24.2 %	...

\* RSD, Relative Standard Deviation

### 2.1.2 Notation key management

The compilation table is especially suitable for notation key management, as all data can be imported and exported to and from the NFR submission file. The tool allows notation key management in many different ways:

- Directly in the NFR sheet
  - The notation key of the selected cell can be multiplied for all years or a prompted range of years with dedicated quick keys.
- In the compilation table
  - The compilation table makes it easy to spot and correct inconsistencies in notation keys over the time series. It also enables mass editing of NK's for example when changes in categorization occurs.
- In the time series analyzer

VBA-assisted lookup functions deliver the modified data in their corresponding places in the NFR sheet.

### 2.1.3 Compiling sheets for new inventory year

The tool also allows instant delivery of emission values from IPTJ to the reporting sheet. The expert selects the current inventory year, and emission values are retrieved from the database using an SQL-assisted PowerPivot query. Notation keys are retrieved from the corresponding year of the previously selected NFR reference file.

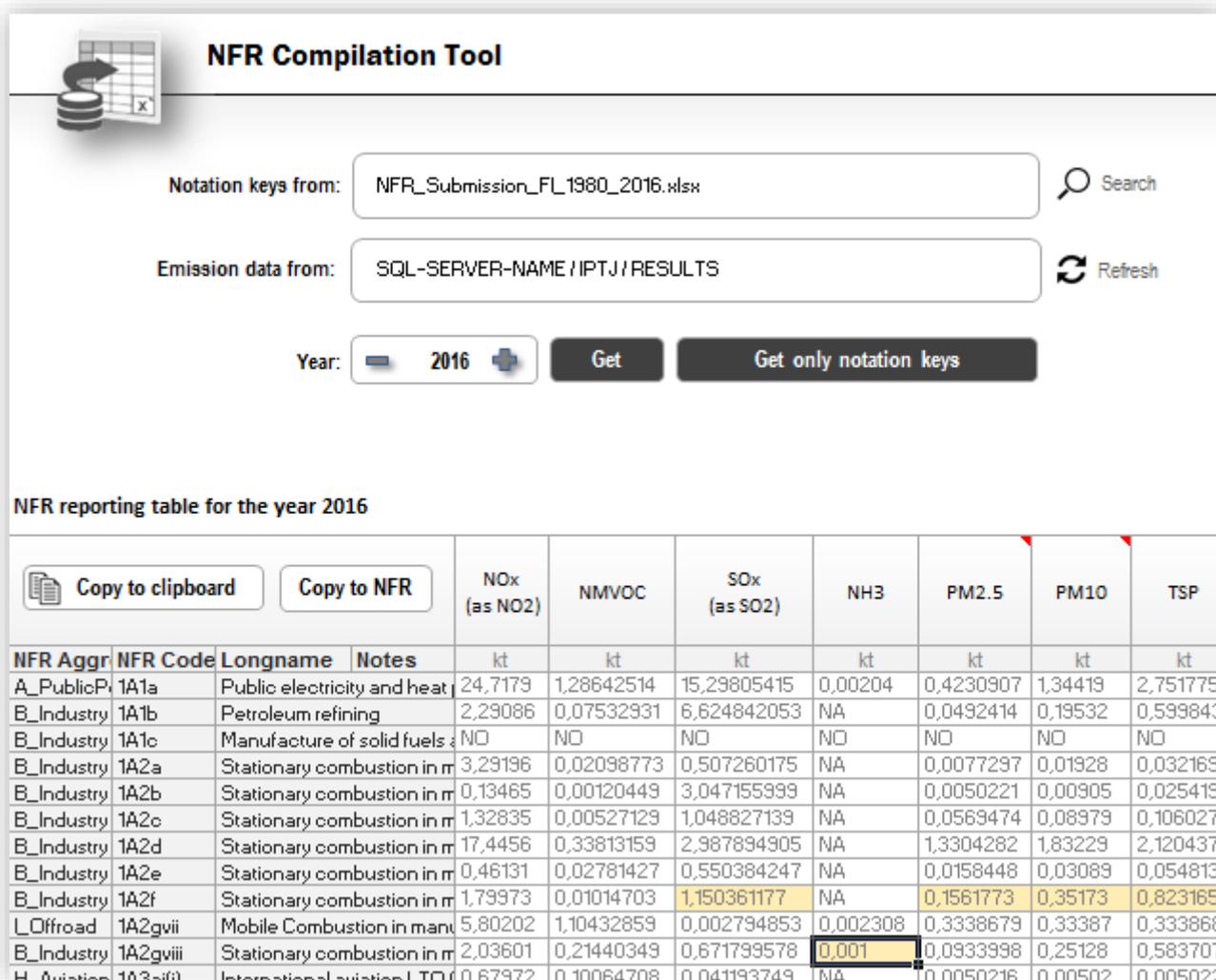


Figure 1 - A screenshot of the NFR compilation tool

The compilation tool performs checks and compares data and labels the cell with individual colors when:

- Emission value is **x** % higher than in previous year\*
- Emission value is **x** % less than in previous year\*
- If BC > PM2.5 > PM10 > TSP
- Sum of PAH's doesn't equal to Total 1-4,
- Emission value is 10 times higher, or a value is missing where previously reported
- Zero values
- Values where IPTJ content is newer than in the reporting sheet

\* **x** is user adjustable.

The data collected by the compilation tool can be exported to the reporting sheet with a one click solution. It is also possible to roll through all years in order to keep IPTJ content always in unison with reporting sheets.

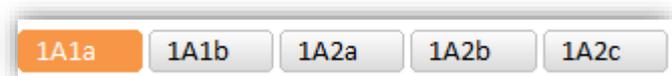
## 1.2 Tools for data analysis, compilation and management

To expand the scope of investigation limited by the main tool, several more specified tools were constructed by using the same technologies and disciplines to reveal issues of more specific types and levels of detail. These tools include:

- Time series analysis at six different levels of detail:
  - Point level (a facility can have multiple points)
  - Facility level (a SNAP category typically consists of multiple facilities)

- SNAP categorization (SNAP category is usually a subset of an NFR category)
- NFR categorization
- By fuel types
- Total emissions
- Tool to sort all point sources with highest contribution to overall emissions
- Tool to investigate key sources per pollutant
- A query to calculate implied emission factors
- A query to investigate the consistency of categories between different sources
- NULL-finder to reveal rows with missing essential information, such as emission values or categorizations.
- A query to find duplicate rows
- A query to manually back-up the main results table before major changes
- A routine to reveal point level gaps in time series and to estimate the combined effect of them.

**The tools above connect to IPTJ and are able to utilize the latest inventory data.** They connect to IPTJ via an ODBC connection and they utilize a combination techniques native to Microsoft Excel, PowerPivot and SQL. In some cases the tools are enhanced with VBA. By using PowerPivot for data retrieval, the upper limit of rows rarely becomes an issue in data management. A typical control element is a PivotTable slicer.



#### 2.1.4 Time series analysis for individual boilers or processes

The tool compiles a table by dimensions of *year x pollutant* after selecting a source. The tool alerts on years that are completely missing and when the maximum emission value deviates over ten times from the series median for any pollutant. The results are enhanced with conditional formatting to highlight the relative differences in emission values. Gaps in emission values are also displayed per pollutant.

Table 2 – Example of time series by point result sheet. Pollutants expand horizontally and years vertically.

<b>RSD (%)</b>	14.3 %	14.4 %	26.3 %	<b>NA</b>	...
----------------	--------	--------	--------	-----------	-----

Year	NOx as NO2	NMVOC	SOx as SO2	NH3	...
1990	58.828	4.54E-01	76.066		...
1991	58.760	4.29E-01	68.817		...
1992	46.651	4.12E-01	49.151		...
1993	51.175		49.486		...
1994	51.530	5.25E-01	46.905		...
1995	38.855	5.38E-01	36.616		...
1996	46.157	6.13E-01	45.303		...
⋮	⋮	⋮	⋮	⋮	...

#### 2.1.5 Time series analysis at facility level

The expert selects a pollutant to investigate. This forms a table with the dimensions of *facility x year*. The tool groups all point sources (e.g. individual boilers) into their corresponding facilities. The processes are described in the greatest detail possible. The expert can now browse through time series of all facilities and quickly investigate which events (e.g. changes in processes) actually contribute to the varying emission values. It also reveals if a point ID has changed during the

time series, thus patching the shortcomings of TS investigation by point ID only. The expert can filter the dataset by NFR category or certain range of years.

### 2.1.6 Time series by NFR and SNAP

In comparison to NFR categorization SNAP categorization is a more detailed and in IPTJ content in all cases a subset of an NFR category. The tools are identical to each other except by the controls for categorization. The tools flags missing years and if a pollutant maximum value is ten times greater than the series median.

### 2.1.7 Time series by fuel

The tool compiles time series by either a specific fuel or fuel groups (e.g. liquid fuels) by selecting the desired set from control slicers. These selections can be made independently of each other. Similarly to the previous tool, relative standard deviation for each pollutant is calculated and flagged if the maximum value is ten times greater than the series median.

### 2.1.8 Key source analysis

Categories that contribute to 80 % of emissions per pollutant are considered as key categories. The Approach 1 key categories according to the level of emissions can be quickly retrieved for all pollutants and years by using control slicers. The table calculates the sector sum, percentage of total emissions and cumulative percentage of emissions in an inclining order. Dataset can be filtered by NFR categories, for example to exclude NFR sheet memo items from key category analysis.

Year

1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
2008	2009	2010	2011	2012	2013	2014	2015	2016	9999				

Pollutant

	As	BC	Cd	CO	Cr	Cu	HCB
Hg	NH3	Ni	NMVOG	NOx (as N...	PAHs	Pb	PCBs
PCDD/PC...	PCP	PM1	PM10	PM2.5	Se	SOx (as S...	TSP
Zn	benzo(a)...	benzo(b) fl...	benzo(k) fl...	HCH	Indeno(1,...	PCDD	PCDF

NFR	Sector sum	Percentage of total	Cumulative percentage	Key category?
1A1a	15 298.05	38.04 %	38.04 %	Yes
1A1b	6 624.84	16.47 %	54.51 %	Yes
1A2b	3 047.16	7.58 %	62.08 %	Yes
1A2d	2 987.89	7.43 %	69.51 %	Yes
2B10a	1 737.09	4.32 %	73.83 %	Yes
1A5a	1 256.96	3.13 %	76.96 %	Yes
1A2f	1 150.36	2.86 %	79.82 %	Yes
1A4ai	1 088.00	2.71 %	82.52 %	Yes
1A2c	1 048.83	2.61 %	85.13 %	
1A4bi	1 007.76	2.51 %	87.64 %	
2H1	960.19	2.39 %	90.02 %	
2C1	743.57	1.85 %	91.87 %	
1A4ci	705.79	1.75 %	93.63 %	
1A2gviii	671.80	1.67 %	95.30 %	

<b>1A2e</b>	550.38	1.37 %	96.66 %
<b>1A2a</b>	507.26	1.26 %	97.93 %
<b>1A3ai(ii)</b>	480.28	1.19 %	99.12 %
⋮	⋮	⋮	⋮

## Checking gaps and discontinuity in emissions of energy sector point sources

This chapter explains the search of gaps and discontinuities in the energy sector emission data that was carried out during the time series update of 2017 and 2018. Many of the observations described here have since been corrected and are not present in the latest inventories.

### 1.3 Search of discontinuities

The routine checks for gaps in time-series where the following conditions are met:

- a point has more than one entry in time series per pollutant
- missing value exist in a range between two existing values (i.e. if a missing value exists in the beginning or the end of the series, it will not be revealed)
- Series connects the same point and pollutant

The routine also marks the last known values before and ahead of the found gap. A gap can therefore consist of more than one year, and the duration of the gap is recorded.

The check-up formula translates as follows:

If  $y_i \neq y_{i-1} + 1$ , then print for the row  $i$ : "the values for the years  $y_{i-1} + 1 - y_i - 1$  missing"

where,

$i$  = row index

$y$  = year

$y_{i-1}$  = year of the previous row

$y_i - 1$  = actual previous year

If the previous condition is met, the start point of the gap is filled to the cell  $y_{i-1}$ . The print out of found gap simultaneously marks the end point of the gap. These remarks can be used when referencing data in further investigations.

Table 3 – An example of the printouts for a point with missing values

Point ID	Emission	Year	Pollutant (ID)	Printout
12121	0.3402	2003	24	First in series (not checked)
12121	0.335016	2004	24	
12121	0.3402	2005	24	
12121	0.335016	2006	24	Start point of a gap
12121	0.276	2009	24	The values for the years 2007-2008 missing
12121	0.21744	2010	24	
12121	0.1052062	2011	24	
12121	0.03562	2012	24	Last in series (not checked)

### 2.1.9 Results

The method was able to programmatically reveal 518 gaps in series which would contribute to 0.06 % in relation to the count of rows examined. The method does not disclose the reason for the missing value. Many or most of these might be valid gaps due to e.g. stoppage of the plant. The table below presents for selected pollutants the expectable maximum of possible emissions if the gaps would be filled with the value of the closest year. The overall sums are negligible.

Table 4 – Count of found gaps and estimation of the potential maximum of missing emissions in relation the overall emissions

Pollutant	Pollutant ID	Estimate of sum of miss-	Percent in relation to	Count of miss-
As (kg)	8	0.270	0.001 %	17

Cd (kg)	20	0.660	0.004 %	17
CO (t)	24	63.690	0.006 %	28
Cr (kg)	31	4.541	0.001 %	17
Cu (kg)	35	6.689	0.004 %	18
Hg (kg)	47	0.066	0.001 %	17
Ni (kg)	63	25.114	0.009 %	17
Pb (kg)	79	7.496	0.002 %	17
SOx (as SO2) (t)	97	24.012	0.002 %	22
Zn (kg)	112	90.257	0.009 %	18
NOx (as NO2) (t)	314	31.279	0.002 %	28
PCDD/ PCDF (t)	1043	0.003	0.004 %	27
TSP (t)	1047	29.808	0.010 %	30
NMVOG (t)	1064	2.572	0.008 %	28
PAHs (g)	1065	574.868	0.008 %	32
PM10 (t)	1091	10.455	0.006 %	30
PM2.5 (t)	2591	3.817	0.004 %	30

#### 1.4 Interpretation of results

Out of the combined set of nearly two million rows of emission data, 518 meaningful events of discontinuity were observed. In relation to the whole dataset, the time series for the boilers under investigation is 99,97 % complete, and a notable share of the remaining 0,03 % might be explained by valid reasons.

## **Annex 6**

### **Uncertainty Analysis**

Updated March 2023 (TF)

# Uncertainty analysis to the 2023 submission, 2021 data

## 1 Methodology

Changes in chapter	
March 2021	TF

The uncertainty analysis for emission data is carried out following the Approach 1 methodology presented in the EMEP/EEA emission inventory guidebook 2019. The Approach 1 comprise estimation of uncertainties using the error propagation equations, and simple combination of uncertainties by source category to estimate overall uncertainty for one year and the uncertainty in the trend. The uncertainties of the input parameters (activity data and emission factors) are estimated by experts compiling the inventories and those of the measured emissions by the competent authorities that supervise emission monitoring carried out at the individual plants. In the case of emissions reported by the plants, the total uncertainty of the reported emission is determined instead of separate uncertainties for AD and EF. The fuel use uncertainties are the same that Statistics Finland uses in the UC analysis for the Finnish greenhouse gas inventory. The emissions of some pollutants from certain sources are poorly understood, for instance some POP compounds from fuel combustion and industrial processes, and therefore estimation of their uncertainty is found to be very challenging at the moment.

The uncertainty analysis covers all emission sources included in the inventory and represents thus the uncertainty of the reported emission data. The possible lack of completeness of emission sources is, however, not reflected in the uncertainty analysis. Information of the completeness of the inventory is presented in Chapter 2.8.

The uncertainty analysis is carried out at the country-level, i.e. uncertainties in emissions by region are not assessed.

### 1.1 Uncertainties by pollutants

Changes in chapter	
March 2023	TF

The results of the Approach 1 uncertainty analysis are presented in this section. The results are presented by pollutant and at the bottom of each table information on total emissions and total uncertainty in the inventory are given, both for the level and for the trend.

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2021 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
NOx	1A1a	Biomass	1.017	8.055	9.8	50.0	50.9	15.243	692.291	1.9
NOx	1A1a	Gaseous	8.859	1.187	9.9	50.0	51.0	0.331	-86.603	0.3
NOx	1A1a	Liquid	3.798	0.686	9.4	50.0	50.9	0.110	-81.932	0.2
NOx	1A1a	Other	0.006	1.315	10.0	50.0	51.0	0.407	21968.164	0.3
NOx	1A1a	Peat	9.791	3.048	7.4	50.0	50.6	2.150	-68.867	0.7
NOx	1A1a	Solid	36.204	2.576	10.0		10.0	0.060	-92.885	0.1
NOx	1A1b	Biomass		0.046	10.0		10.0	0.000	NA	0.0
NOx	1A1b	Gaseous	1.269	0.786	10.0		10.0	0.006	-38.107	0.0
NOx	1A1b	Liquid	2.045	0.659	10.0		10.0	0.004	-67.756	0.0
NOx	1A1b	Solid	0.005	0.001	10.0		10.0	0.000	-81.275	0.0
NOx	1A2a	Biomass		0.003	10.0		10.0	0.000	NA	0.0
NOx	1A2a	Gaseous	0.203	1.080	10.0	50.0	51.0	0.275	432.399	0.3
NOx	1A2a	Liquid	0.466	0.070	9.8	50.0	50.9	0.001	-84.860	0.0
NOx	1A2a	Solid	2.398	1.662	10.0		10.0	0.025	-30.714	0.1
NOx	1A2b	Gaseous		0.005	9.7	50.0	50.9	0.000	NA	0.0
NOx	1A2b	Liquid	0.240	0.095	8.8	50.0	50.8	0.002	-60.497	0.0
NOx	1A2b	Solid	0.422	0.015	9.0	50.0	50.8	0.000	-96.386	0.0
NOx	1A2c	Biomass	0.089	0.018	8.4	50.0	50.7	0.000	-80.066	0.0
NOx	1A2c	Gaseous	0.181	0.086	9.9	50.0	51.0	0.002	-52.337	0.0
NOx	1A2c	Liquid	1.137	1.186	9.9	50.0	51.0	0.331	4.311	0.3
NOx	1A2c	Other	0.152	0.003	10.0		10.0	0.000	-98.066	0.0
NOx	1A2d	Biomass	8.656	12.797	9.9	50.0	51.0	38.510	47.849	3.0
NOx	1A2d	Gaseous	3.395	1.010	9.1	50.0	50.8	0.239	-70.243	0.2
NOx	1A2d	Liquid	2.136	1.174	9.8	50.0	51.0	0.324	-45.023	0.3
NOx	1A2d	Other	0.044	0.243	10.0	50.0	51.0	0.014	451.194	0.1
NOx	1A2d	Peat	1.476	0.574	10.0		10.0	0.003	-61.135	0.0
NOx	1A2d	Solid	2.455	0.017	10.0		10.0	0.000	-99.309	0.0
NOx	1A2e	Biomass	0.032	0.062	9.6	50.0	50.9	0.001	94.501	0.0
NOx	1A2e	Gaseous	0.088	0.021	8.2	50.0	50.7	0.000	-75.585	0.0
NOx	1A2e	Liquid	0.662	0.043	6.5	50.0	50.4	0.000	-93.454	0.0
NOx	1A2e	Other	0.001	0.004	7.3	50.0	50.5	0.000	791.214	0.0
NOx	1A2e	Peat	0.165	0.118	10.0		10.0	0.000	-28.207	0.0
NOx	1A2e	Solid	0.247	0.026	9.0	50.0	50.8	0.000	-89.273	0.0
NOx	1A2f	Biomass	0.000	0.029	8.9	50.0	50.8	0.000	12368.470	0.0
NOx	1A2f	Gaseous	0.261	0.086	9.9	50.0	51.0	0.002	-67.038	0.0
NOx	1A2f	Liquid	0.665	0.915	8.7	50.0	50.8	0.195	37.694	0.2
NOx	1A2f	Other	0.580	0.309	10.0		10.0	0.001	-46.724	0.0

NOx	1A2f	Solid	3.724	0.380	10.0		10.0	0.001	-89.800	0.0
NOx	1A2gvii	Liquid	12.650	4.905	4.9	50.0	50.2	5.497	-61.228	1.1
NOx	1A2gviii	Biomass	0.862	0.909	7.8	50.0	50.6	0.191	5.349	0.2
NOx	1A2gviii	Gaseous	0.075	0.160	9.4	50.0	50.9	0.006	112.413	0.0
NOx	1A2gviii	Liquid	1.266	0.342	5.4	50.0	50.3	0.027	-73.010	0.1
NOx	1A2gviii	Other	0.148	0.547	10.0		10.0	0.003	269.932	0.0
NOx	1A2gviii	Peat	0.046	0.109	10.0	50.0	51.0	0.003	136.147	0.0
NOx	1A3ai(i)	Liquid	0.251	0.270	5.0	50.0	50.2	0.017	7.459	0.1
NOx	1A3aii(i)	Liquid	0.311	0.065	4.9	50.0	50.2	0.001	-79.005	0.0
NOx	1A3bi	Diesel oil	6.783	8.042	1.0	50.0	50.0	14.642	18.551	1.9
NOx	1A3bi	Gaseous		0.007	3.0	50.0	50.1	0.000	NA	0.0
NOx	1A3bi	Gasoline	62.636	1.864	2.0	50.0	50.0	0.787	-97.024	0.4
NOx	1A3bii	Diesel oil	4.439	3.841	1.0	50.0	50.0	3.340	-13.480	0.9
NOx	1A3bii	Gaseous		0.001	3.0	50.0	50.1	0.000	NA	0.0
NOx	1A3bii	Gasoline	1.532	0.067	2.0	50.0	50.0	0.001	-95.656	0.0
NOx	1A3biii	Diesel oil	58.866	7.963	1.0	50.0	50.0	14.356	-86.473	1.8
NOx	1A3biii	Gaseous		0.013	3.0	50.0	50.1	0.000	NA	0.0
NOx	1A3biv	Diesel oil		0.035	1.0	50.0	50.0	0.000	NA	0.0
NOx	1A3biv	Gasoline	0.065	0.142	2.0	50.0	50.0	0.005	117.207	0.0
NOx	1A3c	Liquid	4.212	1.521	2.0	50.0	50.0	0.525	-63.883	0.4
NOx	1A3dii	Liquid	9.130	4.810	8.8	50.0	50.8	5.397	-47.317	1.1
NOx	1A3ei	Gaseous	0.009	0.006	10.0	50.0	51.0	0.000	-33.820	0.0
NOx	1A4ai	Biomass	0.156	0.275	20.0	50.0	53.9	0.020	76.637	0.1
NOx	1A4ai	Gaseous	0.043	0.062	9.8	50.0	51.0	0.001	44.680	0.0
NOx	1A4ai	Liquid	2.314	0.950	12.1	50.0	51.4	0.216	-58.949	0.2
NOx	1A4ai	Peat	0.015	0.013	15.0	50.0	52.2	0.000	-11.947	0.0
NOx	1A4aii	Liquid	5.216	1.121	12.9	50.0	51.6	0.303	-78.505	0.3
NOx	1A4bi	Biomass	3.303	4.249	20.0	50.0	53.9	4.739	28.627	1.1
NOx	1A4bi	Gaseous	0.030	0.058	10.0	50.0	51.0	0.001	91.657	0.0
NOx	1A4bi	Liquid	3.114	0.678	15.1	50.0	52.2	0.113	-78.240	0.2
NOx	1A4bi	Other	0.003	0.000	10.0	50.0	51.0	0.000	-97.674	0.0
NOx	1A4bi	Peat	0.065	0.017	15.0	50.0	52.2	0.000	-74.568	0.0
NOx	1A4bii	Liquid	0.396	0.919	11.5	50.0	51.3	0.201	132.262	0.2
NOx	1A4ci	Biomass	0.520	0.472	19.7	50.0	53.7	0.058	-9.268	0.1
NOx	1A4ci	Gaseous	0.056	0.006	10.0	50.0	51.0	0.000	-89.805	0.0
NOx	1A4ci	Liquid	0.744	0.318	14.0	50.0	51.9	0.025	-57.177	0.1
NOx	1A4ci	Peat	0.040	0.119	10.0	50.0	51.0	0.003	198.553	0.0
NOx	1A4ci	Solid	0.024	0.016	20.0	50.0	53.9	0.000	-32.596	0.0
NOx	1A4cii	Liquid	12.825	2.281	14.5	50.0	52.1	1.276	-82.218	0.5
NOx	1A4ciii	Liquid	3.580	1.718	15.0	50.0	52.2	0.728	-52.015	0.4
NOx	1A5a	Biomass	0.032	3.821	10.0	50.0	51.0	3.436	11819.650	0.9
NOx	1A5a	Gaseous	0.116	0.219	20.0	50.0	53.9	0.013	88.951	0.1
NOx	1A5a	Liquid	2.178	1.446	12.3	50.0	51.5	0.502	-33.614	0.3
NOx	2B10a		0.061	0.147	22.9		22.9	0.001	139.578	0.0
NOx	2B2		0.744	0.402	20.0		20.0	0.006	-45.917	0.0
NOx	2G		0.010	0.004	35.0	100.0	105.9	0.000	-57.886	0.0
NOx	3B1a		0.156	0.044	3.0	200.0	200.0	0.007	-71.658	0.0
NOx	3B1b		0.135	0.148	3.0	200.0	200.0	0.079	9.742	0.1

NOx	3B2	0.006	0.007	5.0	200.0	200.1	0.000	22.689	0.0
NOx	3B3	0.068	0.006	5.0	200.0	200.1	0.000	-91.956	0.0
NOx	3B4d	0.000	0.000	5.0	200.0	200.1	0.000	-7.246	0.0
NOx	3B4e	0.016	0.031	5.0	200.0	200.1	0.003	90.280	0.0
NOx	3B4gi	0.052	0.045	5.0	200.0	200.1	0.007	-15.185	0.0
NOx	3B4gii	0.027	0.089	5.0	200.0	200.1	0.028	226.655	0.1
NOx	3B4giii	0.001	0.009	5.0	200.0	200.1	0.000	672.424	0.0
NOx	3B4giv	0.007	0.005	5.0	200.0	200.1	0.000	-30.185	0.0
NOx	3B4h	0.042	0.036	5.0	200.0	200.1	0.005	-13.345	0.0
NOx	3Da1	9.143	5.575	10.0	100.0	100.5	28.422	-39.022	2.6
NOx	3Da2a	3.070	2.800	45.0	200.0	205.0	29.832	-8.798	2.6
NOx	3Da2b	0.063	0.110	30.0	200.0	202.2	0.045	74.091	0.1
NOx	3Da2c	0.103	0.291	45.0	160.0	166.2	0.212	181.172	0.2
NOx	3Da3	0.727	0.585	45.0	200.0	205.0	1.302	-19.527	0.6
<b>Total</b>		<b>306.578</b>	<b>105.102</b>			<b>13.2</b>		<b>-65.718</b>	<b>6.4</b>

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2021 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
NMVOC	1A1a	Biomass	0.109	1.075	4.8	80.0	80.1	1.086	886.830	0.5
NMVOC	1A1a	Gaseous	0.042	0.061	23.3	80.0	83.3	0.004	47.149	0.0
NMVOC	1A1a	Liquid	0.027	0.028	20.6	80.0	82.6	0.001	2.463	0.0
NMVOC	1A1a	Other	0.001	0.274	11.5	80.0	80.8	0.072	26494.836	0.1
NMVOC	1A1a	Peat	0.199	0.141	3.7	80.0	80.1	0.019	-29.141	0.1
NMVOC	1A1a	Solid	0.117	0.175	12.6	80.0	81.0	0.029	48.668	0.1
NMVOC	1A1b	Biomass		0.002	10.0	80.0	80.6	0.000	NA	0.0
NMVOC	1A1b	Gaseous	0.007	0.022	15.0	80.0	81.4	0.000	235.365	0.0
NMVOC	1A1b	Liquid	0.005	0.048	9.0	80.0	80.5	0.002	888.942	0.0
NMVOC	1A1b	Solid		0.000	3.0	80.0	80.1	0.000	NA	0.0
NMVOC	1A2a	Biomass		0.001	10.0	80.0	80.6	0.000	NA	0.0
NMVOC	1A2a	Gaseous	0.111	0.004	2.0	80.0	80.0	0.000	-96.152	0.0
NMVOC	1A2a	Liquid	0.003	0.000	4.4	80.0	80.1	0.000	-96.779	0.0
NMVOC	1A2a	Solid	0.017	0.011	2.2	80.0	80.0	0.000	-34.978	0.0
NMVOC	1A2b	Gaseous		0.000	4.8	80.0	80.1	0.000	NA	0.0
NMVOC	1A2b	Liquid	0.001	0.001	7.0	80.0	80.3	0.000	-16.246	0.0
NMVOC	1A2b	Solid	0.000	0.000	4.7	80.0	80.1	0.000	-57.888	0.0
NMVOC	1A2c	Biomass	0.002	0.001	21.0	80.0	82.7	0.000	-23.977	0.0
NMVOC	1A2c	Gaseous	0.002	0.006	3.9	80.0	80.1	0.000	242.778	0.0
NMVOC	1A2c	Liquid	0.004	0.001	3.4	80.0	80.1	0.000	-58.611	0.0

NM VOC	1A2c	Other	0.003	0.000	10.0	80.0	80.6	0.000	-98.515	0.0
NM VOC	1A2d	Biomass	0.430	0.284	2.2	80.0	80.0	0.075	-33.998	0.1
NM VOC	1A2d	Gaseous	0.077	0.019	2.7	80.0	80.0	0.000	-75.479	0.0
NM VOC	1A2d	Liquid	0.174	0.007	1.9	80.0	80.0	0.000	-96.121	0.0
NM VOC	1A2d	Other	0.000	0.010	9.8	80.0	80.6	0.000	3405.135	0.0
NM VOC	1A2d	Peat	0.018	0.014	2.1	80.0	80.0	0.000	-24.045	0.0
NM VOC	1A2d	Solid	0.038	0.001	5.0	80.0	80.2	0.000	-98.451	0.0
NM VOC	1A2e	Biomass	0.007	0.007	8.6	80.0	80.5	0.000	-8.228	0.0
NM VOC	1A2e	Gaseous	0.001	0.000	2.9	80.0	80.1	0.000	-56.881	0.0
NM VOC	1A2e	Liquid	0.005	0.001	2.9	80.0	80.1	0.000	-88.465	0.0
NM VOC	1A2e	Other	0.000	0.002	10.0	80.0	80.6	0.000	738.418	0.0
NM VOC	1A2e	Peat	0.012	0.009	5.0	80.0	80.2	0.000	-25.406	0.0
NM VOC	1A2e	Solid	0.007	0.001	4.6	80.0	80.1	0.000	-88.125	0.0
NM VOC	1A2f	Biomass	0.000	0.002	7.7	80.0	80.4	0.000	54940.250	0.0
NM VOC	1A2f	Gaseous	0.003	0.001	3.0	80.0	80.1	0.000	-72.611	0.0
NM VOC	1A2f	Liquid	0.005	0.003	3.0	80.0	80.1	0.000	-43.091	0.0
NM VOC	1A2f	Other		0.008	10.0	80.0	80.6	0.000	NA	0.0
NM VOC	1A2f	Solid	0.009	0.003	3.4	80.0	80.1	0.000	-71.545	0.0
NM VOC	1A2gvii	Liquid	2.366	1.040	4.9	80.0	80.2	1.016	-56.044	0.5
NM VOC	1A2gviii	Biomass	0.199	0.147	8.7	80.0	80.5	0.020	-26.429	0.1
NM VOC	1A2gviii	Gaseous	0.002	0.003	24.0	80.0	83.5	0.000	72.263	0.0
NM VOC	1A2gviii	Liquid	0.017	0.045	27.3	80.0	84.5	0.002	157.790	0.0
NM VOC	1A2gviii	Other	0.011	0.028	9.6	80.0	80.6	0.001	143.447	0.0
NM VOC	1A2gviii	Peat	0.002	0.004	9.7	80.0	80.6	0.000	82.616	0.0
NM VOC	1A3ai(i)	Liquid	0.056	0.029	5.0	80.0	80.2	0.001	-47.841	0.0
NM VOC	1A3ai(i)	Liquid	0.056	0.009	4.9	80.0	80.2	0.000	-83.505	0.0
NM VOC	1A3bi	Diesel oil	1.332	0.083	1.0	80.0	80.0	0.006	-93.787	0.0
NM VOC	1A3bi	Gaseous		0.003	3.0	80.0	80.1	0.000	NA	0.0
NM VOC	1A3bi	Gasoline	49.364	0.996	2.0	80.0	80.0	0.928	-97.983	0.5
NM VOC	1A3bii	Diesel oil	0.796	0.206	1.0	80.0	80.0	0.040	-74.160	0.1
NM VOC	1A3bii	Gaseous		0.000	3.0	80.0	80.1	0.000	NA	0.0
NM VOC	1A3bii	Gasoline	1.669	0.022	2.0	80.0	80.0	0.000	-98.676	0.0
NM VOC	1A3biii	Diesel oil	7.843	0.225	1.0	80.0	80.0	0.047	-97.131	0.1
NM VOC	1A3biii	Gaseous		0.001	3.0	80.0	80.1	0.000	NA	0.0
NM VOC	1A3biv	Diesel oil		0.007	1.0	80.0	80.0	0.000	NA	0.0
NM VOC	1A3biv	Gasoline	2.767	0.878	2.0	80.0	80.0	0.722	-68.274	0.4
NM VOC	1A3bv		13.655	1.236	1.0	200.0	200.0	8.931	-90.951	1.5
NM VOC	1A3c	Liquid	0.234	0.086	2.0	80.0	80.0	0.007	-63.415	0.0
NM VOC	1A3dii	Liquid	9.646	3.550	8.8	80.0	80.5	11.932	-63.201	1.7
NM VOC	1A3ei	Gaseous	0.000	0.000	20.0	80.0	82.5	0.000	204.273	0.0
NM VOC	1A4ai	Biomass	0.007	0.010	20.0	80.0	82.5	0.000	47.851	0.0
NM VOC	1A4ai	Gaseous	0.003	0.006	10.0	80.0	80.6	0.000	94.045	0.0
NM VOC	1A4ai	Liquid	0.125	0.055	13.0	80.0	81.0	0.003	-55.893	0.0
NM VOC	1A4ai	Peat	0.016	0.018	15.0	80.0	81.4	0.000	13.079	0.0
NM VOC	1A4aii	Liquid	6.267	0.432	12.9	80.0	81.0	0.179	-93.111	0.2
NM VOC	1A4bi	Biomass	17.720	19.575	20.0	80.0	82.5	380.990	10.469	9.7
NM VOC	1A4bi	Gaseous	0.003	0.006	10.0	80.0	80.6	0.000	91.657	0.0
NM VOC	1A4bi	Liquid	0.195	0.042	15.1	80.0	81.4	0.002	-78.274	0.0

NMVOC	1A4bi	Other	0.000	0.000	10.0	80.0	80.6	0.000	-97.674	0.0
NMVOC	1A4bi	Peat	0.130	0.033	15.0	80.0	81.4	0.001	-74.568	0.0
NMVOC	1A4bii	Liquid	6.597	2.144	11.5	80.0	80.8	4.392	-67.493	1.0
NMVOC	1A4ci	Biomass	0.020	0.018	20.0	80.0	82.5	0.000	-9.545	0.0
NMVOC	1A4ci	Gaseous	0.002	0.001	10.0	80.0	80.6	0.000	-70.355	0.0
NMVOC	1A4ci	Liquid	0.044	0.020	14.0	80.0	81.2	0.000	-53.832	0.0
NMVOC	1A4ci	Peat	0.080	0.239	10.0	80.0	80.6	0.054	198.253	0.1
NMVOC	1A4ci	Solid	0.001	0.000	20.0	80.0	82.5	0.000	-32.672	0.0
NMVOC	1A4cii	Liquid	6.642	1.297	14.5	80.0	81.3	1.627	-80.470	0.6
NMVOC	1A4ciii	Liquid	0.144	0.079	15.0	80.0	81.4	0.006	-44.837	0.0
NMVOC	1A5a	Biomass	0.014	0.382	10.0	80.0	80.6	0.139	2669.319	0.2
NMVOC	1A5a	Gaseous	0.012	0.022	20.0	80.0	82.5	0.000	90.474	0.0
NMVOC	1A5a	Liquid	0.140	0.098	12.3	80.0	80.9	0.009	-29.457	0.0
NMVOC	1B1b		0.037	0.051	10.0	900.0	900.1	0.309	36.100	0.3
NMVOC	1B2aiv		6.600	2.234	100.0		100.0	7.295	-66.159	1.3
NMVOC	1B2av		7.411	2.629	19.6	100.0	101.9	10.492	-64.533	1.6
NMVOC	1B2b		0.255	0.249	10.0	100.0	100.5	0.092	-1.985	0.2
NMVOC	2A1		0.054	0.027	29.5		29.5	0.000	-50.560	0.0
NMVOC	2A3		0.001	0.002	99.2	80.0	127.5	0.000	69.924	0.0
NMVOC	2B10a		7.836	2.532	100.0		100.0	9.373	-67.690	1.5
NMVOC	2B10b		0.134	0.136	100.0		100.0	0.027	1.919	0.1
NMVOC	2C1		0.796	0.212	99.7		99.7	0.065	-73.371	0.1
NMVOC	2C2			0.002	100.0		100.0	0.000	NA	0.0
NMVOC	2C3		0.022	0.000	100.0		100.0	0.000	-97.750	0.0
NMVOC	2C7a			0.001	200.0		200.0	0.000	NA	0.0
NMVOC	2C7b		0.010	0.016	100.0		100.0	0.000	60.000	0.0
NMVOC	2C7c		0.025	0.002	100.0		100.0	0.000	-90.430	0.0
NMVOC	2D3a		3.825	7.321	40.0	108.0	115.2	103.944	91.399	5.1
NMVOC	2D3b		0.900	0.350	30.0	80.0	85.4	0.130	-61.154	0.2
NMVOC	2D3c		6.260	0.144	30.0	80.0	85.4	0.022	-97.693	0.1
NMVOC	2D3d		27.500	6.988	61.6	200.0	209.3	312.736	-74.590	8.8
NMVOC	2D3e		2.638	0.613	19.6	200.0	201.0	2.218	-76.770	0.7
NMVOC	2D3g		3.956	2.009	86.1	200.0	217.7	27.982	-49.208	2.6
NMVOC	2D3h		8.800	0.428	61.0	200.0	209.1	1.170	-95.139	0.5
NMVOC	2D3i		2.085	1.581	38.3	200.0	203.6	15.157	-24.182	1.9
NMVOC	2G		0.027	0.016	35.0	100.0	105.9	0.000	-40.221	0.0
NMVOC	2H1		2.966	1.113	11.9	80.0	80.9	1.185	-62.472	0.5
NMVOC	2H2		2.523	1.921	28.8	900.0	900.5	437.317	-23.882	10.4
NMVOC	2I		1.070	1.231	40.4	80.0	89.6	1.780	15.035	0.7
NMVOC	2L		0.013	0.001	100.0		100.0	0.000	-89.681	0.0
NMVOC	3B1a		7.763	5.903	3.0	200.0	200.0	203.846	-23.966	7.1
NMVOC	3B1b		3.732	4.147	3.0	200.0	200.0	100.589	11.106	5.0
NMVOC	3B2		0.105	0.142	5.0	200.0	200.1	0.117	34.882	0.2
NMVOC	3B3		0.423	0.249	5.0	200.0	200.1	0.363	-41.197	0.3
NMVOC	3B4d		0.004	0.005	5.0	200.0	200.1	0.000	6.891	0.0
NMVOC	3B4e		0.153	0.248	5.0	200.0	200.1	0.360	61.909	0.3
NMVOC	3B4gi		0.256	0.248	5.0	200.0	200.1	0.361	-3.077	0.3
NMVOC	3B4gii		0.235	0.750	5.0	200.0	200.1	3.292	219.406	0.9

NM VOC	3B4giii		0.006	0.030	5.0	200.0	200.1	0.005	400.749	0.0
NM VOC	3B4giv		0.041	0.025	5.0	200.0	200.1	0.004	-39.349	0.0
NM VOC	3B4h		1.261	0.769	5.0	200.0	200.1	3.458	-39.057	0.9
NM VOC	3Da2a		3.916	2.194	45.0	200.0	205.0	29.581	-43.978	2.7
NM VOC	3Da3		0.104	0.073	45.0	200.0	205.0	0.033	-29.627	0.1
NM VOC	3De		1.062	0.715	30.0	100.0	104.4	0.814	-32.669	0.4
NM VOC	5A		0.234	0.071	15.0	200.0	200.6	0.030	-69.671	0.1
NM VOC	5D1		0.003	0.009	10.0	200.0	200.2	0.001	190.062	0.0
NM VOC	5D2		0.022	0.018	10.0	200.0	200.2	0.002	-17.395	0.0
<b>Total</b>			<b>235.049</b>	<b>82.697</b>			<b>41.1</b>		<b>-64.817</b>	<b>20.4</b>

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2021 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
SO2	1A1a	Biomass	0.587	0.943	9.0	40.0	41.0	2.753	60.702	0.2
SO2	1A1a	Gaseous	0.002	0.002	2.1	20.0	20.1	0.000	-3.609	0.0
SO2	1A1a	Liquid	16.678	0.413	8.5	20.0	21.7	0.148	-97.522	0.1
SO2	1A1a	Other	0.027	0.176	9.9	40.0	41.2	0.097	556.069	0.0
SO2	1A1a	Peat	8.877	1.980	7.2	40.0	40.6	11.936	-77.694	0.5
SO2	1A1a	Solid	50.545	2.638	10.0		10.0	1.283	-94.780	0.1
SO2	1A1b	Biomass		0.004	10.0		10.0	0.000	NA	0.0
SO2	1A1b	Gaseous	0.001	0.225	10.0	20.0	22.4	0.046	21490.160	0.0
SO2	1A1b	Liquid	21.319	2.879	10.0		10.0	1.527	-86.497	0.2
SO2	1A1b	Solid	0.467	0.010	10.0		10.0	0.000	-97.960	0.0
SO2	1A2a	Biomass		0.000	10.0		10.0	0.000	NA	0.0
SO2	1A2a	Gaseous	0.000	0.001	8.9	20.0	21.9	0.000	1215.478	0.0
SO2	1A2a	Liquid	1.958	0.006	9.1	20.0	22.0	0.000	-99.684	0.0
SO2	1A2a	Solid	7.266	0.386	10.0		10.0	0.027	-94.690	0.0
SO2	1A2b	Gaseous		0.000	10.0	20.0	22.4	0.000	NA	0.0
SO2	1A2b	Liquid	4.045	1.330	9.9	20.0	22.3	1.622	-67.126	0.2
SO2	1A2b	Solid	4.034	1.216	10.0		10.0	0.272	-69.858	0.1
SO2	1A2c	Biomass	0.240	0.004	9.1	40.0	41.0	0.000	-98.231	0.0
SO2	1A2c	Gaseous	0.000	0.005	9.9	20.0	22.3	0.000	6922.612	0.0
SO2	1A2c	Liquid	4.948	0.396	9.7	20.0	22.2	0.143	-91.999	0.1
SO2	1A2c	Other	0.044	0.000	10.0	40.0	41.2	0.000	-100.000	0.0
SO2	1A2d	Biomass	6.427	0.962	8.4	40.0	40.9	2.847	-85.034	0.2
SO2	1A2d	Gaseous	0.201	0.001	2.7	20.0	20.2	0.000	-99.701	0.0
SO2	1A2d	Liquid	19.440	0.280	9.8	20.0	22.3	0.071	-98.562	0.0
SO2	1A2d	Other	0.390	0.090	8.8	40.0	41.0	0.025	-76.796	0.0

SO2	1A2d	Peat	5.876	0.359	10.0		10.0	0.024	-93.887	0.0
SO2	1A2d	Solid	6.141	0.018	10.0		10.0	0.000	-99.705	0.0
SO2	1A2e	Biomass	0.030	0.049	6.8	40.0	40.6	0.007	64.491	0.0
SO2	1A2e	Gaseous	0.000	0.000	2.9	20.0	20.2	0.000	-87.731	0.0
SO2	1A2e	Liquid	3.245	0.026	2.8	20.0	20.2	0.000	-99.207	0.0
SO2	1A2e	Other	0.001	0.005	10.0	40.0	41.2	0.000	610.488	0.0
SO2	1A2e	Peat	0.230	0.098	10.0		10.0	0.002	-57.303	0.0
SO2	1A2e	Solid	0.783	0.070	9.2	40.0	41.0	0.015	-91.028	0.0
SO2	1A2f	Biomass	0.000	0.002	8.3	40.0	40.9	0.000	2925.658	0.0
SO2	1A2f	Gaseous	0.064	0.005	9.9	20.0	22.3	0.000	-91.605	0.0
SO2	1A2f	Liquid	1.827	0.127	7.1	20.0	21.2	0.013	-93.057	0.0
SO2	1A2f	Other	0.033	0.003	10.0		10.0	0.000	-89.983	0.0
SO2	1A2f	Solid	1.111	0.246	10.0		10.0	0.011	-77.864	0.0
SO2	1A2gvii	Liquid	1.003	0.004	4.9	50.0	50.2	0.000	-99.558	0.0
SO2	1A2gviii	Biomass	0.349	0.226	6.7	40.0	40.6	0.154	-35.382	0.1
SO2	1A2gviii	Gaseous	0.000	0.007	5.1	20.0	20.6	0.000	23756.765	0.0
SO2	1A2gviii	Liquid	4.935	0.139	3.6	20.0	20.3	0.015	-97.187	0.0
SO2	1A2gviii	Other	0.307	0.021	10.0		10.0	0.000	-93.050	0.0
SO2	1A2gviii	Peat	0.019	0.051	10.0	40.0	41.2	0.008	174.627	0.0
SO2	1A3ai(i)	Liquid	0.021	0.016	5.0	50.0	50.2	0.001	-25.554	0.0
SO2	1A3aii(i)	Liquid	0.021	0.005	4.9	50.0	50.2	0.000	-77.952	0.0
SO2	1A3bi	Diesel oil	0.909	0.006	1.0	50.0	50.0	0.000	-99.287	0.0
SO2	1A3bi	Gaseous		0.000	3.0	50.0	50.1	0.000	NA	0.0
SO2	1A3bi	Gasoline	0.860	0.017	2.0	50.0	50.0	0.001	-98.038	0.0
SO2	1A3bii	Diesel oil	0.705	0.003	1.0	50.0	50.0	0.000	-99.582	0.0
SO2	1A3bii	Gaseous		0.000	3.0	50.0	50.1	0.000	NA	0.0
SO2	1A3bii	Gasoline	0.032	0.000	2.0	50.0	50.0	0.000	-99.805	0.0
SO2	1A3biii	Diesel oil	2.738	0.014	1.0	50.0	50.0	0.001	-99.481	0.0
SO2	1A3biii	Gaseous		0.000	3.0	50.0	50.1	0.000	NA	0.0
SO2	1A3biv	Diesel oil		0.000	1.0	50.0	50.0	0.000	NA	0.0
SO2	1A3biv	Gasoline	0.007	0.001	2.0	50.0	50.0	0.000	-92.533	0.0
SO2	1A3c	Liquid	0.438	0.000	2.0	50.0	50.0	0.000	-99.936	0.0
SO2	1A3dii	Liquid	1.650	0.042	8.8	50.0	50.8	0.008	-97.477	0.0
SO2	1A3ei	Gaseous	0.000	0.000	20.0	50.0	53.9	0.000	204.273	0.0
SO2	1A4ai	Biomass	0.010	0.017	20.0	40.0	44.7	0.001	71.144	0.0
SO2	1A4ai	Gaseous	0.000	0.000	10.0	20.0	22.4	0.000	80.686	0.0
SO2	1A4ai	Liquid	10.103	1.112	13.0	20.0	23.9	1.296	-88.997	0.2
SO2	1A4ai	Peat	0.016	0.019	15.0	40.0	42.7	0.001	18.247	0.0
SO2	1A4aii	Liquid	0.409	0.001	12.9	50.0	51.6	0.000	-99.704	0.0
SO2	1A4bi	Biomass	0.206	0.266	20.0	40.0	44.7	0.260	28.627	0.1
SO2	1A4bi	Gaseous	0.000	0.000	10.0	20.0	22.4	0.000	126.727	0.0
SO2	1A4bi	Liquid	4.226	0.375	15.1	20.0	25.1	0.163	-91.135	0.1
SO2	1A4bi	Other	0.000	0.000	10.0	40.0	41.2	0.000	-97.674	0.0
SO2	1A4bi	Peat	0.117	0.030	15.0	40.0	42.7	0.003	-74.568	0.0
SO2	1A4bii	Liquid	0.032	0.001	11.5	50.0	51.3	0.000	-97.605	0.0
SO2	1A4ci	Biomass	0.033	0.030	19.5	40.0	44.5	0.003	-8.220	0.0
SO2	1A4ci	Gaseous	0.000	0.000	10.0	20.0	22.4	0.000	-80.629	0.0
SO2	1A4ci	Liquid	3.231	0.208	14.0	20.0	24.4	0.047	-93.558	0.0

SO2	1A4ci	Peat	0.072	0.214	10.0	40.0	41.2	0.144	197.652	0.1
SO2	1A4ci	Solid	0.093	0.060	20.0	40.0	44.7	0.013	-35.767	0.0
SO2	1A4cii	Liquid	0.986	0.003	14.5	50.0	52.1	0.000	-99.708	0.0
SO2	1A4ciii	Liquid	0.195	0.000	15.0	50.0	52.2	0.000	-99.803	0.0
SO2	1A5a	Biomass	0.008	0.764	10.0	40.0	41.2	1.829	9171.627	0.2
SO2	1A5a	Gaseous	0.000	0.074	20.0	20.0	28.3	0.008	80563.120	0.0
SO2	1A5a	Liquid	5.958	0.492	12.3	50.0	51.5	1.184	-91.737	0.1
SO2	1B1b		0.795	0.804	15.0		15.0	0.268	1.145	0.1
SO2	2B10a		13.894	1.393	15.0		15.0	0.804	-89.974	0.1
SO2	2C1		2.867	0.967	15.0		15.0	0.388	-66.281	0.1
SO2	2C2			0.002	15.0		15.0	0.000	NA	0.0
SO2	2C7a		0.000	0.111	29.4		29.4	0.020	55569.982	0.0
SO2	2C7b		0.004	0.028	15.0		15.0	0.000	650.000	0.0
SO2	2C7c		0.001	0.000	15.0		15.0	0.000	-94.091	0.0
SO2	2D3g		0.002	0.000	15.0		15.0	0.000	-99.660	0.0
SO2	2D3i		0.089	0.000	15.0		15.0	0.000	-99.482	0.0
SO2	2G		0.001	0.002	35.0	49.0	60.2	0.000	102.924	0.0
SO2	2H1		22.811	0.813	15.0		15.0	0.274	-96.434	0.1
SO2	2L			0.000	15.0		15.0	0.000	NA	0.0
<b>Total</b>			<b>248.820</b>	<b>23.296</b>			<b>5.5</b>		<b>-90.637</b>	<b>0.7</b>

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2021 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
NH3	1A1a		0.001	0.015	30.0		30.0	0.000	1371.200	0.0
NH3	1A2gvii	Liquid	0.002	0.003	4.9	80.0	80.2	0.000	25.467	0.0
NH3	1A2gviii			0.017	30.0		30.0	0.000	NA	0.0
NH3	1A3bi	Diesel oil	0.005	0.025	1.0	80.0	80.0	0.004	384.906	0.1
NH3	1A3bi	Gaseous		0.009	3.0	80.0	80.1	0.001	NA	0.0
NH3	1A3bi	Gasoline	0.235	0.558	2.0	80.0	80.0	2.071	137.755	1.8
NH3	1A3bii	Diesel oil	0.003	0.009	1.0	80.0	80.0	0.001	167.115	0.0
NH3	1A3bii	Gaseous		0.001	3.0	80.0	80.1	0.000	NA	0.0
NH3	1A3bii	Gasoline	0.002	0.001	2.0	80.0	80.0	0.000	-31.339	0.0
NH3	1A3biii	Diesel oil	0.010	0.030	1.0	80.0	80.0	0.006	198.342	0.1
NH3	1A3biii	Gaseous		0.000	3.0	80.0	80.1	0.000	NA	0.0
NH3	1A3biv	Diesel oil		0.000	1.0	80.0	80.0	0.000	NA	0.0
NH3	1A3biv	Gasoline	0.001	0.002	2.0	80.0	80.0	0.000	165.642	0.0
NH3	1A3c	Liquid	0.000	0.000	2.0	80.0	80.0	0.000	-61.561	0.0
NH3	1A3dii	Liquid	0.001	0.001	8.8	80.0	80.5	0.000	-17.212	0.0

NH3	1A4ai	Biomass	0.003	0.006	20.0	80.0	82.5	0.000	77.073	0.0
NH3	1A4aii	Liquid	0.001	0.001	12.9	80.0	81.0	0.000	-27.195	0.0
NH3	1A4bi	Biomass	0.907	1.109	20.0	80.0	82.5	8.680	22.282	3.6
NH3	1A4bii	Liquid	0.000	0.000	11.5	80.0	80.8	0.000	53.986	0.0
NH3	1A4ci	Biomass	0.011	0.010	20.0	80.0	82.5	0.001	-10.738	0.0
NH3	1A4cii	Liquid	0.002	0.002	14.5	80.0	81.3	0.000	-18.336	0.0
NH3	1A4ciii	Liquid	0.000	0.000	15.0	80.0	81.4	0.000	-42.558	0.0
NH3	1A5a	Liquid	0.000	0.000	30.0	80.0	85.4	0.000	16.376	0.0
NH3	1B1b		0.002	0.003	10.0	170.0	170.3	0.000	71.451	0.0
NH3	2B10a		0.582	0.301	100.0		100.0	0.941	-48.251	1.2
NH3	2C1		0.003	0.039	100.0		100.0	0.016	1200.000	0.2
NH3	2C7b		0.100	0.055	100.0		100.0	0.031	-45.000	0.2
NH3	2C7c		0.000	0.001	100.0		100.0	0.000	139.878	0.0
NH3	2D3e		0.061	0.004	200.0		200.0	0.001	-93.262	0.0
NH3	2D3g		0.024	0.002	41.8	100.0	108.4	0.000	-90.716	0.0
NH3	2D3i		0.097	0.172	100.0		100.0	0.307	77.389	0.7
NH3	2G		0.042	0.010	35.0	6.0	35.5	0.000	-77.503	0.0
NH3	2H1		0.542	0.170	100.0		100.0	0.300	-68.622	0.7
NH3	2L		0.020	0.007	197.6		197.6	0.002	-66.255	0.1
NH3	3B1a		5.687	5.583	3.0	186.0	186.0	1119.243	-1.833	40.9
NH3	3B1b		4.566	5.295	3.0	186.0	186.0	1006.954	15.969	38.8
NH3	3B2		0.067	0.118	5.0	186.0	186.1	0.504	75.460	0.9
NH3	3B3		3.767	2.619	5.0	186.0	186.1	246.453	-30.478	19.2
NH3	3B4d		0.006	0.008	5.0	186.0	186.1	0.002	32.649	0.1
NH3	3B4e		0.386	0.691	5.0	186.0	186.1	17.176	79.165	5.1
NH3	3B4gi		0.535	0.265	5.0	186.0	186.1	2.529	-50.407	1.9
NH3	3B4gii		0.204	0.589	5.0	186.0	186.1	12.475	189.112	4.3
NH3	3B4giii		0.013	0.085	5.0	186.0	186.1	0.260	568.022	0.6
NH3	3B4giv		0.104	0.036	5.0	186.0	186.1	0.047	-65.067	0.3
NH3	3B4h		1.873	1.636	5.0	186.0	186.1	96.130	-12.671	12.0
NH3	3Da1		3.733	1.978	10.0	40.0	41.2	6.902	-47.019	3.2
NH3	3Da2a		9.936	6.774	45.0	186.0	191.4	1744.100	-31.818	51.1
NH3	3Da2b		0.043	0.075	30.0	100.0	104.4	0.064	74.091	0.3
NH3	3Da2c		0.207	0.582	45.0	100.0	109.7	4.223	181.172	2.5
NH3	3Da3		1.640	1.439	45.0	186.0	191.4	78.707	-12.267	10.9
NH3	5B1		0.035	0.104	25.0	192.0	193.6	0.422	197.594	0.8
NH3	5B2		0.003	0.216	10.0	75.0	75.7	0.277	6288.237	0.6
NH3	5D1		0.275	0.385	98.7	100.0	140.5	3.036	39.817	2.1
<b>Total</b>			<b>35.872</b>	<b>31.042</b>			<b>66.0</b>		<b>-13.465</b>	<b>80.7</b>

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2021 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PM 2.5	1A1a	Biomass	0.265	0.074	4.9	160.0	160.1	0.695	-71.966	0.4
PM 2.5	1A1a	Liquid	0.704	0.013	2.1	100.0	100.0	0.008	-98.216	0.0
PM 2.5	1A1a	Other	0.001	0.003	10.0	160.0	160.3	0.001	456.754	0.0
PM 2.5	1A1a	Peat	0.467	0.064	2.0	120.0	120.0	0.286	-86.380	0.2
PM 2.5	1A1a	Solid	1.103	0.022	1.0	160.0	160.0	0.059	-98.043	0.1
PM 2.5	1A1b	Liquid	0.096	0.014	4.9	100.0	100.1	0.010	-85.033	0.0
PM 2.5	1A1b	Solid	0.000	0.000	3.0	160.0	160.0	0.000	-89.675	0.0
PM 2.5	1A2a	Biomass		0.000	10.0	160.0	160.3	0.000	NA	0.0
PM 2.5	1A2a	Liquid	0.069	0.000	4.9	100.0	100.1	0.000	-99.929	0.0
PM 2.5	1A2a	Solid	0.089	0.001	3.0	160.0	160.0	0.000	-98.426	0.0
PM 2.5	1A2b	Liquid	0.038	0.002	3.1	100.0	100.0	0.000	-94.079	0.0
PM 2.5	1A2b	Solid	0.014	0.000	4.7	160.0	160.1	0.000	-98.821	0.0
PM 2.5	1A2c	Biomass	0.016	0.001	9.8	160.0	160.3	0.000	-94.213	0.0
PM 2.5	1A2c	Liquid	0.169	0.016	3.9	100.0	100.1	0.013	-90.321	0.0
PM 2.5	1A2d	Biomass	9.011	0.820	1.8	160.0	160.0	84.518	-90.900	3.9
PM 2.5	1A2d	Liquid	0.652	0.037	1.9	100.0	100.0	0.068	-94.293	0.1
PM 2.5	1A2d	Other	0.005	0.002	10.0	160.0	160.3	0.001	-52.249	0.0
PM 2.5	1A2d	Peat	0.154	0.011	2.0	120.0	120.0	0.008	-93.100	0.0
PM 2.5	1A2d	Solid	0.110	0.000	5.0	160.0	160.1	0.000	-99.913	0.0
PM 2.5	1A2e	Biomass	0.011	0.001	9.2	160.0	160.3	0.000	-91.271	0.0
PM 2.5	1A2e	Liquid	0.143	0.002	3.6	100.0	100.1	0.000	-98.559	0.0
PM 2.5	1A2e	Other	0.000	0.000	10.0	160.0	160.3	0.000	245.896	0.0
PM 2.5	1A2e	Peat	0.023	0.000	5.0	120.0	120.1	0.000	-98.999	0.0
PM 2.5	1A2e	Solid	0.013	0.000	4.6	160.0	160.1	0.000	-97.853	0.0
PM 2.5	1A2f	Biomass	0.000	0.000	10.0	160.0	160.3	0.000	147.163	0.0
PM 2.5	1A2f	Liquid	0.219	0.005	3.7	100.0	100.1	0.001	-97.746	0.0
PM 2.5	1A2f	Other		0.000	10.0	160.0	160.3	0.000	NA	0.0
PM 2.5	1A2f	Solid	0.526	0.000	4.6	160.0	160.1	0.000	-99.929	0.0
PM 2.5	1A2gvii	Liquid	1.422	0.258	4.9	100.0	100.1	3.273	-81.872	0.8
PM 2.5	1A2gviii	Biomass	0.211	0.090	9.4	160.0	160.3	1.030	-57.166	0.4
PM 2.5	1A2gviii	Liquid	0.464	0.006	4.4	100.0	100.1	0.002	-98.609	0.0
PM 2.5	1A2gviii	Other	0.009	0.001	10.0	160.0	160.3	0.000	-94.173	0.0
PM 2.5	1A2gviii	Peat	0.001	0.001	10.0	120.0	120.4	0.000	-48.157	0.0
PM 2.5	1A3ai(i)	Liquid	0.003	0.002	5.0	100.0	100.1	0.000	-25.563	0.0
PM 2.5	1A3aii(i)	Liquid	0.002	0.001	4.9	100.0	100.1	0.000	-67.191	0.0
PM 2.5	1A3bi	Diesel oil	2.366	0.171	1.0	100.0	100.0	1.428	-92.793	0.5
PM 2.5	1A3bi	Gaseous		0.000	3.0	100.0	100.0	0.000	NA	0.0

PM 2.5	1A3bi	Gasoline	0.174	0.032	2.0	100.0	100.0	0.049	-81.816	0.1
PM 2.5	1A3bii	Diesel oil	1.074	0.184	1.0	100.0	100.0	1.663	-82.861	0.6
PM 2.5	1A3bii	Gaseous		0.000	3.0	100.0	100.0	0.000	NA	0.0
PM 2.5	1A3bii	Gasoline	0.006	0.000	2.0	100.0	100.0	0.000	-97.741	0.0
PM 2.5	1A3biii	Diesel oil	4.287	0.118	1.0	100.0	100.0	0.681	-97.252	0.4
PM 2.5	1A3biii	Gaseous		0.000	3.0	100.0	100.0	0.000	NA	0.0
PM 2.5	1A3biv	Diesel oil		0.006	1.0	100.0	100.0	0.002	NA	0.0
PM 2.5	1A3biv	Gasoline	0.057	0.012	2.0	100.0	100.0	0.007	-78.520	0.0
PM 2.5	1A3bvi		0.542	0.616	1.0	100.0	100.0	18.615	13.694	1.8
PM 2.5	1A3bvii		0.404	0.456	1.0	100.0	100.0	10.194	12.725	1.4
PM 2.5	1A3c	Liquid	0.084	0.029	2.0	100.0	100.0	0.042	-65.489	0.1
PM 2.5	1A3dii	Liquid	0.548	0.334	8.8	100.0	100.4	5.532	-39.025	1.0
PM 2.5	1A4ai	Biomass	0.030	0.054	20.0	80.0	82.5	0.097	80.359	0.1
PM 2.5	1A4ai	Liquid	0.506	0.089	13.0	100.0	100.8	0.395	-82.431	0.3
PM 2.5	1A4ai	Peat	0.002	0.002	15.0	160.0	160.7	0.000	13.576	0.0
PM 2.5	1A4aii	Liquid	0.746	0.077	12.9	100.0	100.8	0.299	-89.630	0.2
PM 2.5	1A4bi	Biomass	7.392	7.902	20.0	80.0	82.5	2084.563	6.902	19.5
PM 2.5	1A4bi	Liquid	0.219	0.042	15.0	100.0	101.1	0.088	-80.897	0.1
PM 2.5	1A4bi	Other	0.000	0.000	10.0	160.0	160.3	0.000	-97.674	0.0
PM 2.5	1A4bi	Peat	0.208	0.053	15.0	160.0	160.7	0.355	-74.568	0.3
PM 2.5	1A4bii	Liquid	0.242	0.125	11.5	100.0	100.7	0.780	-48.206	0.4
PM 2.5	1A4ci	Biomass	0.101	0.090	20.0	80.0	82.5	0.272	-10.335	0.2
PM 2.5	1A4ci	Liquid	0.167	0.009	14.6	100.0	101.1	0.004	-94.896	0.0
PM 2.5	1A4ci	Peat	0.008	0.024	10.0	160.0	160.3	0.072	197.859	0.1
PM 2.5	1A4ci	Solid	0.001	0.000	20.0	160.0	161.2	0.000	-59.209	0.0
PM 2.5	1A4cii	Liquid	1.620	0.149	14.5	100.0	101.0	1.107	-90.829	0.5
PM 2.5	1A4ciii	Liquid	0.072	0.041	15.0	100.0	101.1	0.085	-42.518	0.1
PM 2.5	1A5a	Biomass	0.002	0.382	10.0	160.0	160.3	18.419	16540.838	1.8
PM 2.5	1A5a	Liquid	0.308	0.051	15.4	100.0	101.2	0.133	-83.265	0.2
PM 2.5	1B1b		0.003	0.007	40.0	200.0	204.0	0.010	106.316	0.0
PM 2.5	1B1c		1.085	0.138	10.0	200.0	200.2	3.753	-87.270	0.8
PM 2.5	1B2aiv		0.189	0.001	80.0	200.0	215.4	0.000	-99.724	0.0
PM 2.5	1B2av		0.005	0.000	40.0	200.0	204.0	0.000	-95.440	0.0
PM 2.5	2A2		0.026	0.000	40.0	200.0	204.0	0.000	-99.355	0.0
PM 2.5	2A3		0.124	0.004	40.0	200.0	204.0	0.003	-96.947	0.0
PM 2.5	2A5a		0.068	0.000	40.0	200.0	204.0	0.000	-99.637	0.0
PM 2.5	2A5b		0.504	0.001	40.0	200.0	204.0	0.000	-99.723	0.0
PM 2.5	2A5c		0.049	0.017	30.0	200.0	202.2	0.058	-65.226	0.1
PM 2.5	2B10a		0.738	0.156	80.0	200.0	215.4	5.577	-78.806	1.0
PM 2.5	2B10b		0.001	0.002	40.0	200.0	204.0	0.000	66.312	0.0
PM 2.5	2B6		0.149	0.001	40.0	200.0	204.0	0.000	-99.589	0.0
PM 2.5	2C1		3.152	0.209	40.0	200.0	204.0	8.955	-93.356	1.3
PM 2.5	2C2		0.014	0.078	40.0	200.0	204.0	1.254	460.515	0.5
PM 2.5	2C3		0.001	0.000	60.0	200.0	208.8	0.000	-84.197	0.0
PM 2.5	2C7a		0.026	0.000	60.0	200.0	208.8	0.000	-98.615	0.0
PM 2.5	2C7c		0.201	0.006	40.0	200.0	204.0	0.008	-96.955	0.0
PM 2.5	2C7d		0.001	0.001	30.0	100.0	104.4	0.000	18.723	0.0
PM 2.5	2D3b		0.087	0.061	30.0	200.0	202.2	0.735	-30.380	0.4

PM 2.5	2D3d		0.000	0.001	40.0	200.0	204.0	0.000	168.772	0.0
PM 2.5	2D3g		0.016	0.001	40.0	200.0	204.0	0.000	-91.345	0.0
PM 2.5	2D3i		0.064	0.056	40.0	200.0	204.0	0.630	-13.605	0.3
PM 2.5	2G		0.153	0.062	35.0	73.0	81.0	0.124	-59.484	0.2
PM 2.5	2H1		1.420	0.095	80.0	200.0	215.4	2.067	-93.293	0.6
PM 2.5	2H2		0.303	0.403	40.0	200.0	204.0	33.126	33.123	2.5
PM 2.5	2I		0.131	0.000	40.0	200.0	204.0	0.000	-99.829	0.0
PM 2.5	2L		0.054	0.006	40.0	200.0	204.0	0.008	-88.139	0.0
PM 2.5	3B1a		0.132	0.054	3.0	200.0	200.0	0.567	-59.388	0.3
PM 2.5	3B1b		0.079	0.046	3.0	200.0	200.0	0.424	-41.293	0.3
PM 2.5	3B2		0.001	0.001	5.0	200.0	200.1	0.000	78.097	0.0
PM 2.5	3B3		0.004	0.002	5.0	200.0	200.1	0.001	-50.368	0.0
PM 2.5	3B4d		0.000	0.000	5.0	200.0	200.1	0.000	41.083	0.0
PM 2.5	3B4e		0.004	0.006	5.0	200.0	200.1	0.008	53.501	0.0
PM 2.5	3B4gi		0.014	0.011	5.0	200.0	200.1	0.022	-25.005	0.1
PM 2.5	3B4gii		0.003	0.009	5.0	200.0	200.1	0.016	193.553	0.1
PM 2.5	3B4giii		0.001	0.003	5.0	200.0	200.1	0.002	379.432	0.0
PM 2.5	3B4giv		0.032	0.013	5.0	200.0	200.1	0.033	-59.873	0.1
PM 2.5	3B4h		0.013	0.008	5.0	200.0	200.1	0.013	-38.916	0.0
PM 2.5	3Dc		0.268	0.212	3.0	200.0	200.0	8.867	-20.714	1.3
PM 2.5	5A		0.000	0.000	15.0	385.0	385.3	0.000	-53.823	0.0
PM 2.5	5C1bv		0.000	0.001	10.0	900.0	900.1	0.006	358.166	0.0
PM 2.5	5E		0.301	0.101	35.0	100.0	105.9	0.565	-66.360	0.3
<b>Total</b>			<b>47.150</b>	<b>14.271</b>			<b>48.0</b>		<b>-69.732</b>	<b>20.5</b>

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2021 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PM10	1A1a	Biomass	0.626	0.269	4.9	160.0	160.1	2.405	-56.981	0.8
PM10	1A1a	Liquid	1.057	0.020	2.1	100.0	100.0	0.005	-98.107	0.0
PM10	1A1a	Other	0.002	0.008	10.0	160.0	160.3	0.002	358.438	0.0
PM10	1A1a	Peat	1.337	0.263	2.0	120.0	120.0	1.284	-80.370	0.6
PM10	1A1a	Solid	4.794	0.071	1.0	160.0	160.0	0.168	-98.516	0.2
PM10	1A1b	Liquid	0.223	0.018	4.9	100.0	100.1	0.004	-91.790	0.0
PM10	1A1b	Solid	0.002	0.000	3.0	160.0	160.0	0.000	-89.675	0.0
PM10	1A2a	Biomass		0.000	10.0	160.0	160.3	0.000	NA	0.0
PM10	1A2a	Liquid	0.117	0.000	4.9	100.0	100.1	0.000	-99.830	0.0
PM10	1A2a	Solid	0.398	0.007	3.0	160.0	160.0	0.002	-98.237	0.0
PM10	1A2b	Liquid	0.059	0.004	3.1	100.0	100.0	0.000	-92.745	0.0

PM10	1A2b	Solid	0.072	0.001	4.7	160.0	160.1	0.000	-98.592	0.0
PM10	1A2c	Biomass	0.025	0.001	9.8	160.0	160.3	0.000	-96.591	0.0
PM10	1A2c	Liquid	0.267	0.043	3.9	100.0	100.1	0.024	-83.936	0.1
PM10	1A2d	Biomass	11.986	1.499	1.8	160.0	160.0	74.385	-87.494	4.6
PM10	1A2d	Gaseous	0.069	0.007	2.0	100.0	100.0	0.001	-89.297	0.0
PM10	1A2d	Liquid	0.907	0.027	1.8	100.0	100.0	0.009	-97.077	0.1
PM10	1A2d	Other	0.011	0.006	10.0	160.0	160.3	0.001	-43.904	0.0
PM10	1A2d	Peat	0.326	0.023	2.0	120.0	120.0	0.010	-92.936	0.1
PM10	1A2d	Solid	0.493	0.000	5.0	160.0	160.1	0.000	-99.942	0.0
PM10	1A2e	Biomass	0.040	0.005	9.2	160.0	160.3	0.001	-87.738	0.0
PM10	1A2e	Liquid	0.221	0.004	3.6	100.0	100.1	0.000	-98.170	0.0
PM10	1A2e	Other	0.000	0.001	10.0	160.0	160.3	0.000	245.896	0.0
PM10	1A2e	Peat	0.111	0.001	5.0	120.0	120.1	0.000	-98.788	0.0
PM10	1A2e	Solid	0.065	0.001	4.6	160.0	160.1	0.000	-97.853	0.0
PM10	1A2f	Biomass	0.000	0.002	10.0	160.0	160.3	0.000	604.574	0.0
PM10	1A2f	Liquid	0.358	0.015	3.7	100.0	100.1	0.003	-95.872	0.0
PM10	1A2f	Other		0.001	10.0	160.0	160.3	0.000	NA	0.0
PM10	1A2f	Solid	0.971	0.004	4.6	160.0	160.1	0.001	-99.545	0.0
PM10	1A2gvii	Liquid	1.422	0.258	4.9	100.0	100.1	0.862	-81.872	0.5
PM10	1A2gviii	Biomass	0.678	0.207	9.4	160.0	160.3	1.418	-69.531	0.6
PM10	1A2gviii	Liquid	0.737	0.015	4.4	100.0	100.1	0.003	-98.018	0.0
PM10	1A2gviii	Other	0.048	0.002	10.0	160.0	160.3	0.000	-96.304	0.0
PM10	1A2gviii	Peat	0.005	0.003	10.0	120.0	120.4	0.000	-43.618	0.0
PM10	1A3ai(i)	Liquid	0.003	0.002	5.0	100.0	100.1	0.000	-25.563	0.0
PM10	1A3aii(i)	Liquid	0.002	0.001	4.9	100.0	100.1	0.000	-67.191	0.0
PM10	1A3bi	Diesel oil	2.366	0.171	1.0	100.0	100.0	0.376	-92.793	0.3
PM10	1A3bi	Gaseous		0.000	3.0	100.0	100.0	0.000	NA	0.0
PM10	1A3bi	Gasoline	0.174	0.032	2.0	100.0	100.0	0.013	-81.816	0.1
PM10	1A3bii	Diesel oil	1.074	0.184	1.0	100.0	100.0	0.438	-82.861	0.4
PM10	1A3bii	Gaseous		0.000	3.0	100.0	100.0	0.000	NA	0.0
PM10	1A3bii	Gasoline	0.006	0.000	2.0	100.0	100.0	0.000	-97.741	0.0
PM10	1A3biii	Diesel oil	4.287	0.118	1.0	100.0	100.0	0.179	-97.252	0.2
PM10	1A3biii	Gaseous		0.000	3.0	100.0	100.0	0.000	NA	0.0
PM10	1A3biv	Diesel oil		0.006	1.0	100.0	100.0	0.000	NA	0.0
PM10	1A3biv	Gasoline	0.057	0.012	2.0	100.0	100.0	0.002	-78.520	0.0
PM10	1A3bvi		0.982	1.117	1.0	100.0	100.0	16.149	13.742	2.1
PM10	1A3bvii		4.766	5.391	1.0	100.0	100.0	375.902	13.135	10.3
PM10	1A3c	Liquid	0.089	0.031	2.0	100.0	100.0	0.012	-65.489	0.1
PM10	1A3dii	Liquid	0.565	0.340	8.8	100.0	100.4	1.507	-39.839	0.7
PM10	1A4ai	Biomass	0.032	0.056	20.0	80.0	82.5	0.027	74.460	0.1
PM10	1A4ai	Liquid	0.814	0.158	13.0	100.0	100.8	0.327	-80.621	0.3
PM10	1A4ai	Peat	0.009	0.010	15.0	160.0	160.7	0.003	13.576	0.0
PM10	1A4aii	Liquid	0.746	0.077	12.9	100.0	100.8	0.079	-89.630	0.1
PM10	1A4bi	Biomass	7.630	8.157	20.0	80.0	82.5	584.995	6.902	12.9
PM10	1A4bi	Liquid	0.336	0.055	15.0	100.0	101.1	0.040	-83.734	0.1
PM10	1A4bi	Other	0.000	0.000	10.0	160.0	160.3	0.000	-97.674	0.0
PM10	1A4bi	Peat	0.234	0.060	15.0	160.0	160.7	0.118	-74.568	0.2
PM10	1A4bii	Liquid	0.242	0.125	11.5	100.0	100.7	0.205	-48.206	0.2

PM10	1A4ci	Biomass	0.104	0.095	20.0	80.0	82.5	0.080	-8.458	0.2
PM10	1A4ci	Liquid	0.269	0.021	14.6	100.0	101.1	0.006	-92.048	0.0
PM10	1A4ci	Peat	0.042	0.124	10.0	160.0	160.3	0.510	197.859	0.4
PM10	1A4ci	Solid	0.003	0.002	20.0	160.0	161.2	0.000	-51.197	0.0
PM10	1A4cii	Liquid	1.620	0.149	14.5	100.0	101.0	0.292	-90.829	0.3
PM10	1A4ciii	Liquid	0.077	0.044	15.0	100.0	101.1	0.026	-42.518	0.1
PM10	1A5a	Biomass	0.012	1.987	10.0	160.0	160.3	131.171	16540.838	6.1
PM10	1A5a	Liquid	0.485	0.076	15.4	100.0	101.2	0.076	-84.325	0.1
PM10	1B1b		0.008	0.016	40.0	200.0	204.0	0.015	106.316	0.1
PM10	1B1c		1.544	0.197	10.0	200.0	200.2	2.004	-87.270	0.8
PM10	1B2aiv		0.312	0.002	80.0	200.0	215.4	0.000	-99.507	0.0
PM10	1B2av		0.005	0.000	40.0	200.0	204.0	0.000	-95.440	0.0
PM10	2A2		0.072	0.001	40.0	200.0	204.0	0.000	-98.822	0.0
PM10	2A3		0.142	0.004	40.0	200.0	204.0	0.001	-97.005	0.0
PM10	2A5a		0.230	0.002	40.0	200.0	204.0	0.000	-98.939	0.0
PM10	2A5b		0.796	0.011	40.0	200.0	204.0	0.006	-98.659	0.0
PM10	2A5c		0.477	0.162	30.0	200.0	202.2	1.393	-65.989	0.6
PM10	2B10a		1.156	0.361	80.0	200.0	215.4	7.799	-68.812	1.5
PM10	2B10b		0.007	0.012	40.0	200.0	204.0	0.008	66.227	0.0
PM10	2B6		0.198	0.001	40.0	200.0	204.0	0.000	-99.589	0.0
PM10	2C1		4.059	0.227	40.0	200.0	204.0	2.761	-94.420	0.9
PM10	2C2		0.020	0.111	40.0	200.0	204.0	0.663	460.515	0.4
PM10	2C3		0.002	0.000	60.0	200.0	208.8	0.000	-84.197	0.0
PM10	2C7a		0.034	0.000	60.0	200.0	208.8	0.000	-98.733	0.0
PM10	2C7c		0.408	0.007	40.0	200.0	204.0	0.003	-98.224	0.0
PM10	2C7d		0.006	0.007	30.0	100.0	104.4	0.001	18.723	0.0
PM10	2D3b		0.095	0.066	30.0	200.0	202.2	0.230	-30.380	0.3
PM10	2D3d		0.000	0.001	40.0	200.0	204.0	0.000	168.772	0.0
PM10	2D3g		0.017	0.002	40.0	200.0	204.0	0.000	-86.929	0.0
PM10	2D3i		0.187	0.060	40.0	200.0	204.0	0.194	-67.950	0.2
PM10	2G		0.153	0.062	35.0	60.0	69.5	0.024	-59.464	0.1
PM10	2H1		1.965	0.149	80.0	200.0	215.4	1.341	-92.391	0.6
PM10	2H2		0.320	0.417	40.0	200.0	204.0	9.373	30.306	1.6
PM10	2I		0.271	0.020	40.0	200.0	204.0	0.021	-92.725	0.1
PM10	2L		0.081	0.010	40.0	200.0	204.0	0.005	-87.573	0.0
PM10	3B1a		0.203	0.083	3.0	200.0	200.0	0.353	-59.388	0.3
PM10	3B1b		0.122	0.072	3.0	200.0	200.0	0.265	-41.544	0.3
PM10	3B2		0.002	0.004	5.0	200.0	200.1	0.001	78.097	0.0
PM10	3B3		0.086	0.045	5.0	200.0	200.1	0.103	-48.043	0.2
PM10	3B4d		0.000	0.000	5.0	200.0	200.1	0.000	41.083	0.0
PM10	3B4e		0.006	0.010	5.0	200.0	200.1	0.005	53.501	0.0
PM10	3B4gi		0.189	0.142	5.0	200.0	200.1	1.039	-25.005	0.5
PM10	3B4gii		0.031	0.090	5.0	200.0	200.1	0.416	193.553	0.3
PM10	3B4giii		0.003	0.016	5.0	200.0	200.1	0.013	379.432	0.1
PM10	3B4giv		0.227	0.091	5.0	200.0	200.1	0.429	-59.901	0.3
PM10	3B4h		0.027	0.016	5.0	200.0	200.1	0.014	-38.916	0.1
PM10	3Dc		4.897	3.843	3.0	200.0	200.0	763.857	-21.536	14.7
PM10	5A		0.001	0.001	15.0	379.0	379.3	0.000	-53.823	0.0

PM10	5C1bv	0.000	0.001	10.0	900.0	900.1	0.002	358.166	0.0
PM10	5E	0.301	0.101	35.0	100.0	105.9	0.149	-66.360	0.2
<b>Total</b>		<b>73.970</b>	<b>27.809</b>			<b>44.6</b>		<b>-62.404</b>	<b>23.7</b>

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2021 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
TSP	1A1a	Bio-mass	1.331	0.526	6.2	60.0	60.3	0.536	-60.504	0.5
TSP	1A1a	Liquid	1.214	0.030	7.9	50.0	50.6	0.001	-97.528	0.0
TSP	1A1a	Other	0.013	0.018	8.2	80.0	80.4	0.001	35.609	0.0
TSP	1A1a	Peat	2.295	0.872	2.1	60.0	60.0	1.464	-61.986	0.8
TSP	1A1a	Solid	7.164	0.087	10.0		10.0	0.000	-98.786	0.0
TSP	1A1b	Liquid	0.536	0.066	10.0		10.0	0.000	-87.706	0.0
TSP	1A1b	Solid	0.009	0.001	10.0		10.0	0.000	-89.675	0.0
TSP	1A2a	Bio-mass		0.000	10.0		10.0	0.000	NA	0.0
TSP	1A2a	Liquid	0.157	0.000	6.1	50.0	50.4	0.000	-99.750	0.0
TSP	1A2a	Solid	0.941	0.018	10.0		10.0	0.000	-98.080	0.0
TSP	1A2b	Liquid	0.069	0.005	5.7	50.0	50.3	0.000	-92.629	0.0
TSP	1A2b	Solid	0.277	0.004	10.0		10.0	0.000	-98.592	0.0
TSP	1A2c	Bio-mass	0.029	0.001	6.8	60.0	60.4	0.000	-95.512	0.0
TSP	1A2c	Liquid	0.299	0.051	9.8	50.0	50.9	0.004	-83.056	0.0
TSP	1A2d	Bio-mass	14.007	1.686	9.8	60.0	60.8	5.609	-87.962	1.5
TSP	1A2d	Gaseous	0.083	0.009	9.3	80.0	80.5	0.000	-89.663	0.0
TSP	1A2d	Liquid	1.441	0.044	8.6	50.0	50.7	0.003	-96.980	0.0
TSP	1A2d	Other	0.017	0.013	10.0	80.0	80.6	0.001	-23.035	0.0
TSP	1A2d	Peat	0.435	0.030	10.0		10.0	0.000	-93.012	0.0
TSP	1A2d	Solid	0.715	0.000	10.0		10.0	0.000	-99.947	0.0
TSP	1A2e	Bio-mass	0.073	0.005	7.2	60.0	60.4	0.000	-93.243	0.0
TSP	1A2e	Liquid	0.260	0.005	3.5	50.0	50.1	0.000	-98.027	0.0
TSP	1A2e	Other	0.001	0.003	7.7	80.0	80.4	0.000	245.880	0.0
TSP	1A2e	Peat	0.169	0.005	10.0		10.0	0.000	-97.240	0.0
TSP	1A2e	Solid	0.251	0.004	4.7	60.0	60.2	0.000	-98.552	0.0
TSP	1A2f	Bio-mass	0.001	0.009	10.0		10.0	0.000	583.673	0.0
TSP	1A2f	Liquid	0.449	0.026	7.9	50.0	50.6	0.001	-94.244	0.0
TSP	1A2f	Other	0.029	0.002	10.0		10.0	0.000	-92.971	0.0
TSP	1A2f	Solid	1.954	0.012	10.0		10.0	0.000	-99.363	0.0
TSP	1A2gvii	Liquid	1.422	0.258	4.9	50.0	50.2	0.090	-81.872	0.2

TSP	1A2gviii	Bio-mass	1.586	0.363	8.4	60.0	60.6	0.258	-77.115	0.3
TSP	1A2gviii	Liquid	0.821	0.023	5.6	50.0	50.3	0.001	-97.174	0.0
TSP	1A2gviii	Other	0.189	0.003	10.0		10.0	0.000	-98.545	0.0
TSP	1A2gviii	Peat	0.007	0.005	10.0		10.0	0.000	-35.068	0.0
TSP	1A3ai(i)	Liquid	0.003	0.002	5.0	50.0	50.2	0.000	-25.563	0.0
TSP	1A3aii(i)	Liquid	0.002	0.001	4.9	50.0	50.2	0.000	-67.191	0.0
TSP	1A3bi	Diesel oil	2.366	0.171	1.0	50.0	50.0	0.039	-92.793	0.1
TSP	1A3bi	Gaseous		0.000	3.0	50.0	50.1	0.000	NA	0.0
TSP	1A3bi	Gasoline	0.174	0.032	2.0	50.0	50.0	0.001	-81.816	0.0
TSP	1A3bii	Diesel oil	1.074	0.184	1.0	50.0	50.0	0.045	-82.861	0.1
TSP	1A3bii	Gaseous		0.000	3.0	50.0	50.1	0.000	NA	0.0
TSP	1A3bii	Gasoline	0.006	0.000	2.0	50.0	50.0	0.000	-97.741	0.0
TSP	1A3biii	Diesel oil	4.287	0.118	1.0	50.0	50.0	0.019	-97.252	0.1
TSP	1A3biii	Gaseous		0.000	3.0	50.0	50.1	0.000	NA	0.0
TSP	1A3biv	Diesel oil		0.006	1.0	50.0	50.0	0.000	NA	0.0
TSP	1A3biv	Gasoline	0.057	0.012	2.0	50.0	50.0	0.000	-78.520	0.0
TSP	1A3bvi		1.325	1.506	1.0	50.0	50.0	3.029	13.700	1.1
TSP	1A3bvii		9.531	10.783	1.0	50.0	50.0	155.238	13.135	7.7
TSP	1A3c	Liquid	0.094	0.032	2.0	50.0	50.0	0.001	-65.489	0.0
TSP	1A3dii	Liquid	0.565	0.340	8.8	50.0	50.8	0.159	-39.839	0.2
TSP	1A4ai	Bio-mass	0.037	0.058	20.0	80.0	82.5	0.012	57.192	0.1
TSP	1A4ai	Liquid	0.994	0.211	13.0	50.0	51.7	0.064	-78.752	0.2
TSP	1A4ai	Peat	0.034	0.038	13.2	80.0	81.1	0.005	13.576	0.0
TSP	1A4aii	Liquid	0.746	0.077	12.9	50.0	51.6	0.009	-89.630	0.1
TSP	1A4bi	Bio-mass	7.948	8.496	20.0	80.0	82.5	262.061	6.902	10.0
TSP	1A4bi	Liquid	0.425	0.061	15.0	50.0	52.2	0.005	-85.540	0.0
TSP	1A4bi	Other	0.000	0.000	10.0	80.0	80.6	0.000	-97.674	0.0
TSP	1A4bi	Peat	0.260	0.066	15.0	80.0	81.4	0.015	-74.568	0.1
TSP	1A4bii	Liquid	0.242	0.125	11.5	50.0	51.3	0.022	-48.206	0.1
TSP	1A4ci	Bio-mass	0.108	0.100	19.3	80.0	82.3	0.036	-7.363	0.1
TSP	1A4ci	Liquid	0.329	0.036	14.6	50.0	52.1	0.002	-89.104	0.0
TSP	1A4ci	Peat	0.160	0.477	10.0	80.0	80.6	0.788	197.859	0.6
TSP	1A4ci	Solid	0.008	0.003	20.0	80.0	82.5	0.000	-56.422	0.0
TSP	1A4cii	Liquid	1.620	0.149	14.5	50.0	52.1	0.032	-90.829	0.1
TSP	1A4ciii	Liquid	0.077	0.044	15.0	50.0	52.2	0.003	-42.518	0.0
TSP	1A5a	Bio-mass	0.046	7.641	10.0	80.0	80.6	202.612	16540.838	8.8
TSP	1A5a	Liquid	0.591	0.096	15.4	50.0	52.3	0.014	-83.730	0.1
TSP	1B1b		0.019	0.039	20.0		20.0	0.000	106.316	0.0
TSP	1B1c		2.363	0.301	10.0	200.0	200.2	1.937	-87.270	0.9
TSP	1B2aiv		0.442	0.002	40.0		40.0	0.000	-99.555	0.0
TSP	1B2av		0.005	0.000	20.0		20.0	0.000	-95.440	0.0
TSP	2A2		0.174	0.002	20.0		20.0	0.000	-98.755	0.0
TSP	2A3		0.158	0.005	20.0		20.0	0.000	-97.016	0.0
TSP	2A5a		0.400	0.005	19.0	200.0	200.9	0.001	-98.759	0.0
TSP	2A5b		1.014	0.034	29.0	200.0	202.1	0.025	-96.633	0.1

TSP	2A5c	1.217	0.423	30.0	200.0	202.2	3.916	-65.191	1.2
TSP	2B10a	1.409	0.413	40.0		40.0	0.146	-70.683	0.2
TSP	2B10b	0.023	0.039	30.0	200.0	202.2	0.033	66.214	0.1
TSP	2B6	0.248	0.001	20.0		20.0	0.000	-99.589	0.0
TSP	2C1	5.545	0.279	18.1		18.1	0.014	-94.969	0.1
TSP	2C2	0.023	0.131	20.0		20.0	0.004	460.515	0.0
TSP	2C3	0.003	0.000	19.1		19.1	0.000	-84.197	0.0
TSP	2C7a	0.043	0.001	38.9		38.9	0.000	-98.364	0.0
TSP	2C7c	0.855	0.011	20.0		20.0	0.000	-98.674	0.0
TSP	2C7d	0.012	0.015	30.0	100.0	104.4	0.001	18.723	0.0
TSP	2D3b	0.126	0.088	30.0	200.0	202.2	0.169	-30.380	0.3
TSP	2D3d	0.001	0.001	20.0		20.0	0.000	168.772	0.0
TSP	2D3g	0.019	0.003	20.0		20.0	0.000	-84.719	0.0
TSP	2D3i	0.598	0.064	20.0		20.0	0.001	-89.231	0.0
TSP	2G	0.153	0.062	35.0	55.0	65.2	0.009	-59.460	0.1
TSP	2H1	2.389	0.160	40.0		40.0	0.022	-93.285	0.1
TSP	2H2	0.329	0.433	25.8	200.0	201.7	4.079	31.875	1.3
TSP	2I	0.590	0.106	20.0		20.0	0.002	-81.981	0.0
TSP	2L	0.093	0.013	20.0		20.0	0.000	-85.488	0.0
TSP	3B1a	0.445	0.181	3.0	200.0	200.0	0.699	-59.388	0.5
TSP	3B1b	0.264	0.155	3.0	200.0	200.0	0.510	-41.435	0.4
TSP	3B2	0.005	0.009	5.0	200.0	200.1	0.002	78.097	0.0
TSP	3B3	0.518	0.285	5.0	200.0	200.1	1.738	-44.896	0.8
TSP	3B4d	0.000	0.000	5.0	200.0	200.1	0.000	41.083	0.0
TSP	3B4e	0.014	0.021	5.0	200.0	200.1	0.010	53.501	0.1
TSP	3B4gi	0.897	0.673	5.0	200.0	200.1	9.680	-25.005	1.9
TSP	3B4gii	0.061	0.179	5.0	200.0	200.1	0.687	193.553	0.5
TSP	3B4giii	0.003	0.016	5.0	200.0	200.1	0.005	379.432	0.0
TSP	3B4giv	0.234	0.093	5.0	200.0	200.1	0.187	-60.110	0.3
TSP	3B4h	0.060	0.037	5.0	200.0	200.1	0.029	-38.916	0.1
TSP	3Dc	4.897	3.843	3.0	200.0	200.0	315.359	-21.536	11.0
TSP	5A	0.003	0.001	15.0	377.0	377.3	0.000	-53.823	0.0
TSP	5C1bv	0.000	0.001	10.0	900.0	900.1	0.001	358.166	0.0
TSP	5E	0.301	0.101	35.0	100.0	105.9	0.061	-66.360	0.2
<b>Total</b>		<b>98.738</b>	<b>43.281</b>			<b>31.2</b>		<b>-56.166</b>	<b>19.3</b>

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2021 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
BC	1A1a	Biomass	0.005	0.002	4.9	320.0	320.0	0.054	-53.003	0.1
BC	1A1a	Liquid	0.177	0.003	2.1	200.0	200.0	0.029	-98.369	0.1
BC	1A1a	Other	0.000	0.000	10.0	320.0	320.2	0.000	669.598	0.0
BC	1A1a	Peat	0.015	0.002	2.0	280.0	280.0	0.030	-86.380	0.1
BC	1A1a	Solid	0.024	0.000	1.0	320.0	320.0	0.002	-98.043	0.0
BC	1A1b	Liquid	0.011	0.001	4.9	200.0	200.1	0.001	-94.389	0.0
BC	1A1b	Solid	0.000	0.000	3.0	320.0	320.0	0.000	-90.614	0.0
BC	1A2a	Biomass		0.000	10.0	320.0	320.2	0.000	NA	0.0
BC	1A2a	Liquid	0.015	0.000	4.9	200.0	200.1	0.000	-99.891	0.0
BC	1A2a	Solid	0.002	0.000	3.0	320.0	320.0	0.000	-98.536	0.0
BC	1A2b	Liquid	0.011	0.001	3.1	200.0	200.0	0.001	-95.082	0.0
BC	1A2b	Solid	0.000	0.000	4.7	320.0	320.0	0.000	-98.893	0.0
BC	1A2c	Biomass	0.001	0.000	9.8	320.0	320.1	0.000	-94.046	0.0
BC	1A2c	Liquid	0.050	0.005	3.9	200.0	200.0	0.071	-90.972	0.1
BC	1A2d	Biomass	0.031	0.007	4.5	320.0	320.0	0.416	-78.032	0.3
BC	1A2d	Liquid	0.103	0.004	1.9	200.0	200.0	0.066	-95.755	0.1
BC	1A2d	Other	0.002	0.000	10.0	320.0	320.2	0.001	-82.306	0.0
BC	1A2d	Peat	0.005	0.000	2.0	280.0	280.0	0.001	-93.100	0.0
BC	1A2d	Solid	0.002	0.000	5.0	320.0	320.0	0.000	-99.913	0.0
BC	1A2e	Biomass	0.000	0.000	9.2	320.0	320.1	0.000	-91.271	0.0
BC	1A2e	Liquid	0.043	0.001	3.6	200.0	200.0	0.001	-98.550	0.0
BC	1A2e	Other	0.000	0.000	10.0	320.0	320.2	0.000	245.896	0.0
BC	1A2e	Peat	0.001	0.000	5.0	280.0	280.0	0.000	-98.999	0.0
BC	1A2e	Solid	0.000	0.000	4.6	320.0	320.0	0.000	-97.942	0.0
BC	1A2f	Biomass	0.000	0.000	10.0	320.0	320.2	0.000	147.163	0.0
BC	1A2f	Liquid	0.066	0.001	3.7	200.0	200.0	0.005	-98.158	0.0
BC	1A2f	Other		0.000	10.0	320.0	320.2	0.000	NA	0.0
BC	1A2f	Solid	0.012	0.000	4.6	320.0	320.0	0.000	-99.934	0.0
BC	1A2gvii	Liquid	0.877	0.157	4.9	200.0	200.1	85.755	-82.109	4.4
BC	1A2gviii	Biomass	0.007	0.003	9.4	320.0	320.1	0.080	-58.183	0.1
BC	1A2gviii	Liquid	0.140	0.002	4.4	200.0	200.0	0.012	-98.689	0.1
BC	1A2gviii	Other	0.002	0.000	10.0	320.0	320.2	0.000	-97.907	0.0
BC	1A2gviii	Peat	0.000	0.000	10.0	280.0	280.2	0.000	-48.157	0.0
BC	1A3ai(i)	Liquid	0.002	0.001	5.0	200.0	200.1	0.005	-25.563	0.0
BC	1A3aii(i)	Liquid	0.001	0.000	4.9	200.0	200.1	0.000	-67.191	0.0
BC	1A3bi	Diesel oil	1.349	0.097	1.0	200.0	200.0	32.894	-92.793	2.7

BC	1A3bi	Gasoline	0.021	0.004	2.0	200.0	200.0	0.050	-81.816	0.1
BC	1A3bii	Diesel oil	0.591	0.101	1.0	200.0	200.0	35.669	-82.861	2.8
BC	1A3bii	Gasoline	0.000	0.000	2.0	200.0	200.0	0.000	-97.741	0.0
BC	1A3biii	Diesel oil	2.272	0.062	1.0	200.0	200.0	13.575	-97.252	1.7
BC	1A3biv	Diesel oil		0.003	1.0	200.0	200.0	0.039	NA	0.1
BC	1A3biv	Gasoline	0.006	0.001	2.0	200.0	200.0	0.006	-78.520	0.0
BC	1A3bvi		0.140	0.159	1.0	200.0	200.0	88.083	13.602	4.4
BC	1A3bvii		0.079	0.089	1.0	200.0	200.0	27.890	13.135	2.5
BC	1A3c	Liquid	0.055	0.019	2.0	200.0	200.0	1.246	-65.489	0.5
BC	1A3dii	Liquid	0.069	0.056	8.8	200.0	200.2	10.914	-19.278	1.6
BC	1A4ai	Biomass	0.001	0.002	20.0	80.0	82.5	0.002	79.884	0.0
BC	1A4ai	Liquid	0.152	0.027	13.0	200.0	200.4	2.542	-82.304	0.8
BC	1A4ai	Peat	0.000	0.000	15.0	320.0	320.4	0.000	13.576	0.0
BC	1A4aii	Liquid	0.230	0.021	12.9	200.0	200.4	1.490	-91.031	0.6
BC	1A4bi	Biomass	2.260	2.283	20.0	80.0	82.5	3083.844	0.988	26.3
BC	1A4bi	Liquid	0.072	0.014	15.0	200.0	200.6	0.688	-80.569	0.4
BC	1A4bi	Other	0.000	0.000	10.0	320.0	320.2	0.000	-97.674	0.0
BC	1A4bi	Peat	0.007	0.002	15.0	320.0	320.4	0.027	-74.568	0.1
BC	1A4bii	Liquid	0.027	0.023	11.5	200.0	200.3	1.861	-13.677	0.6
BC	1A4ci	Biomass	0.003	0.003	20.0	80.0	82.5	0.005	-10.326	0.0
BC	1A4ci	Liquid	0.050	0.003	14.6	200.0	200.5	0.025	-94.694	0.1
BC	1A4ci	Peat	0.000	0.001	10.0	320.0	320.2	0.006	197.859	0.0
BC	1A4ci	Solid	0.000	0.000	20.0	320.0	320.6	0.000	-59.209	0.0
BC	1A4cii	Liquid	0.877	0.063	14.5	200.0	200.5	13.764	-92.847	1.8
BC	1A4ciii	Liquid	0.024	0.014	15.0	200.0	200.6	0.654	-42.518	0.4
BC	1A5a	Biomass	0.000	0.107	10.0	320.0	320.2	102.110	141094.991	4.8
BC	1A5a	Liquid	0.094	0.018	15.4	200.0	200.6	1.161	-80.533	0.5
BC	1B1b		0.000	0.000	80.0	400.0	407.9	0.000	-15.654	0.0
BC	2A2		0.000	0.000	80.0	400.0	407.9	0.000	-99.425	0.0
BC	2A3		0.000	0.000	80.0	400.0	407.9	0.000	-96.947	0.0
BC	2B10a		0.013	0.003	160.0	400.0	430.8	0.128	-78.745	0.2
BC	2B6		0.003	0.000	80.0	400.0	407.9	0.000	-99.589	0.0
BC	2C1		0.012	0.001	80.0	400.0	407.9	0.008	-93.572	0.0
BC	2C2		0.001	0.008	80.0	400.0	407.9	0.889	460.515	0.4
BC	2C3		0.000	0.000	120.0	400.0	417.6	0.000	-81.999	0.0
BC	2C7a		0.000	0.000	120.0	400.0	417.6	0.000	-99.948	0.0
BC	2D3b		0.005	0.003	30.0	200.0	202.2	0.042	-30.380	0.1
BC	2D3i		0.000	0.000	80.0	400.0	407.9	0.000	-91.002	0.0
BC	2G		0.001	0.000	35.0	49.0	60.2	0.000	-59.506	0.0
BC	2H1		0.046	0.002	160.0	400.0	430.8	0.099	-94.658	0.1
BC	5C1bv		0.000	0.001	10.0	900.0	900.1	0.026	358.166	0.1
BC	5E		0.027	0.009	35.0	100.0	105.9	0.073	-67.404	0.1
<b>Total</b>			<b>10.135</b>	<b>3.389</b>			<b>59.2</b>		<b>-66.559</b>	<b>28.0</b>

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2021 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
CO	1A1a	Biomass	1.545	12.987	4.4	70.0	70.1	7.278	740.310	1.7
CO	1A1a	Gaseous	0.779	0.446	7.8	70.0	70.4	0.009	-42.828	0.1
CO	1A1a	Liquid	0.371	0.175	3.5	70.0	70.1	0.001	-52.762	0.0
CO	1A1a	Other	0.008	0.135	7.7	70.0	70.4	0.001	1498.797	0.0
CO	1A1a	Peat	1.544	1.579	2.2	70.0	70.0	0.107	2.270	0.2
CO	1A1a	Solid	0.793	1.296	5.2	70.0	70.2	0.073	63.558	0.2
CO	1A1b	Biomass		0.037	10.0	70.0	70.7	0.000	NA	0.0
CO	1A1b	Gaseous	0.167	0.363	1.0	70.0	70.0	0.006	117.081	0.0
CO	1A1b	Liquid	0.406	0.485	3.5	70.0	70.1	0.010	19.505	0.1
CO	1A1b	Solid	0.001	0.009	3.0	70.0	70.1	0.000	626.921	0.0
CO	1A2a	Biomass		0.000	10.0		10.0	0.000	NA	0.0
CO	1A2a	Gaseous	0.023	0.140	2.0	70.0	70.0	0.001	501.824	0.0
CO	1A2a	Liquid	0.246	0.007	4.0	70.0	70.1	0.000	-96.964	0.0
CO	1A2a	Solid	6.922	0.701	2.1	70.0	70.0	0.021	-89.867	0.1
CO	1A2b	Gaseous		0.001	4.8	70.0	70.2	0.000	NA	0.0
CO	1A2b	Liquid	0.020	0.073	7.9	70.0	70.4	0.000	258.612	0.0
CO	1A2b	Solid	0.079	0.003	4.7	70.0	70.2	0.000	-95.746	0.0
CO	1A2c	Biomass	0.021	0.007	8.5	70.0	70.5	0.000	-66.984	0.0
CO	1A2c	Gaseous	0.034	0.029	3.9	70.0	70.1	0.000	-16.420	0.0
CO	1A2c	Liquid	0.191	0.278	3.5	70.0	70.1	0.003	45.987	0.0
CO	1A2c	Other	0.111	0.001	10.0	70.0	70.7	0.000	-99.187	0.0
CO	1A2d	Biomass	25.273	16.081	2.3	70.0	70.0	11.126	-36.369	2.1
CO	1A2d	Gaseous	1.836	0.680	4.8	70.0	70.2	0.020	-62.971	0.1
CO	1A2d	Liquid	1.041	0.342	1.8	70.0	70.0	0.005	-67.183	0.0
CO	1A2d	Other	0.008	0.050	8.1	70.0	70.5	0.000	526.387	0.0
CO	1A2d	Peat	0.700	0.279	2.4	70.0	70.0	0.003	-60.167	0.0
CO	1A2d	Solid	0.645	0.002	10.0		10.0	0.000	-99.694	0.0
CO	1A2e	Biomass	0.077	0.086	8.6	70.0	70.5	0.000	11.617	0.0
CO	1A2e	Gaseous	0.018	0.009	3.0	70.0	70.1	0.000	-52.086	0.0
CO	1A2e	Liquid	0.090	0.010	2.8	70.0	70.1	0.000	-89.390	0.0
CO	1A2e	Other	0.002	0.013	10.0	70.0	70.7	0.000	552.023	0.0
CO	1A2e	Peat	0.143	0.057	5.0	70.0	70.2	0.000	-60.038	0.0
CO	1A2e	Solid	0.053	0.007	4.6	70.0	70.2	0.000	-87.501	0.0
CO	1A2f	Biomass	0.000	0.123	9.0	70.0	70.6	0.001	170371.124	0.0
CO	1A2f	Gaseous	1.888	0.043	6.3	70.0	70.3	0.000	-97.706	0.0
CO	1A2f	Liquid	1.281	2.249	3.0	70.0	70.1	0.218	75.558	0.3
CO	1A2f	Other		0.476	10.0	70.0	70.7	0.010	NA	0.1

CO	1A2f	Solid	12.941	1.134	3.2	70.0	70.1	0.055	-91.238	0.1
CO	1A2gvii	Liquid	8.424	7.075	4.9	70.0	70.2	2.162	-16.009	0.9
CO	1A2gviii	Biomass	3.848	2.817	8.2	70.0	70.5	0.346	-26.811	0.4
CO	1A2gviii	Gaseous	0.053	0.084	9.3	70.0	70.6	0.000	59.033	0.0
CO	1A2gviii	Liquid	0.202	0.057	3.5	70.0	70.1	0.000	-71.769	0.0
CO	1A2gviii	Other	0.279	0.027	10.0	70.0	70.7	0.000	-90.512	0.0
CO	1A2gviii	Peat	0.024	0.058	9.3	70.0	70.6	0.000	141.067	0.0
CO	1A3ai(i)	Liquid	0.231	0.228	5.0	70.0	70.2	0.002	-1.140	0.0
CO	1A3aii(i)	Liquid	0.631	0.194	4.9	70.0	70.2	0.002	-69.199	0.0
CO	1A3bi	Diesel oil	9.979	0.764	1.0	70.0	70.0	0.025	-92.348	0.1
CO	1A3bi	Gaseous		0.095	3.0	70.0	70.1	0.000	NA	0.0
CO	1A3bi	Gasoline	412.338	17.903	2.0	70.0	70.0	13.787	-95.658	2.3
CO	1A3bii	Diesel oil	4.107	1.136	1.0	70.0	70.0	0.055	-72.336	0.1
CO	1A3bii	Gaseous		0.009	3.0	70.0	70.1	0.000	NA	0.0
CO	1A3bii	Gasoline	18.286	0.394	2.0	70.0	70.0	0.007	-97.847	0.1
CO	1A3biii	Diesel oil	15.069	2.077	1.0	70.0	70.0	0.185	-86.218	0.3
CO	1A3biii	Gaseous		0.006	3.0	70.0	70.1	0.000	NA	0.0
CO	1A3biv	Diesel oil		0.045	1.0	70.0	70.0	0.000	NA	0.0
CO	1A3biv	Gasoline	7.906	3.354	2.0	70.0	70.0	0.484	-57.581	0.4
CO	1A3c	Liquid	0.548	0.217	2.0	70.0	70.0	0.002	-60.389	0.0
CO	1A3dii	Liquid	22.554	25.281	8.8	70.0	70.5	27.899	12.091	3.3
CO	1A3ei	Gaseous	0.001	0.002	20.0	70.0	72.8	0.000	204.273	0.0
CO	1A4ai	Biomass	0.455	0.788	20.0	70.0	72.8	0.029	73.182	0.1
CO	1A4ai	Gaseous	0.031	0.060	10.0	70.0	70.7	0.000	89.611	0.0
CO	1A4ai	Liquid	0.527	0.228	12.6	70.0	71.1	0.002	-56.793	0.0
CO	1A4ai	Peat	0.018	0.019	15.0	70.0	71.6	0.000	3.394	0.0
CO	1A4aii	Liquid	11.336	15.159	12.9	70.0	71.2	10.211	33.724	2.0
CO	1A4bi	Biomass	124.241	151.924	20.0	70.0	72.8	1072.964	22.282	20.5
CO	1A4bi	Gaseous	0.030	0.058	10.0	70.0	70.7	0.000	91.657	0.0
CO	1A4bi	Liquid	0.785	0.170	15.1	70.0	71.6	0.001	-78.411	0.0
CO	1A4bi	Other	0.001	0.000	10.0	70.0	70.7	0.000	-97.674	0.0
CO	1A4bi	Peat	0.130	0.033	15.0	70.0	71.6	0.000	-74.568	0.0
CO	1A4bii	Liquid	34.909	35.889	11.5	70.0	70.9	56.840	2.809	4.7
CO	1A4ci	Biomass	1.515	1.359	20.0	70.0	72.8	0.086	-10.242	0.2
CO	1A4ci	Gaseous	0.022	0.006	10.0	70.0	70.7	0.000	-73.857	0.0
CO	1A4ci	Liquid	0.183	0.087	14.0	70.0	71.4	0.000	-52.379	0.0
CO	1A4ci	Peat	0.080	0.243	10.0	70.0	70.7	0.003	204.176	0.0
CO	1A4ci	Solid	0.007	0.005	20.0	70.0	72.8	0.000	-32.672	0.0
CO	1A4cii	Liquid	18.799	8.690	14.5	70.0	71.5	3.385	-53.772	1.1
CO	1A4ciii	Liquid	0.442	0.265	15.0	70.0	71.6	0.003	-40.213	0.0
CO	1A5a	Biomass	0.130	19.103	10.0	70.0	70.7	16.005	14598.116	2.5
CO	1A5a	Gaseous	0.115	0.219	20.0	70.0	72.8	0.002	90.304	0.0
CO	1A5a	Liquid	2.031	0.794	12.3	70.0	71.1	0.028	-60.907	0.1
CO	2C1		0.464	0.207	20.0		20.0	0.000	-55.492	0.0
CO	2C7a		0.223	0.004	20.0		20.0	0.000	-98.272	0.0
CO	2G		0.315	0.132	35.0	5.0	35.4	0.000	-58.049	0.0
<b>Total</b>			<b>764.457</b>	<b>337.654</b>			<b>35.0</b>		<b>-55.831</b>	<b>21.8</b>

Pollutant	NFR	Fuel	Base year emissions, t	Year 2021 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Pb	1A1a	Biomass	0.179	0.580	9.9	80.0	80.6	12.922	223.382	0.2
Pb	1A1a	Liquid	0.319	0.029	5.2	80.0	80.2	0.032	-90.946	0.0
Pb	1A1a	Other	0.001	0.125	9.5	80.0	80.6	0.597	12152.013	0.0
Pb	1A1a	Peat	1.291	0.921	2.0	80.0	80.0	32.186	-28.633	0.3
Pb	1A1a	Solid	5.751	0.045	28.0	80.0	84.8	0.087	-99.215	0.0
Pb	1A1b	Liquid	2.049	2.660	5.0	80.0	80.2	269.120	29.849	0.9
Pb	1A1b	Solid	0.048	0.005	3.0	80.0	80.1	0.001	-89.675	0.0
Pb	1A2a	Biomass		0.000	10.0	80.0	80.6	0.000	NA	0.0
Pb	1A2b	Liquid	0.010	0.001	5.0	80.0	80.2	0.000	-92.647	0.0
Pb	1A2c	Biomass	0.003	0.000	5.0	80.0	80.2	0.000	-90.239	0.0
Pb	1A2c	Liquid	0.082	0.031	4.1	80.0	80.1	0.036	-62.345	0.0
Pb	1A2d	Biomass	4.479	2.814	2.3	80.0	80.0	300.245	-37.182	1.0
Pb	1A2d	Liquid	0.195	0.022	3.9	80.0	80.1	0.018	-88.955	0.0
Pb	1A2d	Other	0.001	0.037	25.7	80.0	84.0	0.056	3583.769	0.0
Pb	1A2d	Peat	0.499	0.009	28.1	80.0	84.8	0.003	-98.243	0.0
Pb	1A2d	Solid	1.025	0.000	30.0		30.0	0.000	-99.995	0.0
Pb	1A2e	Biomass	0.008	0.006	9.2	80.0	80.5	0.001	-28.746	0.0
Pb	1A2e	Liquid	0.083	0.004	19.1	80.0	82.2	0.001	-95.385	0.0
Pb	1A2e	Other	0.003	0.002	10.0	80.0	80.6	0.000	-43.246	0.0
Pb	1A2e	Peat	0.167	0.087	5.0	80.0	80.2	0.290	-47.781	0.0
Pb	1A2e	Solid	1.384	0.014	5.0	80.0	80.2	0.007	-99.006	0.0
Pb	1A2f	Biomass	0.000	0.007	23.6	80.0	83.4	0.002	4343.698	0.0
Pb	1A2f	Liquid	0.062	0.007	18.0	80.0	82.0	0.002	-88.864	0.0
Pb	1A2f	Other		0.001	30.0		30.0	0.000	NA	0.0
Pb	1A2f	Solid	2.811	0.671	4.5	80.0	80.1	17.102	-76.134	0.2
Pb	1A2gviii	Biomass	0.319	0.108	9.3	80.0	80.5	0.444	-66.260	0.0
Pb	1A2gviii	Liquid	0.113	0.004	4.3	80.0	80.1	0.001	-96.309	0.0
Pb	1A2gviii	Other	0.049	0.014	10.0	80.0	80.6	0.007	-71.908	0.0
Pb	1A2gviii	Peat	0.003	0.004	9.9	80.0	80.6	0.001	47.202	0.0
Pb	1A3aii(i)	Liquid	0.297	0.056	20.0	100.0	102.0	0.196	-80.974	0.0
Pb	1A3bi	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	102.897	0.0
Pb	1A3bi	Gasoline	166.003	0.002	2.0	100.0	100.0	0.000	-99.999	0.0
Pb	1A3bii	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	18.940	0.0
Pb	1A3bii	Gasoline	6.400	0.000	2.0	100.0	100.0	0.000	-100.000	0.0
Pb	1A3biii	Diesel oil	0.000	0.001	1.0	100.0	100.0	0.000	47.577	0.0
Pb	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0

Pb	1A3biv	Gasoline	1.300	0.000	2.0	100.0	100.0	0.000	-99.996	0.0
Pb	1A3bvi		7.220	0.467	1.0	100.0	100.0	12.935	-93.526	0.2
Pb	1A3dii	Liquid	0.015	0.008	14.1	100.0	101.0	0.004	-41.537	0.0
Pb	1A4ai	Biomass	0.020	0.034	20.0	80.0	82.5	0.048	70.087	0.0
Pb	1A4ai	Liquid	0.261	0.040	15.0	80.0	81.4	0.063	-84.605	0.0
Pb	1A4ai	Peat	0.020	0.018	15.0	80.0	81.4	0.013	-10.448	0.0
Pb	1A4bi	Biomass	0.413	0.531	20.0	80.0	82.5	11.354	28.627	0.2
Pb	1A4bi	Liquid	0.046	0.001	15.0	80.0	81.4	0.000	-98.556	0.0
Pb	1A4bi	Peat	0.111	0.028	15.0	80.0	81.4	0.031	-74.568	0.0
Pb	1A4ci	Biomass	0.065	0.058	20.0	80.0	82.5	0.136	-10.421	0.0
Pb	1A4ci	Liquid	0.081	0.003	15.0	80.0	81.4	0.000	-96.690	0.0
Pb	1A4ci	Peat	0.068	0.204	10.0	80.0	80.6	1.604	200.228	0.1
Pb	1A4ci	Solid	0.035	0.000	20.0	80.0	82.5	0.000	-98.941	0.0
Pb	1A4ciii	Liquid	0.007	0.004	15.0	100.0	101.1	0.001	-42.558	0.0
Pb	1A5a	Biomass	0.015	1.719	10.0	80.0	80.6	113.739	11139.626	0.6
Pb	1A5a	Liquid	0.211	0.043	19.8	80.0	82.4	0.075	-79.512	0.0
Pb	1B1b		0.022	0.011	30.0		30.0	0.001	-49.091	0.0
Pb	2B10a		0.001	0.001	60.0		60.0	0.000	0.000	0.0
Pb	2C1		34.463	0.504	30.0		30.0	1.351	-98.537	0.1
Pb	2C2		0.001	0.029	30.0		30.0	0.005	2840.000	0.0
Pb	2C3		0.066	0.000	30.0		30.0	0.000	-99.727	0.0
Pb	2C6		0.000	0.016	30.0		30.0	0.001	3782.500	0.0
Pb	2C7a		0.374	0.002	40.8		40.8	0.000	-99.430	0.0
Pb	2C7c		80.081	0.376	30.0		30.0	0.754	-99.530	0.0
Pb	2G		0.310	0.630	35.0	283.0	285.2	190.817	102.924	0.8
Pb	5C1bv		0.000	0.001	10.0	900.0	900.1	0.005	358.166	0.0
Pb	5E		0.001	0.000	35.0	150.0	154.0	0.000	-52.263	0.0
<b>Total</b>			<b>321.435</b>	<b>12.997</b>			<b>31.1</b>		<b>-95.956</b>	<b>1.8</b>

Pollutant	NFR	Fuel	Base year emissions, t	Year 2021 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Cd	1A1a	Biomass	0.019	0.078	8.1	80.0	80.4	54.826	312.934	1.3
Cd	1A1a	Liquid	0.005	0.000	6.3	80.0	80.2	0.001	-92.251	0.0
Cd	1A1a	Other	0.000	0.014	9.5	80.0	80.6	1.800	12080.186	0.2
Cd	1A1a	Peat	0.023	0.017	2.0	80.0	80.0	2.635	-23.969	0.3
Cd	1A1a	Solid	0.155	0.003	26.0	80.0	84.1	0.089	-98.061	0.1
Cd	1A1b	Liquid	0.047	0.061	5.0	80.0	80.2	32.699	30.081	1.0
Cd	1A1b	Solid	0.001	0.000	3.0	80.0	80.1	0.000	-89.675	0.0

Cd	1A2a	Biomass		0.000	10.0	80.0	80.6	0.000	NA	0.0
Cd	1A2b	Liquid	0.000	0.000	5.0	80.0	80.2	0.000	-92.647	0.0
Cd	1A2c	Biomass	0.000	0.000	5.0	80.0	80.2	0.000	-77.276	0.0
Cd	1A2c	Liquid	0.001	0.000	4.1	80.0	80.1	0.001	-63.152	0.0
Cd	1A2d	Biomass	0.317	0.178	2.2	80.0	80.0	280.967	-43.889	3.0
Cd	1A2d	Liquid	0.003	0.001	4.9	80.0	80.1	0.003	-82.727	0.0
Cd	1A2d	Other	0.000	0.001	17.6	80.0	81.9	0.018	903.127	0.0
Cd	1A2d	Peat	0.008	0.000	30.0		30.0	0.000	-99.216	0.0
Cd	1A2d	Solid	0.024	0.000	30.0		30.0	0.000	-99.979	0.0
Cd	1A2e	Biomass	0.001	0.001	9.2	80.0	80.5	0.004	-32.292	0.0
Cd	1A2e	Liquid	0.001	0.000	18.2	80.0	82.0	0.000	-95.859	0.0
Cd	1A2e	Other	0.000	0.000	10.0	80.0	80.6	0.000	67.740	0.0
Cd	1A2e	Peat	0.003	0.001	5.0	80.0	80.2	0.018	-47.794	0.0
Cd	1A2e	Solid	0.032	0.000	5.7	80.0	80.2	0.001	-98.937	0.0
Cd	1A2f	Biomass	0.000	0.000	9.6	80.0	80.6	0.000	926.279	0.0
Cd	1A2f	Liquid	0.001	0.000	27.0	80.0	84.4	0.001	-53.479	0.0
Cd	1A2f	Other		0.000	30.0		30.0	0.000	NA	0.0
Cd	1A2f	Solid	0.068	0.015	4.6	80.0	80.1	2.051	-77.735	0.3
Cd	1A2gvii	Liquid	0.003	0.004	4.9	100.0	100.1	0.192	25.668	0.1
Cd	1A2gviii	Biomass	0.036	0.013	9.3	80.0	80.5	1.511	-63.739	0.2
Cd	1A2gviii	Liquid	0.001	0.000	4.3	80.0	80.1	0.000	-96.079	0.0
Cd	1A2gviii	Other	0.028	0.002	11.9	80.0	80.9	0.026	-94.028	0.0
Cd	1A2gviii	Peat	0.000	0.000	9.9	80.0	80.6	0.000	48.230	0.0
Cd	1A3bi	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	102.897	0.0
Cd	1A3bi	Gasoline	0.000	0.000	2.0	100.0	100.0	0.001	-32.403	0.0
Cd	1A3bii	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	18.940	0.0
Cd	1A3bii	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	-93.342	0.0
Cd	1A3biii	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	47.577	0.0
Cd	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0
Cd	1A3biv	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	154.961	0.0
Cd	1A3bvi		0.002	0.002	1.0	100.0	100.0	0.042	13.939	0.0
Cd	1A3c	Liquid	0.001	0.000	2.0	100.0	100.0	0.001	-61.561	0.0
Cd	1A3dii	Liquid	0.001	0.001	14.1	100.0	101.0	0.007	-49.811	0.0
Cd	1A4ai	Biomass	0.006	0.010	20.0	80.0	82.5	1.003	76.260	0.2
Cd	1A4ai	Liquid	0.003	0.000	15.0	80.0	81.4	0.002	-84.638	0.0
Cd	1A4ai	Peat	0.000	0.000	15.0	80.0	81.4	0.001	-10.448	0.0
Cd	1A4aii	Liquid	0.001	0.001	12.9	100.0	100.8	0.014	-26.603	0.0
Cd	1A4bi	Biomass	0.124	0.159	20.0	80.0	82.5	239.177	28.627	2.8
Cd	1A4bi	Liquid	0.001	0.000	15.0	80.0	81.4	0.000	-98.556	0.0
Cd	1A4bi	Peat	0.002	0.000	15.0	80.0	81.4	0.002	-74.568	0.0
Cd	1A4bii	Liquid	0.000	0.001	11.5	100.0	100.7	0.005	30.672	0.0
Cd	1A4ci	Biomass	0.020	0.017	20.0	80.0	82.5	2.862	-10.608	0.3
Cd	1A4ci	Liquid	0.001	0.000	15.0	80.0	81.4	0.000	-96.698	0.0
Cd	1A4ci	Peat	0.001	0.003	10.0	80.0	80.6	0.102	200.228	0.1
Cd	1A4ci	Solid	0.001	0.000	20.0	80.0	82.5	0.000	-97.638	0.0
Cd	1A4cii	Liquid	0.003	0.002	14.5	100.0	101.0	0.081	-18.644	0.1
Cd	1A4ciii	Liquid	0.001	0.000	15.0	100.0	101.1	0.001	-42.558	0.0
Cd	1A5a	Biomass	0.002	0.191	10.0	80.0	80.6	328.660	11139.626	3.3

Cd	1A5a	Liquid	0.003	0.001	19.8	80.0	82.4	0.003	-76.818	0.0
Cd	1B1b		0.000	0.000	30.0		30.0	0.000	300.000	0.0
Cd	2C1		0.390	0.006	30.0		30.0	0.043	-98.491	0.0
Cd	2C2		0.003	0.000	30.0		30.0	0.000	-85.383	0.0
Cd	2C3		0.023	0.000	30.0		30.0	0.000	-99.957	0.0
Cd	2C6		0.850	0.010	30.0		30.0	0.113	-98.882	0.1
Cd	2C7a		0.000	0.000	30.0		30.0	0.000	-95.000	0.0
Cd	2C7c		4.203	0.037	30.0		30.0	1.737	-99.112	0.2
Cd	2G		0.028	0.013	35.0	846.0	846.7	172.077	-52.550	2.4
Cd	5C1bv		0.000	0.000	10.0	900.0	900.1	0.035	358.166	0.0
Cd	5E		0.002	0.001	35.0	100.0	105.9	0.011	-52.398	0.0
<b>Total</b>			<b>6.685</b>	<b>0.850</b>			<b>33.5</b>		<b>-87.292</b>	<b>6.0</b>

Pollutant	NFR	Fuel	Base year emissions, t	Year 2021 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Hg	1A1a	Biomass	0.004	0.050	30.7	80.0	85.7	67.012	1148.074	5.6
Hg	1A1a	Liquid	0.001	0.000	17.6	80.0	81.9	0.000	-89.836	0.0
Hg	1A1a	Other	0.000	0.004	27.9	80.0	84.7	0.497	18760.721	0.5
Hg	1A1a	Peat	0.062	0.052	28.2	80.0	84.8	71.159	-15.540	5.7
Hg	1A1a	Solid	0.172	0.029	42.8	80.0	90.7	25.506	-83.101	3.4
Hg	1A1b	Liquid	0.010	0.012	5.0	80.0	80.2	3.640	30.323	1.3
Hg	1A1b	Solid	0.000	0.000	3.0	80.0	80.1	0.000	-89.675	0.0
Hg	1A2a	Biomass		0.000	10.0	80.0	80.6	0.000	NA	0.0
Hg	1A2a	Solid	0.017	0.000	3.0	80.0	80.1	0.000	-99.614	0.0
Hg	1A2b	Liquid	0.000	0.000	5.0	80.0	80.2	0.000	-75.205	0.0
Hg	1A2c	Biomass	0.000	0.000	5.0	80.0	80.2	0.000	-98.516	0.0
Hg	1A2c	Liquid	0.000	0.000	4.1	80.0	80.1	0.000	-64.050	0.0
Hg	1A2d	Biomass	0.089	0.097	17.0	80.0	81.8	228.584	8.833	10.3
Hg	1A2d	Liquid	0.000	0.000	10.9	80.0	80.7	0.001	-49.813	0.0
Hg	1A2d	Other	0.000	0.001	47.4	80.0	93.0	0.042	927.158	0.1
Hg	1A2d	Peat	0.016	0.005	50.0		50.0	0.194	-70.351	0.3
Hg	1A2d	Solid	0.018	0.000	50.0		50.0	0.000	-99.732	0.0
Hg	1A2e	Biomass	0.000	0.000	9.2	80.0	80.5	0.001	6.951	0.0
Hg	1A2e	Liquid	0.000	0.000	31.5	80.0	86.0	0.000	-95.726	0.0
Hg	1A2e	Other	0.000	0.000	10.0	80.0	80.6	0.000	738.700	0.0
Hg	1A2e	Peat	0.003	0.001	5.0	80.0	80.2	0.050	-56.628	0.2
Hg	1A2e	Solid	0.006	0.000	40.8	80.0	89.8	0.003	-94.898	0.0
Hg	1A2f	Biomass	0.000	0.000	38.4	80.0	88.7	0.000	4024.128	0.0

Hg	1A2f	Liquid	0.000	0.009	50.0	80.0	94.3	2.861	12869.129	1.2
Hg	1A2f	Other		0.002	50.0		50.0	0.023	NA	0.1
Hg	1A2f	Solid	0.017	0.005	18.4	80.0	82.1	0.587	-71.074	0.5
Hg	1A2gviii	Biomass	0.005	0.004	10.7	80.0	80.7	0.354	-15.954	0.4
Hg	1A2gviii	Liquid	0.000	0.000	10.5	80.0	80.7	0.000	-94.943	0.0
Hg	1A2gviii	Other	0.171	0.002	47.3	80.0	92.9	0.135	-98.794	0.3
Hg	1A2gviii	Peat	0.000	0.001	24.9	80.0	83.8	0.029	384.257	0.1
Hg	1A3bi	Diesel oil	0.002	0.004	1.0	100.0	100.0	0.457	102.897	0.5
Hg	1A3bi	Gasoline	0.016	0.011	2.0	100.0	100.0	4.057	-32.403	1.4
Hg	1A3bii	Diesel oil	0.001	0.002	1.0	100.0	100.0	0.094	18.940	0.2
Hg	1A3bii	Gasoline	0.001	0.000	2.0	100.0	100.0	0.000	-93.342	0.0
Hg	1A3biii	Diesel oil	0.005	0.008	1.0	100.0	100.0	2.191	47.577	1.0
Hg	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0
Hg	1A3biv	Gasoline	0.000	0.000	2.0	100.0	100.0	0.004	154.961	0.0
Hg	1A3dii	Liquid	0.003	0.002	14.1	100.0	101.0	0.130	-26.062	0.2
Hg	1A4ai	Biomass	0.001	0.002	20.0	80.0	82.5	0.073	77.778	0.2
Hg	1A4ai	Liquid	0.000	0.000	15.0	80.0	81.4	0.000	-84.679	0.0
Hg	1A4ai	Peat	0.000	0.000	15.0	80.0	81.4	0.002	-10.448	0.0
Hg	1A4bi	Biomass	0.021	0.027	20.0	80.0	82.5	17.504	28.627	2.9
Hg	1A4bi	Liquid	0.000	0.000	15.0	80.0	81.4	0.000	-98.556	0.0
Hg	1A4bi	Peat	0.002	0.000	15.0	80.0	81.4	0.004	-74.568	0.0
Hg	1A4ci	Biomass	0.003	0.003	20.0	80.0	82.5	0.211	-10.367	0.3
Hg	1A4ci	Liquid	0.000	0.000	15.0	80.0	81.4	0.000	-96.708	0.0
Hg	1A4ci	Peat	0.001	0.003	10.0	80.0	80.6	0.231	200.228	0.3
Hg	1A4ci	Solid	0.000	0.000	20.0	80.0	82.5	0.000	-61.187	0.0
Hg	1A4ciii	Liquid	0.002	0.001	15.0	100.0	101.1	0.034	-42.558	0.1
Hg	1A5a	Biomass	0.000	0.019	10.0	80.0	80.6	8.659	11139.626	2.0
Hg	1A5a	Liquid	0.000	0.000	19.8	80.0	82.4	0.002	-34.473	0.0
Hg	1B1b		0.000	0.000	100.0		100.0	0.000	0.000	0.0
Hg	2B10a		0.369	0.035	99.7		99.7	44.161	-90.544	4.5
Hg	2C1		0.005	0.094	50.0		50.0	81.240	1787.000	6.1
Hg	2C2		0.000	0.002	50.0		50.0	0.040	1234.572	0.1
Hg	2C6			0.006	50.0		50.0	0.354	NA	0.4
Hg	2C7a		0.007	0.000	100.0		100.0	0.000	-99.946	0.0
Hg	2C7c		0.028	0.005	50.0		50.0	0.185	-83.918	0.3
Hg	2G		0.000	0.000	35.0	777.0	777.8	0.005	102.924	0.0
Hg	5C1bv		0.006	0.023	10.0	900.0	900.1	1613.680	294.977	27.4
Hg	5E		0.002	0.001	35.0	100.0	105.9	0.028	-52.398	0.1
<b>To- tal</b>			<b>1.086</b>	<b>0.523</b>			<b>46.6</b>		<b>-51.808</b>	<b>31.8</b>

Pollutant	NFR	Fuel	Base year emissions, t	Year 2021 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
As	1A1a	Biomass	0.004	0.021	11.0	80.0	80.8	0.654	378.995	0.1
As	1A1a	Liquid	0.029	0.003	6.2	80.0	80.2	0.010	-91.426	0.0
As	1A1a	Other	0.000	0.003	10.6	80.0	80.7	0.017	14165.129	0.0
As	1A1a	Peat	0.628	0.512	2.1	80.0	80.0	393.996	-18.470	1.7
As	1A1a	Solid	1.618	0.041	27.8	80.0	84.7	2.769	-97.493	0.1
As	1A1b	Liquid	0.336	0.438	5.0	80.0	80.2	288.697	30.271	1.4
As	1A1b	Solid	0.008	0.001	3.0	80.0	80.1	0.001	-89.675	0.0
As	1A2a	Biomass		0.000	10.0	80.0	80.6	0.000	NA	0.0
As	1A2b	Liquid	0.001	0.000	5.0	80.0	80.2	0.000	-91.887	0.0
As	1A2c	Biomass	0.000	0.000	5.0	80.0	80.2	0.000	-29.491	0.0
As	1A2c	Liquid	0.007	0.002	4.1	80.0	80.1	0.009	-62.688	0.0
As	1A2d	Biomass	0.160	0.148	3.6	80.0	80.1	32.916	-7.580	0.5
As	1A2d	Liquid	0.018	0.004	3.2	80.0	80.1	0.019	-80.494	0.0
As	1A2d	Other	0.000	0.001	23.2	80.0	83.3	0.000	1769.228	0.0
As	1A2d	Peat	0.238	0.002	19.5	80.0	82.4	0.007	-99.101	0.0
As	1A2d	Solid	0.229	0.001	27.9	80.0	84.7	0.001	-99.744	0.0
As	1A2e	Biomass	0.000	0.000	9.2	80.0	80.5	0.000	-21.742	0.0
As	1A2e	Liquid	0.007	0.000	19.4	80.0	82.3	0.000	-95.532	0.0
As	1A2e	Other	0.000	0.000	10.0	80.0	80.6	0.000	738.700	0.0
As	1A2e	Peat	0.080	0.042	5.0	80.0	80.2	2.606	-47.801	0.1
As	1A2e	Solid	0.228	0.004	12.7	80.0	81.0	0.020	-98.405	0.0
As	1A2f	Biomass	0.000	0.000	9.8	80.0	80.6	0.000	883.713	0.0
As	1A2f	Liquid	0.005	0.001	24.7	80.0	83.7	0.001	-80.291	0.0
As	1A2f	Other		0.000	30.0		30.0	0.000	NA	0.0
As	1A2f	Solid	0.491	0.109	4.6	80.0	80.1	18.054	-77.708	0.4
As	1A2gviii	Biomass	0.007	0.003	9.2	80.0	80.5	0.010	-64.286	0.0
As	1A2gviii	Liquid	0.009	0.000	4.3	80.0	80.1	0.000	-96.212	0.0
As	1A2gviii	Other	0.001	0.002	25.5	80.0	84.0	0.004	118.828	0.0
As	1A2gviii	Peat	0.001	0.002	9.5	80.0	80.6	0.007	69.362	0.0
As	1A3bi	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	102.897	0.0
As	1A3bi	Gasoline	0.001	0.000	2.0	100.0	100.0	0.000	-32.403	0.0
As	1A3bii	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	18.940	0.0
As	1A3bii	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	-93.342	0.0
As	1A3biii	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	47.577	0.0
As	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0
As	1A3biv	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	154.961	0.0
As	1A3bvi		0.036	0.042	1.0	100.0	100.0	4.051	13.888	0.2

As	1A3dii	Liquid	0.028	0.003	14.1	100.0	101.0	0.016	-90.846	0.0
As	1A4ai	Biomass	0.002	0.003	20.0	80.0	82.5	0.019	77.778	0.0
As	1A4ai	Liquid	0.021	0.003	15.0	80.0	81.4	0.016	-84.617	0.0
As	1A4ai	Peat	0.010	0.009	15.0	80.0	81.4	0.118	-10.448	0.0
As	1A4bi	Biomass	0.041	0.053	20.0	80.0	82.5	4.498	28.627	0.2
As	1A4bi	Liquid	0.004	0.000	15.0	80.0	81.4	0.000	-98.556	0.0
As	1A4bi	Peat	0.053	0.013	15.0	80.0	81.4	0.279	-74.568	0.0
As	1A4ci	Biomass	0.007	0.006	20.0	80.0	82.5	0.054	-10.660	0.0
As	1A4ci	Liquid	0.006	0.000	15.0	80.0	81.4	0.000	-96.693	0.0
As	1A4ci	Peat	0.032	0.097	10.0	80.0	80.6	14.424	200.228	0.3
As	1A4ci	Solid	0.006	0.001	20.0	80.0	82.5	0.001	-88.247	0.0
As	1A4ciii	Liquid	0.002	0.001	15.0	100.0	101.1	0.004	-42.558	0.0
As	1A5a	Biomass	0.000	0.038	10.0	80.0	80.6	2.225	11139.626	0.1
As	1A5a	Liquid	0.017	0.004	19.8	80.0	82.4	0.022	-78.267	0.0
As	1B1b		0.004	0.002	30.0		30.0	0.001	-50.500	0.0
As	2C1		0.411	0.069	30.0		30.0	1.005	-83.214	0.1
As	2C2		0.002	0.002	30.0		30.0	0.001	15.000	0.0
As	2C3		0.008	0.000	30.0		30.0	0.000	-99.250	0.0
As	2C6		1.700	0.015	30.0		30.0	0.048	-99.116	0.0
As	2C7a		0.113	0.023	32.3		32.3	0.130	-79.602	0.0
As	2C7c		28.000	0.339	30.0		30.0	24.311	-98.788	0.4
As	2G		0.001	0.001	35.0	877.0	877.7	0.083	28.700	0.0
As	5C1bv		0.000	0.000	10.0	900.0	900.1	0.043	358.166	0.0
As	5E		0.003	0.001	35.0	107.0	112.6	0.005	-52.304	0.0
<b>Total</b>			<b>34.816</b>	<b>2.065</b>			<b>28.1</b>		<b>-94.069</b>	<b>2.4</b>

Pollutant	NFR	Fuel	Base year emissions, t	Year 2021 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Uncertainty introduced into the trend in total national emissions with respect to base year, %	
									Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	
Cr	1A1a	Biomass	0.117	0.416	9.4	80.0	80.6	5.460	256.816	1.0
Cr	1A1a	Liquid	0.015	0.001	5.8	80.0	80.2	0.000	-91.382	0.0
Cr	1A1a	Other	0.001	0.095	9.5	80.0	80.6	0.283	12122.099	0.2
Cr	1A1a	Peat	1.076	0.757	2.0	80.0	80.0	17.849	-29.634	1.8
Cr	1A1a	Solid	6.765	0.063	28.2	80.0	84.8	0.138	-99.070	0.2
Cr	1A1b	Liquid	2.574	3.367	5.0	80.0	80.2	354.362	30.792	8.0
Cr	1A1b	Solid	0.060	0.006	3.0	80.0	80.1	0.001	-89.675	0.0
Cr	1A2a	Biomass		0.000	10.0	80.0	80.6	0.000	NA	0.0
Cr	1A2b	Liquid	0.001	0.000	4.1	80.0	80.1	0.000	-63.151	0.0
Cr	1A2b	Solid	1.845	0.163	4.7	80.0	80.1	0.830	-91.168	0.4

Cr	1A2c	Biomass	0.000	0.000	5.0	80.0	80.2	0.000	-41.870	0.0
Cr	1A2c	Liquid	0.003	0.001	4.1	80.0	80.1	0.000	-62.694	0.0
Cr	1A2d	Biomass	0.558	0.164	21.1	80.0	82.7	0.891	-70.659	0.4
Cr	1A2d	Liquid	0.009	0.002	6.9	80.0	80.3	0.000	-76.559	0.0
Cr	1A2d	Other	0.001	0.006	12.3	80.0	80.9	0.001	909.962	0.0
Cr	1A2d	Peat	0.411	0.002	30.0		30.0	0.000	-99.453	0.0
Cr	1A2d	Solid	1.263	0.001	30.0		30.0	0.000	-99.933	0.0
Cr	1A2e	Biomass	0.006	0.004	9.2	80.0	80.5	0.001	-32.413	0.0
Cr	1A2e	Liquid	0.003	0.000	15.6	80.0	81.5	0.000	-95.380	0.0
Cr	1A2e	Other	0.006	0.001	10.0	80.0	80.6	0.000	-77.332	0.0
Cr	1A2e	Peat	0.138	0.072	5.0	80.0	80.2	0.161	-47.777	0.2
Cr	1A2e	Solid	1.752	0.017	5.0	80.0	80.2	0.009	-99.009	0.0
Cr	1A2f	Biomass	0.000	0.007	24.6	80.0	83.7	0.001	5131.894	0.0
Cr	1A2f	Liquid	0.002	0.003	28.8	80.0	85.0	0.000	25.727	0.0
Cr	1A2f	Other		0.004	30.0		30.0	0.000	NA	0.0
Cr	1A2f	Solid	3.365	0.853	4.5	80.0	80.1	22.703	-74.666	2.0
Cr	1A2gvii	Liquid	0.015	0.019	4.9	100.0	100.1	0.017	25.668	0.1
Cr	1A2gviii	Biomass	0.817	0.082	9.1	80.0	80.5	0.215	-89.908	0.2
Cr	1A2gviii	Liquid	0.016	0.000	4.3	80.0	80.1	0.000	-98.896	0.0
Cr	1A2gviii	Other	0.024	0.012	11.8	80.0	80.9	0.005	-49.249	0.0
Cr	1A2gviii	Peat	0.002	0.003	9.7	80.0	80.6	0.000	49.122	0.0
Cr	1A3bi	Diesel oil	0.003	0.006	1.0	100.0	100.0	0.002	102.897	0.0
Cr	1A3bi	Gasoline	0.011	0.008	2.0	100.0	100.0	0.003	-32.403	0.0
Cr	1A3bii	Diesel oil	0.002	0.003	1.0	100.0	100.0	0.000	18.940	0.0
Cr	1A3bii	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	-93.342	0.0
Cr	1A3biii	Diesel oil	0.008	0.012	1.0	100.0	100.0	0.008	47.577	0.0
Cr	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0
Cr	1A3biv	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	154.961	0.0
Cr	1A3bvi		1.143	1.302	1.0	100.0	100.0	82.435	13.918	3.9
Cr	1A3c	Liquid	0.003	0.001	2.0	100.0	100.0	0.000	-61.561	0.0
Cr	1A3dii	Liquid	0.030	0.006	14.1	100.0	101.0	0.002	-80.433	0.0
Cr	1A4ai	Biomass	0.068	0.120	20.0	80.0	82.5	0.480	77.778	0.3
Cr	1A4ai	Liquid	0.010	0.002	15.0	80.0	81.4	0.000	-84.617	0.0
Cr	1A4ai	Peat	0.017	0.015	15.0	80.0	81.4	0.007	-10.448	0.0
Cr	1A4aai	Liquid	0.007	0.005	12.9	100.0	100.8	0.001	-26.603	0.0
Cr	1A4bi	Biomass	1.445	1.859	20.0	80.0	82.5	114.311	28.627	4.5
Cr	1A4bi	Liquid	0.002	0.000	15.0	80.0	81.4	0.000	-98.556	0.0
Cr	1A4bi	Peat	0.091	0.023	15.0	80.0	81.4	0.017	-74.568	0.1
Cr	1A4bii	Liquid	0.002	0.003	11.5	100.0	100.7	0.000	30.672	0.0
Cr	1A4ci	Biomass	0.228	0.203	20.0	80.0	82.5	1.366	-10.674	0.5
Cr	1A4ci	Liquid	0.003	0.000	15.0	80.0	81.4	0.000	-96.693	0.0
Cr	1A4ci	Peat	0.056	0.168	10.0	80.0	80.6	0.894	200.228	0.4
Cr	1A4ci	Solid	0.044	0.000	20.0	80.0	82.5	0.000	-98.926	0.0
Cr	1A4cii	Liquid	0.015	0.012	14.5	100.0	101.0	0.007	-18.644	0.0
Cr	1A4ciii	Liquid	0.003	0.002	15.0	100.0	101.1	0.000	-42.558	0.0
Cr	1A5a	Biomass	0.012	1.337	10.0	80.0	80.6	56.548	11139.626	3.2
Cr	1A5a	Liquid	0.009	0.002	19.8	80.0	82.4	0.000	-75.323	0.0
Cr	1B1b		0.003	0.004	30.0		30.0	0.000	19.333	0.0

Cr	2C1		19.554	2.078	30.0		30.0	18.901	-89.375	1.8
Cr	2C2		2.000	1.024	30.0		30.0	4.591	-48.800	0.9
Cr	2C7a		0.145	0.001	30.0		30.0	0.000	-99.429	0.0
Cr	2C7c		0.520	0.009	30.0		30.0	0.000	-98.248	0.0
Cr	2G		0.006	0.008	35.0	862.0	862.7	0.229	28.700	0.2
Cr	5C1bv		0.000	0.000	10.0	900.0	900.1	0.001	358.166	0.0
Cr	5E		0.003	0.001	35.0	108.0	113.5	0.000	-52.382	0.0
<b>Total</b>			<b>47.670</b>	<b>14.337</b>			<b>26.1</b>		<b>-69.925</b>	<b>11.1</b>

Pollutant	NFR	Fuel	Base year emissions, t	Year 2021 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Cu	1A1a	Biomass	0.174	0.766	7.8	80.0	80.4	2.483	340.948	0.6
Cu	1A1a	Liquid	0.034	0.003	7.3	80.0	80.3	0.000	-89.777	0.0
Cu	1A1a	Other	0.001	0.149	9.5	80.0	80.6	0.094	12507.957	0.1
Cu	1A1a	Peat	1.662	1.203	2.0	80.0	80.0	6.068	-27.630	0.9
Cu	1A1a	Solid	5.471	0.068	28.0	80.0	84.8	0.021	-98.765	0.1
Cu	1A1b	Liquid	0.902	1.178	5.0	80.0	80.2	5.845	30.606	0.9
Cu	1A1b	Solid	0.021	0.002	3.0	80.0	80.1	0.000	-89.675	0.0
Cu	1A2a	Biomass		0.001	10.0	80.0	80.6	0.000	NA	0.0
Cu	1A2b	Liquid	0.001	0.000	5.0	80.0	80.2	0.000	-72.639	0.0
Cu	1A2c	Biomass	0.001	0.000	5.0	80.0	80.2	0.000	-76.822	0.0
Cu	1A2c	Liquid	0.008	0.003	4.1	80.0	80.1	0.000	-62.423	0.0
Cu	1A2d	Biomass	0.813	0.352	25.2	80.0	83.9	0.570	-56.728	0.3
Cu	1A2d	Liquid	0.022	0.076	28.8	80.0	85.0	0.028	250.061	0.1
Cu	1A2d	Other	0.001	0.072	27.5	80.0	84.6	0.025	5156.766	0.1
Cu	1A2d	Peat	0.646	0.006	30.0		30.0	0.000	-99.092	0.0
Cu	1A2d	Solid	0.648	0.000	30.0		30.0	0.000	-99.970	0.0
Cu	1A2e	Biomass	0.009	0.007	9.2	80.0	80.5	0.000	-28.136	0.0
Cu	1A2e	Liquid	0.008	0.000	19.2	80.0	82.3	0.000	-95.326	0.0
Cu	1A2e	Other	0.000	0.002	10.0	80.0	80.6	0.000	738.700	0.0
Cu	1A2e	Peat	0.216	0.113	5.0	80.0	80.2	0.054	-47.790	0.1
Cu	1A2e	Solid	0.613	0.007	5.7	80.0	80.2	0.000	-98.933	0.0
Cu	1A2f	Biomass	0.000	0.002	10.4	80.0	80.7	0.000	1152.849	0.0
Cu	1A2f	Liquid	0.006	0.002	24.8	80.0	83.8	0.000	-72.224	0.0
Cu	1A2f	Other		0.003	30.0		30.0	0.000	NA	0.0
Cu	1A2f	Solid	1.280	0.295	4.6	80.0	80.1	0.366	-76.965	0.2
Cu	1A2gvii	Liquid	0.503	0.632	4.9	100.0	100.1	2.624	25.668	0.6
Cu	1A2gviii	Biomass	0.699	0.128	9.2	80.0	80.5	0.069	-81.708	0.1

Cu	1A2gviii	Liquid	0.022	0.000	4.3	80.0	80.1	0.000	-98.063	0.0
Cu	1A2gviii	Other	0.037	0.018	10.6	80.0	80.7	0.001	-50.768	0.0
Cu	1A2gviii	Peat	0.003	0.005	9.8	80.0	80.6	0.000	46.742	0.0
Cu	1A3bi	Diesel oil	0.002	0.004	1.0	100.0	100.0	0.000	102.897	0.0
Cu	1A3bi	Gasoline	0.008	0.005	2.0	100.0	100.0	0.000	-32.403	0.0
Cu	1A3bii	Diesel oil	0.001	0.002	1.0	100.0	100.0	0.000	18.940	0.0
Cu	1A3bii	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	-93.342	0.0
Cu	1A3biii	Diesel oil	0.006	0.008	1.0	100.0	100.0	0.000	47.577	0.0
Cu	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0
Cu	1A3biv	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	154.961	0.0
Cu	1A3bvi		49.238	29.313	1.0	100.0	100.0	5629.640	-40.467	26.4
Cu	1A3c	Liquid	0.103	0.039	2.0	100.0	100.0	0.010	-61.561	0.0
Cu	1A3dii	Liquid	0.100	0.013	14.1	100.0	101.0	0.001	-87.192	0.0
Cu	1A4ai	Biomass	0.013	0.021	20.0	80.0	82.5	0.002	62.073	0.0
Cu	1A4ai	Liquid	0.026	0.004	15.0	80.0	81.4	0.000	-84.605	0.0
Cu	1A4ai	Peat	0.026	0.024	15.0	80.0	81.4	0.002	-10.448	0.0
Cu	1A4aii	Liquid	0.227	0.167	12.9	100.0	100.8	0.185	-26.603	0.2
Cu	1A4bi	Biomass	0.248	0.319	20.0	80.0	82.5	0.452	28.627	0.2
Cu	1A4bi	Liquid	0.005	0.000	15.0	80.0	81.4	0.000	-98.556	0.0
Cu	1A4bi	Peat	0.143	0.036	15.0	80.0	81.4	0.006	-74.568	0.0
Cu	1A4bii	Liquid	0.075	0.098	11.5	100.0	100.7	0.063	30.672	0.1
Cu	1A4ci	Biomass	0.039	0.035	20.0	80.0	82.5	0.005	-10.076	0.0
Cu	1A4ci	Liquid	0.008	0.000	15.0	80.0	81.4	0.000	-96.690	0.0
Cu	1A4ci	Peat	0.088	0.264	10.0	80.0	80.6	0.297	200.228	0.2
Cu	1A4ci	Solid	0.016	0.000	20.0	80.0	82.5	0.000	-97.572	0.0
Cu	1A4cii	Liquid	0.499	0.406	14.5	100.0	101.0	1.100	-18.644	0.4
Cu	1A4ciii	Liquid	0.049	0.006	15.0	100.0	101.1	0.000	-86.945	0.0
Cu	1A5a	Biomass	0.017	1.949	10.0	80.0	80.6	16.168	11139.626	1.4
Cu	1A5a	Liquid	0.029	0.008	19.8	80.0	82.4	0.000	-72.971	0.0
Cu	1B1b		0.004	0.002	30.0		30.0	0.000	-45.500	0.0
Cu	2B10a		0.270	0.008	30.0		30.0	0.000	-97.111	0.0
Cu	2C1		5.540	0.458	29.9		29.9	0.123	-91.741	0.1
Cu	2C2		0.003	0.041	30.0		30.0	0.001	1495.620	0.0
Cu	2C6			0.015	30.0		30.0	0.000	NA	0.0
Cu	2C7a		4.803	0.006	30.0		30.0	0.000	-99.885	0.0
Cu	2C7c		80.257	0.485	30.0		30.0	0.139	-99.396	0.1
Cu	2G		0.203	0.239	35.0	350.0	351.7	4.613	17.591	0.8
Cu	5C1bv		0.000	0.000	10.0	900.0	900.1	0.000	358.166	0.0
Cu	5E		0.006	0.003	35.0	103.0	108.8	0.000	-52.328	0.0
<b>To- tal</b>			<b>156.893</b>	<b>39.070</b>			<b>75.3</b>		<b>-75.098</b>	<b>26.5</b>

Pollutant	NFR	Fuel	Base year emissions, t	Year 2021 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Ni	1A1a	Biomass	0.101	0.423	7.8	80.0	80.4	11.428	319.033	0.6
Ni	1A1a	Liquid	3.688	0.351	6.2	80.0	80.2	7.831	-90.482	0.5
Ni	1A1a	Other	0.001	0.129	9.6	80.0	80.6	1.071	19146.862	0.2
Ni	1A1a	Peat	1.066	0.756	2.0	80.0	80.0	36.137	-29.083	1.1
Ni	1A1a	Solid	5.396	0.106	29.3	80.0	85.2	0.803	-98.039	0.2
Ni	1A1b	Liquid	1.875	0.004	19.6	80.0	82.4	0.001	-99.771	0.0
Ni	1A1b	Solid	0.003	0.005	3.0	80.0	80.1	0.002	45.034	0.0
Ni	1A2a	Biomass		0.000	10.0	80.0	80.6	0.000	NA	0.0
Ni	1A2b	Liquid	0.124	0.031	5.0	80.0	80.2	0.060	-75.205	0.0
Ni	1A2b	Solid	1.115	0.007	5.0	80.0	80.2	0.003	-99.355	0.0
Ni	1A2c	Biomass	0.000	0.000	5.0	80.0	80.2	0.000	-41.109	0.0
Ni	1A2c	Liquid	0.833	0.369	4.1	80.0	80.1	8.610	-55.738	0.5
Ni	1A2d	Biomass	0.475	0.193	22.7	80.0	83.2	2.542	-59.419	0.3
Ni	1A2d	Liquid	2.234	0.191	3.3	80.0	80.1	2.299	-91.468	0.3
Ni	1A2d	Other	0.001	0.005	9.6	80.0	80.6	0.001	654.362	0.0
Ni	1A2d	Peat	0.412	0.024	29.4	80.0	85.2	0.041	-94.181	0.0
Ni	1A2d	Solid	1.036	0.001	29.1	80.0	85.1	0.000	-99.934	0.0
Ni	1A2e	Biomass	0.005	0.006	9.2	80.0	80.5	0.002	8.223	0.0
Ni	1A2e	Liquid	1.007	0.046	19.1	80.0	82.2	0.141	-95.432	0.1
Ni	1A2e	Other	0.003	0.001	10.0	80.0	80.6	0.000	-60.062	0.0
Ni	1A2e	Peat	0.138	0.072	5.0	80.0	80.2	0.328	-47.804	0.1
Ni	1A2e	Solid	1.401	0.014	5.0	80.0	80.2	0.012	-99.007	0.0
Ni	1A2f	Biomass	0.000	0.004	21.5	80.0	82.8	0.001	3217.383	0.0
Ni	1A2f	Liquid	0.676	0.038	5.4	80.0	80.2	0.091	-94.389	0.1
Ni	1A2f	Other		0.004	30.0		30.0	0.000	NA	0.0
Ni	1A2f	Solid	2.771	0.678	4.5	80.0	80.1	29.116	-75.545	1.0
Ni	1A2gvii	Liquid	0.021	0.026	4.9	100.0	100.1	0.067	25.668	0.0
Ni	1A2gviii	Biomass	0.212	0.076	9.0	80.0	80.5	0.367	-64.273	0.1
Ni	1A2gviii	Liquid	1.361	0.049	4.3	80.0	80.1	0.153	-96.385	0.1
Ni	1A2gviii	Other	0.021	0.014	15.0	80.0	81.4	0.012	-35.776	0.0
Ni	1A2gviii	Peat	0.002	0.003	9.6	80.0	80.6	0.001	55.922	0.0
Ni	1A3bi	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	102.897	0.0
Ni	1A3bi	Gasoline	0.004	0.003	2.0	100.0	100.0	0.001	-32.403	0.0
Ni	1A3bii	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	18.940	0.0
Ni	1A3bii	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	-93.342	0.0
Ni	1A3biii	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	47.577	0.0
Ni	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0

Ni	1A3biv	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	154.961	0.0
Ni	1A3bvi		0.164	0.187	1.0	100.0	100.0	3.449	13.915	0.3
Ni	1A3c	Liquid	0.004	0.002	2.0	100.0	100.0	0.000	-61.561	0.0
Ni	1A3dii	Liquid	1.280	0.192	14.1	100.0	101.0	3.702	-85.025	0.3
Ni	1A4ai	Biomass	0.058	0.103	20.0	80.0	82.5	0.715	77.778	0.2
Ni	1A4ai	Liquid	3.134	0.482	15.0	80.0	81.4	15.208	-84.617	0.7
Ni	1A4ai	Peat	0.017	0.015	15.0	80.0	81.4	0.015	-10.448	0.0
Ni	1A4aii	Liquid	0.009	0.007	12.9	100.0	100.8	0.005	-26.603	0.0
Ni	1A4bi	Biomass	1.239	1.593	20.0	80.0	82.5	170.456	28.627	2.4
Ni	1A4bi	Liquid	0.555	0.008	15.0	80.0	81.4	0.004	-98.556	0.0
Ni	1A4bi	Peat	0.091	0.023	15.0	80.0	81.4	0.035	-74.568	0.0
Ni	1A4bii	Liquid	0.003	0.004	11.5	100.0	100.7	0.002	30.672	0.0
Ni	1A4ci	Biomass	0.195	0.174	20.0	80.0	82.5	2.037	-10.671	0.3
Ni	1A4ci	Liquid	0.971	0.032	15.0	80.0	81.4	0.067	-96.693	0.0
Ni	1A4ci	Peat	0.056	0.168	10.0	80.0	80.6	1.814	200.228	0.2
Ni	1A4ci	Solid	0.035	0.000	20.0	80.0	82.5	0.000	-98.926	0.0
Ni	1A4cii	Liquid	0.021	0.017	14.5	100.0	101.0	0.028	-18.644	0.0
Ni	1A4ciii	Liquid	0.056	0.032	15.0	100.0	101.1	0.103	-42.558	0.1
Ni	1A5a	Biomass	0.010	1.146	10.0	80.0	80.6	84.322	11139.626	1.7
Ni	1A5a	Liquid	2.531	0.515	19.8	80.0	82.4	17.758	-79.669	0.8
Ni	1B1b		0.002	0.002	30.0		30.0	0.000	0.500	0.0
Ni	2B10a		1.052	0.022	30.0		30.0	0.004	-97.909	0.0
Ni	2C1		2.002	0.757	30.0		30.0	5.085	-62.188	0.4
Ni	2C2		0.017	0.049	30.0		30.0	0.022	190.000	0.0
Ni	2C7a		0.508	0.000	60.0		60.0	0.000	-99.951	0.0
Ni	2C7b		5.000	0.827	30.0		30.0	6.078	-83.460	0.4
Ni	2C7c		31.000	0.048	30.0		30.0	0.020	-99.847	0.0
Ni	2G		0.025	0.030	35.0	400.0	401.5	1.461	19.048	0.2
Ni	5C1bv		0.000	0.001	10.0	900.0	900.1	0.003	358.166	0.0
<b>Total</b>			<b>78.439</b>	<b>10.063</b>			<b>20.3</b>		<b>-87.170</b>	<b>3.7</b>

Pollutant	NFR	Fuel	Base year emissions, t	Year 2021 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Uncertainty introduced into the trend in total national emissions with respect to base year, %	
									Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	
Zn	1A1a	Biomass	2.327	11.244	5.5	80.0	80.2	41.460	383.284	1.9
Zn	1A1a	Liquid	0.170	0.016	6.1	80.0	80.2	0.000	-90.359	0.0
Zn	1A1a	Other	0.016	3.268	9.8	80.0	80.6	3.538	20512.534	0.5
Zn	1A1a	Peat	2.706	1.986	2.1	80.0	80.0	1.289	-26.577	0.3
Zn	1A1a	Solid	28.018	0.494	25.1	80.0	83.8	0.088	-98.236	0.1

Zn	1A1b	Liquid	3.869	5.051	5.0	80.0	80.2	8.358	30.538	0.8
Zn	1A1b	Solid	0.090	0.009	3.0	80.0	80.1	0.000	-89.675	0.0
Zn	1A2a	Biomass		0.008	10.0	80.0	80.6	0.000	NA	0.0
Zn	1A2b	Liquid	0.005	0.000	5.0	80.0	80.2	0.000	-92.647	0.0
Zn	1A2c	Biomass	0.014	0.004	5.0	80.0	80.2	0.000	-69.949	0.0
Zn	1A2c	Liquid	0.040	0.015	4.1	80.0	80.1	0.000	-62.773	0.0
Zn	1A2d	Biomass	10.754	1.212	7.6	80.0	80.4	0.484	-88.726	0.2
Zn	1A2d	Liquid	0.110	0.172	27.7	80.0	84.7	0.011	57.144	0.0
Zn	1A2d	Other	0.016	0.136	10.0	80.0	80.6	0.006	766.367	0.0
Zn	1A2d	Peat	0.999	0.016	13.2	80.0	81.1	0.000	-98.427	0.0
Zn	1A2d	Solid	3.342	0.002	5.0	80.0	80.2	0.000	-99.928	0.0
Zn	1A2e	Biomass	0.123	0.086	9.2	80.0	80.5	0.002	-30.279	0.0
Zn	1A2e	Liquid	0.040	0.002	19.1	80.0	82.3	0.000	-95.432	0.0
Zn	1A2e	Other	0.004	0.029	10.0	80.0	80.6	0.000	738.700	0.0
Zn	1A2e	Peat	0.328	0.170	5.0	80.0	80.2	0.009	-48.155	0.0
Zn	1A2e	Solid	2.627	0.041	12.3	80.0	80.9	0.001	-98.447	0.0
Zn	1A2f	Biomass	0.003	0.034	10.0	80.0	80.6	0.000	1257.190	0.0
Zn	1A2f	Liquid	0.327	1.060	4.6	80.0	80.1	0.368	223.824	0.2
Zn	1A2f	Other		0.906	10.0	80.0	80.6	0.272	NA	0.2
Zn	1A2f	Solid	5.497	1.431	4.6	80.0	80.1	0.670	-73.974	0.2
Zn	1A2gvii	Liquid	0.296	0.372	4.9	100.0	100.1	0.071	25.668	0.1
Zn	1A2gviii	Biomass	4.949	2.138	9.4	80.0	80.6	1.513	-56.807	0.4
Zn	1A2gviii	Liquid	0.055	0.002	3.7	80.0	80.1	0.000	-95.618	0.0
Zn	1A2gviii	Other	0.221	1.088	10.0	80.0	80.6	0.392	391.307	0.2
Zn	1A2gviii	Peat	0.005	0.018	10.0	80.0	80.6	0.000	236.391	0.0
Zn	1A3bi	Diesel oil	0.006	0.012	1.0	100.0	100.0	0.000	102.897	0.0
Zn	1A3bi	Gasoline	0.059	0.040	2.0	100.0	100.0	0.001	-32.403	0.0
Zn	1A3bii	Diesel oil	0.005	0.005	1.0	100.0	100.0	0.000	18.940	0.0
Zn	1A3bii	Gasoline	0.002	0.000	2.0	100.0	100.0	0.000	-93.342	0.0
Zn	1A3biii	Diesel oil	0.018	0.026	1.0	100.0	100.0	0.000	47.577	0.0
Zn	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0
Zn	1A3biv	Gasoline	0.000	0.001	2.0	100.0	100.0	0.000	154.961	0.0
Zn	1A3bvi		18.420	18.662	1.0	100.0	100.0	177.630	1.314	3.9
Zn	1A3c	Liquid	0.060	0.023	2.0	100.0	100.0	0.000	-61.561	0.0
Zn	1A3dii	Liquid	0.117	0.077	14.1	100.0	101.0	0.003	-34.333	0.0
Zn	1A4ai	Biomass	1.355	2.408	20.0	80.0	82.5	2.011	77.778	0.4
Zn	1A4ai	Liquid	0.125	0.019	15.0	80.0	81.4	0.000	-84.617	0.0
Zn	1A4ai	Peat	0.040	0.035	15.0	80.0	81.4	0.000	-10.448	0.0
Zn	1A4aii	Liquid	0.134	0.098	12.9	100.0	100.8	0.005	-26.603	0.0
Zn	1A4bi	Biomass	28.903	37.177	20.0	80.0	82.5	479.319	28.627	6.3
Zn	1A4bi	Liquid	0.022	0.000	15.0	80.0	81.4	0.000	-98.556	0.0
Zn	1A4bi	Peat	0.215	0.055	15.0	80.0	81.4	0.001	-74.568	0.0
Zn	1A4bii	Liquid	0.044	0.057	11.5	100.0	100.7	0.002	30.672	0.0
Zn	1A4ci	Biomass	4.550	4.065	20.0	80.0	82.5	5.728	-10.667	0.7
Zn	1A4ci	Liquid	0.039	0.001	15.0	80.0	81.4	0.000	-96.693	0.0
Zn	1A4ci	Peat	0.132	0.396	10.0	80.0	80.6	0.052	200.228	0.1
Zn	1A4ci	Solid	0.072	0.008	20.0	80.0	82.5	0.000	-88.960	0.0
Zn	1A4cii	Liquid	0.293	0.239	14.5	100.0	101.0	0.030	-18.644	0.0

Zn	1A4ciii	Liquid	0.067	0.038	15.0	100.0	101.1	0.001	-42.558	0.0
Zn	1A5a	Biomass	0.238	26.745	10.0	80.0	80.6	237.112	11139.626	4.5
Zn	1A5a	Liquid	0.111	0.032	19.8	80.0	82.4	0.000	-71.271	0.0
Zn	1B1b		0.160	0.006	30.0		30.0	0.000	-96.281	0.0
Zn	2B10a		0.010	0.250	60.0		60.0	0.011	2400.000	0.0
Zn	2C1		303.559	2.415	29.9		29.9	0.267	-99.204	0.1
Zn	2C2		0.100	1.661	30.0		30.0	0.127	1561.000	0.1
Zn	2C3		0.127	0.001	30.0		30.0	0.000	-99.378	0.0
Zn	2C6		90.174	13.607	30.0		30.0	8.498	-84.911	0.8
Zn	2C7a		2.563	0.005	30.0		30.0	0.000	-99.805	0.0
Zn	2C7c		160.391	0.633	30.0		30.0	0.018	-99.606	0.0
Zn	2G		0.116	0.215	35.0	669.0	669.9	1.058	84.598	0.3
Zn	5C1bv		0.001	0.006	10.0	900.0	900.1	0.001	358.166	0.0
<b>Total</b>			<b>682.839</b>	<b>140.029</b>			<b>31.2</b>		<b>-79.493</b>	<b>9.0</b>

Pollutant	NFR	Fuel	Base year emissions, g I-TEQ	Year 2021 emissions, g I-TEQ	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PCDD/F	1A1a	Biomass	0.151	1.878	43.1	1000.0	1000.9	30411.787	1145.307	180.2
PCDD/F	1A1a	Gaseous	0.020	0.015	117.1	1000.0	1006.8	1.847	-27.143	1.4
PCDD/F	1A1a	Liquid	0.007	0.006	281.2	1000.0	1038.8	0.282	-23.608	0.5
PCDD/F	1A1a	Other	0.002	1.199	34.7	1000.0	1000.6	12387.461	62835.685	115.0
PCDD/F	1A1a	Peat	0.747	0.417	104.9	1000.0	1005.5	1511.425	-44.195	40.2
PCDD/F	1A1a	Solid	0.411	0.144	263.4	1000.0	1034.1	190.969	-64.958	14.3
PCDD/F	1A1b	Biomass		0.001	10.0	1000.0	1000.0	0.007	NA	0.1
PCDD/F	1A1b	Gaseous	0.004	0.009	1.0	1000.0	1000.0	0.658	109.321	0.8
PCDD/F	1A1b	Liquid	0.019	0.022	3.7	1000.0	1000.0	4.022	13.526	2.1
PCDD/F	1A1b	Solid	0.000	0.000	3.0	1000.0	1000.0	0.000	-89.675	0.0
PCDD/F	1A2a	Biomass		0.000	10.0	1000.0	1000.0	0.000	NA	0.0
PCDD/F	1A2a	Gaseous	0.001	0.003	2.0	1000.0	1000.0	0.093	231.230	0.3
PCDD/F	1A2a	Liquid	0.001	0.000	4.4	1000.0	1000.0	0.000	-96.548	0.0
PCDD/F	1A2a	Solid	0.024	0.023	432.3	1000.0	1089.4	5.468	-3.704	2.4
PCDD/F	1A2b	Gaseous		0.000	4.8	1000.0	1000.0	0.000	NA	0.0
PCDD/F	1A2b	Liquid	0.000	0.000	2.7	1000.0	1000.0	0.001	-35.120	0.0
PCDD/F	1A2b	Solid	0.002	0.001	5.0	1000.0	1000.0	0.003	-65.861	0.1
PCDD/F	1A2c	Biomass	0.012	0.000	8.5	1000.0	1000.0	0.001	-97.929	0.0
PCDD/F	1A2c	Gaseous	0.001	0.001	3.9	1000.0	1000.0	0.017	63.314	0.1
PCDD/F	1A2c	Liquid	0.005	0.006	3.7	1000.0	1000.0	0.274	21.147	0.5
PCDD/F	1A2c	Other	0.014	0.000	10.0	1000.0	1000.0	0.000	-99.837	0.0

PCDD/F	1A2d	Biomass	0.808	0.412	100.9	1000.0	1005.1	1479.448	-48.957	39.7
PCDD/F	1A2d	Gaseous	0.016	0.034	376.8	1000.0	1068.6	11.408	119.669	3.5
PCDD/F	1A2d	Liquid	0.005	0.031	463.7	1000.0	1102.3	10.159	480.253	3.3
PCDD/F	1A2d	Other	0.009	0.241	454.7	1000.0	1098.5	601.142	2508.053	25.3
PCDD/F	1A2d	Peat	0.149	0.078	22.3	1000.0	1000.2	53.043	-47.474	7.5
PCDD/F	1A2d	Solid	0.045	0.001	15.7	1000.0	1000.1	0.005	-98.383	0.1
PCDD/F	1A2e	Biomass	0.007	0.007	8.6	1000.0	1000.0	0.437	7.084	0.7
PCDD/F	1A2e	Gaseous	0.000	0.000	2.9	1000.0	1000.0	0.000	-47.969	0.0
PCDD/F	1A2e	Liquid	0.002	0.000	2.9	1000.0	1000.0	0.001	-82.945	0.0
PCDD/F	1A2e	Other	0.000	0.001	10.0	1000.0	1000.0	0.007	738.700	0.1
PCDD/F	1A2e	Peat	0.028	0.011	5.0	1000.0	1000.0	0.969	-61.609	1.0
PCDD/F	1A2e	Solid	0.007	0.001	4.6	1000.0	1000.0	0.006	-88.125	0.1
PCDD/F	1A2f	Biomass	0.000	0.003	7.7	1000.0	1000.0	0.060	3405.369	0.3
PCDD/F	1A2f	Gaseous	0.001	0.001	3.0	1000.0	1000.0	0.002	-50.583	0.0
PCDD/F	1A2f	Liquid	0.002	0.001	101.3	1000.0	1005.1	0.015	-17.946	0.1
PCDD/F	1A2f	Other		0.001	500.0		500.0	0.003	NA	0.1
PCDD/F	1A2f	Solid	0.024	0.005	6.6	1000.0	1000.0	0.175	-81.524	0.4
PCDD/F	1A2gviii	Biomass	0.199	0.147	10.5	1000.0	1000.1	187.085	-26.048	14.1
PCDD/F	1A2gviii	Gaseous	0.000	0.000	4.6	1000.0	1000.0	0.001	-21.520	0.0
PCDD/F	1A2gviii	Liquid	0.003	0.010	442.0	1000.0	1093.3	1.067	290.571	1.1
PCDD/F	1A2gviii	Other	0.192	0.424	35.8	1000.0	1000.6	1552.815	120.691	40.7
PCDD/F	1A2gviii	Peat	0.004	0.007	32.6	1000.0	1000.5	0.482	95.903	0.7
PCDD/F	1A3bi	Diesel oil	0.008	0.270	1.0	1000.0	1000.0	629.363	3343.302	25.9
PCDD/F	1A3bi	Gasoline	0.962	0.187	2.0	1000.0	1000.0	301.913	-80.541	18.0
PCDD/F	1A3bii	Diesel oil	0.004	0.151	1.0	1000.0	1000.0	196.124	3464.730	14.5
PCDD/F	1A3bii	Gasoline	0.024	0.001	2.0	1000.0	1000.0	0.005	-96.736	0.1
PCDD/F	1A3biii	Diesel oil	0.217	0.062	1.0	1000.0	1000.0	33.591	-71.176	6.0
PCDD/F	1A3biv	Diesel oil		0.003	1.0	1000.0	1000.0	0.065	NA	0.3
PCDD/F	1A3biv	Gasoline	0.014	0.014	2.0	1000.0	1000.0	1.714	0.081	1.4
PCDD/F	1A3dii	Liquid	0.026	0.010	14.1	1000.0	1000.1	0.809	-62.139	0.9
PCDD/F	1A3ei	Gaseous	0.000	0.000	20.0	1000.0	1000.2	0.000	204.273	0.0
PCDD/F	1A4ai	Biomass	0.041	0.072	20.0	1000.0	1000.2	44.943	77.778	6.9
PCDD/F	1A4ai	Gaseous	0.000	0.001	10.0	1000.0	1000.0	0.003	81.127	0.1
PCDD/F	1A4ai	Liquid	0.012	0.005	13.0	1000.0	1000.1	0.248	-55.715	0.5
PCDD/F	1A4ai	Peat	0.002	0.002	15.0	1000.0	1000.1	0.030	-10.448	0.2
PCDD/F	1A4bi	Biomass	0.867	1.115	20.0	1000.0	1000.2	10712.552	28.627	106.9
PCDD/F	1A4bi	Gaseous	0.000	0.001	10.0	1000.0	1000.0	0.003	91.657	0.1
PCDD/F	1A4bi	Liquid	0.019	0.004	15.1	1000.0	1000.1	0.154	-78.080	0.4
PCDD/F	1A4bi	Other	0.000	0.000	10.0	1000.0	1000.0	0.000	-97.674	0.0
PCDD/F	1A4bi	Peat	0.011	0.003	15.0	1000.0	1000.1	0.072	-74.568	0.3
PCDD/F	1A4ci	Biomass	0.137	0.122	20.0	1000.0	1000.2	128.914	-10.367	11.7
PCDD/F	1A4ci	Gaseous	0.000	0.000	10.0	1000.0	1000.0	0.000	-80.138	0.0
PCDD/F	1A4ci	Liquid	0.004	0.002	14.0	1000.0	1000.1	0.035	-51.605	0.2
PCDD/F	1A4ci	Peat	0.007	0.021	10.0	1000.0	1000.0	3.802	200.228	2.0
PCDD/F	1A4ci	Solid	0.001	0.000	20.0	1000.0	1000.2	0.001	-32.672	0.0
PCDD/F	1A4ciii	Liquid	0.007	0.004	15.0	1000.0	1000.1	0.149	-42.558	0.4
PCDD/F	1A5a	Biomass	0.007	0.802	10.0	1000.0	1000.0	5542.270	11139.626	76.9
PCDD/F	1A5a	Gaseous	0.001	0.002	20.0	1000.0	1000.2	0.041	89.796	0.2

PCDD/F	1A5a	Liquid	0.009	0.006	14.1	1000.0	1000.1	0.268	-40.995	0.5
PCDD/F	1B1b		1.461	0.023	500.0		500.0	1.138	-98.426	1.1
PCDD/F	2A1		0.029	0.010	500.0		500.0	0.215	-66.094	0.5
PCDD/F	2A2		0.038	0.031	30.0	1000.0	1000.4	8.078	-19.586	2.9
PCDD/F	2A3		0.005	0.000	30.0	1000.0	1000.4	0.001	-93.366	0.0
PCDD/F	2B10a		3.000	0.700	500.0		500.0	1054.543	-76.667	33.5
PCDD/F	2C1		4.552	0.632	500.0		500.0	860.946	-86.105	30.3
PCDD/F	2C3		0.041	0.002	500.0		500.0	0.009	-95.103	0.1
PCDD/F	2C6		0.038	0.064	10.0	1000.0	1000.0	35.041	66.998	6.1
PCDD/F	2C7a		0.001	0.225	10.0	1000.0	1000.1	434.020	24792.156	21.5
PCDD/F	2D3b		0.016	0.011	30.0	1000.0	1000.4	1.043	-30.126	1.1
PCDD/F	2G		0.001	0.000	35.0	100.0	105.9	0.000	-59.475	0.0
PCDD/F	2L		0.029	0.014	60.0	1000.0	1001.8	1.771	-51.450	1.4
PCDD/F	5C1bv		0.000	0.001	10.0	900.0	900.1	0.006	358.166	0.1
PCDD/F	5E		0.201	1.062	35.0	1000.0	1000.6	9718.450	428.833	101.8
<b>Total</b>			<b>14.754</b>	<b>10.778</b>			<b>279.5</b>		<b>-26.947</b>	<b>288.8</b>

Pollutant	NFR	Fuel	Base year emissions, t	Year 2021 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PAH-4	1A1a	Biomass	0.019	0.256	81.2	1000.0	1003.3	163.745	1242.117	20.0
PAH-4	1A1a	Liquid	0.050	0.053	397.7	1000.0	1076.2	7.952	5.059	4.4
PAH-4	1A1a	Other	0.000	0.236	231.9	1000.0	1026.5	145.860	204646.087	18.9
PAH-4	1A1a	Peat	0.043	0.028	162.3	1000.0	1013.1	1.934	-35.371	2.2
PAH-4	1A1a	Solid	0.001	0.000	312.6	1000.0	1047.7	0.000	-73.934	0.0
PAH-4	1A1b	Liquid	0.006	0.007	4.9	1000.0	1000.0	0.109	12.584	0.5
PAH-4	1A1b	Solid	0.000	0.000	3.0	1000.0	1000.0	0.000	-89.675	0.0
PAH-4	1A2a	Biomass		0.000	10.0	1000.0	1000.0	0.000	NA	0.0
PAH-4	1A2a	Liquid	0.005	0.000	4.9	1000.0	1000.0	0.000	-97.363	0.0
PAH-4	1A2a	Solid	0.000	0.000	3.0	1000.0	1000.0	0.000	-96.815	0.0
PAH-4	1A2b	Liquid	0.003	0.002	3.1	1000.0	1000.0	0.007	-40.773	0.1
PAH-4	1A2b	Solid	0.000	0.000	4.7	1000.0	1000.0	0.000	-91.168	0.0
PAH-4	1A2c	Biomass	0.002	0.001	9.8	1000.0	1000.0	0.001	-64.827	0.1
PAH-4	1A2c	Liquid	0.009	0.003	4.8	1000.0	1000.0	0.029	-62.577	0.3
PAH-4	1A2d	Biomass	0.105	0.142	282.9	1000.0	1039.2	53.934	34.739	11.5
PAH-4	1A2d	Liquid	0.037	0.033	336.4	1000.0	1055.1	2.981	-11.189	2.7
PAH-4	1A2d	Other	0.001	0.049	10.0	1000.0	1000.0	5.900	8629.998	3.8
PAH-4	1A2d	Peat	0.009	0.005	2.0	1000.0	1000.0	0.056	-44.072	0.4
PAH-4	1A2d	Solid	0.000	0.000	5.0	1000.0	1000.0	0.000	-98.252	0.0

PAH-4	1A2e	Biomass	0.001	0.001	9.2	1000.0	1000.0	0.002	12.812	0.1
PAH-4	1A2e	Liquid	0.010	0.001	3.6	1000.0	1000.0	0.002	-90.647	0.1
PAH-4	1A2e	Other	0.000	0.000	10.0	1000.0	1000.0	0.000	738.700	0.0
PAH-4	1A2e	Peat	0.002	0.001	5.0	1000.0	1000.0	0.001	-61.609	0.0
PAH-4	1A2e	Solid	0.000	0.000	4.6	1000.0	1000.0	0.000	-88.125	0.0
PAH-4	1A2f	Biomass	0.000	0.000	10.0	1000.0	1000.0	0.000	3373.583	0.0
PAH-4	1A2f	Liquid	0.008	0.003	3.7	1000.0	1000.0	0.026	-60.136	0.3
PAH-4	1A2f	Other		0.004	10.0	1000.0	1000.0	0.031	NA	0.3
PAH-4	1A2f	Solid	0.000	0.000	4.6	1000.0	1000.0	0.000	-77.168	0.0
PAH-4	1A2gvii	Liquid	0.024	0.030	4.9	1000.0	1000.0	2.193	25.668	2.3
PAH-4	1A2gviii	Biomass	0.027	0.030	178.3	1000.0	1015.8	2.349	14.208	2.4
PAH-4	1A2gviii	Liquid	0.015	0.006	4.6	1000.0	1000.0	0.077	-63.196	0.4
PAH-4	1A2gviii	Other	0.017	0.160	11.3	1000.0	1000.1	63.268	843.693	12.4
PAH-4	1A2gviii	Peat	0.000	0.001	309.1	1000.0	1046.7	0.005	551.859	0.1
PAH-4	1A3bi	Diesel oil	0.025	0.051	1.0	1000.0	1000.0	6.507	102.897	4.0
PAH-4	1A3bi	Gasoline	0.047	0.032	2.0	1000.0	1000.0	2.496	-32.403	2.5
PAH-4	1A3bii	Diesel oil	0.015	0.017	1.0	1000.0	1000.0	0.738	18.940	1.3
PAH-4	1A3bii	Gasoline	0.001	0.000	2.0	1000.0	1000.0	0.000	-93.342	0.0
PAH-4	1A3biii	Diesel oil	0.077	0.114	1.0	1000.0	1000.0	32.372	47.577	8.9
PAH-4	1A3biv	Diesel oil		0.000	1.0	1000.0	1000.0	0.000	NA	0.0
PAH-4	1A3biv	Gasoline	0.000	0.001	2.0	1000.0	1000.0	0.004	154.961	0.1
PAH-4	1A3c	Liquid	0.005	0.002	2.0	1000.0	1000.0	0.009	-61.561	0.1
PAH-4	1A3dii	Liquid	0.004	0.002	12.5	1000.0	1000.1	0.009	-50.671	0.1
PAH-4	1A4ai	Biomass	0.001	0.002	20.0	200.0	201.0	0.000	68.215	0.0
PAH-4	1A4ai	Liquid	0.074	0.031	13.0	1000.0	1000.1	2.373	-58.023	2.4
PAH-4	1A4ai	Peat	0.000	0.000	15.0	1000.0	1000.1	0.000	-10.448	0.0
PAH-4	1A4aii	Liquid	0.011	0.008	12.9	1000.0	1000.1	0.152	-26.603	0.6
PAH-4	1A4bi	Biomass	17.153	18.573	20.0	200.0	201.0	34524.038	8.280	290.5
PAH-4	1A4bi	Liquid	0.109	0.024	15.0	1000.0	1000.1	1.393	-78.183	1.8
PAH-4	1A4bi	Other	0.000	0.000	10.0	1000.0	1000.0	0.000	-97.674	0.0
PAH-4	1A4bi	Peat	0.001	0.000	15.0	1000.0	1000.1	0.000	-74.568	0.0
PAH-4	1A4bii	Liquid	0.004	0.005	11.5	1000.0	1000.1	0.052	30.672	0.4
PAH-4	1A4ci	Biomass	0.003	0.003	20.0	200.0	201.0	0.001	-8.733	0.0
PAH-4	1A4ci	Liquid	0.025	0.011	14.6	1000.0	1000.1	0.289	-56.586	0.8
PAH-4	1A4ci	Peat	0.000	0.001	10.0	1000.0	1000.0	0.004	200.228	0.1
PAH-4	1A4ci	Solid	0.000	0.000	20.0	1000.0	1000.2	0.000	-32.672	0.0
PAH-4	1A4cii	Liquid	0.023	0.019	14.5	1000.0	1000.1	0.903	-18.644	1.5
PAH-4	1A4ciii	Liquid	0.001	0.001	15.0	1000.0	1000.1	0.001	-42.558	0.1
PAH-4	1A5a	Biomass	0.001	0.103	10.0	1000.0	1000.0	26.365	11139.626	8.0
PAH-4	1A5a	Liquid	0.045	0.013	19.8	1000.0	1000.2	0.415	-71.320	1.0
PAH-4	1B1b		0.000	0.000	500.0		500.0	0.000	23.078	0.0
PAH-4	2A1		0.000	0.000	500.0		500.0	0.000	43.561	0.0
PAH-4	2C1		0.132	0.010	10.0	1000.0	1000.0	0.259	-92.251	0.8
PAH-4	2C2			0.002	500.0		500.0	0.004	NA	0.1
PAH-4	2D3i		0.020	0.013	40.0	376.0	378.1	0.062	-33.414	0.4
PAH-4	2G		0.001	0.001	35.0	100.0	105.9	0.000	-59.506	0.0
PAH-4	5C1bv		0.000	0.001	10.0	900.0	900.1	0.003	358.166	0.1
<b>Total</b>			<b>18.174</b>	<b>20.091</b>			<b>187.2</b>		<b>10.549</b>	<b>292.7</b>

Pollutant	NFR	Fuel	Base year emissions, kg	Year 2021 emissions, kg	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, fraction	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
HCB	1A1a	Biomass	0.037	0.491	4.9	1000.0	1000.0	453.812	1244.899	19.5
HCB	1A1a	Other		0.004	10.0	1000.0	1000.0	0.031	NA	0.2
HCB	1A1a	Solid	0.001	0.000	1.0	1000.0	1000.0	0.000	-64.369	0.0
HCB	1A2a	Biomass		0.000	10.0	1000.0	1000.0	0.000	NA	0.0
HCB	1A2a	Solid	0.003	0.000	3.0	1000.0	1000.0	0.000	-85.848	0.0
HCB	1A2b	Solid	0.002	0.000	4.7	1000.0	1000.0	0.000	-94.969	0.0
HCB	1A2c	Biomass	0.003	0.000	5.0	1000.0	1000.0	0.000	-98.947	0.0
HCB	1A2d	Biomass	0.191	0.127	4.5	1000.0	1000.0	30.360	-33.654	5.0
HCB	1A2d	Other		0.000	10.0	1000.0	1000.0	0.000	NA	0.0
HCB	1A2d	Solid	0.007	0.000	5.0	1000.0	1000.0	0.000	-98.252	0.0
HCB	1A2e	Biomass	0.002	0.002	9.2	1000.0	1000.0	0.005	6.814	0.1
HCB	1A2e	Solid	0.001	0.000	4.6	1000.0	1000.0	0.000	-88.125	0.0
HCB	1A2f	Biomass	0.000	0.001	10.0	1000.0	1000.0	0.001	3373.583	0.0
HCB	1A2f	Solid	0.004	0.001	4.6	1000.0	1000.0	0.001	-77.168	0.0
HCB	1A2gviii	Biomass	0.049	0.055	9.4	1000.0	1000.0	5.591	11.193	2.2
HCB	1A2gviii		0.143	0.107	30.0	900.0	900.5	17.439	-25.316	3.8
HCB	1A2gviii	Other		0.001	10.0	1000.0	1000.0	0.001	NA	0.0
HCB	1A3bi	Diesel oil	0.020	0.040	1.0	1000.0	1000.0	3.017	102.897	1.6
HCB	1A3bi	Gaseous		0.001	3.0	1000.0	1000.0	0.001	NA	0.0
HCB	1A3bi	Gasoline	0.108	0.073	2.0	1000.0	1000.0	9.944	-32.403	2.9
HCB	1A3bii	Diesel oil	0.015	0.018	1.0	1000.0	1000.0	0.623	18.940	0.7
HCB	1A3bii	Gaseous		0.000	3.0	1000.0	1000.0	0.000	NA	0.0
HCB	1A3bii	Gasoline	0.004	0.000	2.0	1000.0	1000.0	0.000	-93.342	0.0
HCB	1A3biii	Diesel oil	0.059	0.088	1.0	1000.0	1000.0	14.477	47.577	3.5
HCB	1A3biii	Gaseous		0.000	3.0	1000.0	1000.0	0.000	NA	0.0
HCB	1A3biv	Diesel oil		0.000	1.0	1000.0	1000.0	0.000	NA	0.0
HCB	1A3biv	Gasoline	0.001	0.002	2.0	1000.0	1000.0	0.009	154.961	0.1
HCB	1A3dii	Liquid	0.010	0.005	14.1	1000.0	1000.1	0.054	-46.822	0.2
HCB	1A4ai	Biomass	0.010	0.017	20.0	1000.0	1000.2	0.557	80.105	0.7
HCB	1A4bi	Biomass	0.206	0.266	20.0	1000.0	1000.2	132.761	28.627	10.5
HCB	1A4ci	Biomass	0.033	0.029	20.0	1000.0	1000.2	1.584	-10.738	1.2
HCB	1A4ci	Solid		0.002	20.0	1000.0	1000.2	0.007	NA	0.1
HCB	1A4ciii	Liquid	0.004	0.003	15.0	1000.0	1000.1	0.012	-42.558	0.1
HCB	1A5a	Biomass		0.038	10.0	1000.0	1000.0	2.747	NA	1.5
HCB	1A5a	Liquid	0.001	0.001	30.0	1000.0	1000.4	0.001	16.576	0.0

HCB	2B10a		29.000	15.100	50.0		50.0	1072.746	-47.931	29.9
HCB	2C1		0.096	0.016	10.0	900.0	900.1	0.414	-82.787	0.6
HCB	2C3		0.033	0.039	10.0	1000.0	1000.0	2.926	20.722	1.6
HCB	2C7a		5.514	6.497	10.0	1000.0	1000.0	79450.667	17.821	257.6
HCB	2D3i		0.004	0.002	40.0	1000.0	1000.8	0.005	-62.192	0.1
HCB	3Df		0.057	0.020	10.0	1000.0	1000.0	0.743	-65.288	0.8
HCB	5C1bv		0.001	0.005	10.0	900.0	900.1	0.042	358.166	0.2
<b>To- tal</b>			<b>35.677</b>	<b>23.051</b>			<b>285.0</b>		<b>-35.388</b>	<b>260.4</b>

Pollutant	NFR	Fuel	Base year emissions, kg	Year 2021 emissions, kg	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2021, frac- tion	Inventory trend in national emissions for year 2021 increase with respect to base year, % of base year	Uncertainty introduced into the trend in to- tal national emissions with respect to base year, %
PCB	1A1a	Biomass	0.026	0.344	4.9	1000.0	1000.0	218.790	1244.899	17.0
PCB	1A1a	Other		0.003	10.0	1000.0	1000.0	0.015	NA	0.1
PCB	1A1a	Solid	0.000	0.000	1.0	1000.0	1000.0	0.000	-64.369	0.0
PCB	1A2a	Biomass		0.000	10.0	1000.0	1000.0	0.000	NA	0.0
PCB	1A2a	Solid	0.784	0.111	3.0	1000.0	1000.0	22.803	-85.848	5.5
PCB	1A2b	Solid	0.551	0.028	4.7	1000.0	1000.0	1.421	-94.969	1.4
PCB	1A2c	Biomass	0.000	0.000	5.0	1000.0	1000.0	0.000	-98.947	0.0
PCB	1A2d	Biomass	0.002	0.002	4.5	1000.0	1000.0	0.004	-33.654	0.1
PCB	1A2d	Other		0.000	10.0	1000.0	1000.0	0.000	NA	0.0
PCB	1A2d	Solid	1.907	0.033	5.0	1000.0	1000.0	2.057	-98.252	1.7
PCB	1A2e	Biomass	0.000	0.000	9.2	1000.0	1000.0	0.000	6.814	0.0
PCB	1A2e	Solid	0.298	0.035	4.6	1000.0	1000.0	2.315	-88.125	1.8
PCB	1A2f	Biomass	0.000	0.000	10.0	1000.0	1000.0	0.000	3373.583	0.0
PCB	1A2f	Solid	1.037	0.237	4.6	1000.0	1000.0	103.737	-77.168	11.7
PCB	1A2gviii	Biomass	0.001	0.001	9.4	1000.0	1000.0	0.001	11.193	0.0
PCB	1A2gviii		0.135	0.026	30.0	900.0	900.5	1.037	-80.510	1.2
PCB	1A2gviii	Other		0.000	10.0	1000.0	1000.0	0.000	NA	0.0
PCB	1A3bi	Diesel oil	0.000	0.000	1.0	1000.0	1000.0	0.000	589.386	0.0
PCB	1A3bi	Gasoline	0.000	0.000	2.0	1000.0	1000.0	0.000	-80.822	0.0
PCB	1A3bii	Diesel oil	0.000	0.000	1.0	1000.0	1000.0	0.000	614.563	0.0
PCB	1A3bii	Gasoline	0.000	0.000	2.0	1000.0	1000.0	0.000	-98.386	0.0
PCB	1A3biii	Diesel oil	0.000	0.000	1.0	1000.0	1000.0	0.000	-66.687	0.0
PCB	1A3biv	Diesel oil		0.000	1.0	1000.0	1000.0	0.000	NA	0.0
PCB	1A3biv	Gasoline	0.000	0.000	2.0	1000.0	1000.0	0.000	-76.900	0.0
PCB	1A3dii	Liquid	0.024	0.005	14.1	1000.0	1000.1	0.040	-80.750	0.2
PCB	1A4ai	Biomass	0.115	0.206	20.0	1000.0	1000.2	78.914	80.105	10.2
PCB	1A4ai	Liquid	0.002	0.001	13.0	1000.0	1000.1	0.002	-55.492	0.0

PCB	1A4ai	Peat	0.000	0.000	15.0	1000.0	1000.1	0.000	15.714	0.0
PCB	1A4bi	Biomass	2.477	3.187	20.0	1000.0	1000.2	18809.944	28.627	157.8
PCB	1A4bi	Liquid	0.003	0.001	15.0	1000.0	1000.1	0.001	-78.220	0.0
PCB	1A4bi	Peat	0.000	0.000	15.0	1000.0	1000.1	0.000	-74.568	0.0
PCB	1A4ci	Biomass	0.390	0.348	20.0	1000.0	1000.2	224.487	-10.738	17.2
PCB	1A4ci	Liquid	0.001	0.000	14.6	1000.0	1000.1	0.000	-87.144	0.0
PCB	1A4ci	Peat	0.000	0.000	10.0	1000.0	1000.0	0.000	197.595	0.0
PCB	1A4ci	Solid		0.000	20.0	1000.0	1000.2	0.000	NA	0.0
PCB	1A4ciii	Liquid	0.002	0.001	15.0	1000.0	1000.1	0.003	-42.558	0.1
PCB	1B1b		1.753	3.006	10.0	1000.0	1000.0	16731.919	71.451	148.9
PCB	2A1		3.298	3.040	10.0	1000.0	1000.0	17117.628	-7.825	150.6
PCB	2A2		0.000	0.000	30.0	1000.0	1000.4	0.000	-19.586	0.0
PCB	2C1		13.464	12.492	236.2	100.0	256.5	19011.453	-7.223	158.7
PCB	2C3		0.083	0.103	10.0	1000.0	1000.0	19.762	24.300	5.1
PCB	2C7a		0.001	0.000	10.0	67.0	67.7	0.000	-43.825	0.0
PCB	2C7c		0.002	0.015	30.0	1000.0	1000.4	0.415	750.386	0.7
PCB	5C1bv		0.003	0.014	10.0	900.0	900.1	0.306	358.166	0.6
<b>Total</b>			<b>28.558</b>	<b>23.239</b>			<b>269.0</b>		<b>-18.624</b>	<b>309.5</b>

## Annex 7

(Updated March 2024, TF)

According to the EMEP/EEA emission inventory guidebook 2023, "a key category is one that is prioritised within the national inventory system because it is significantly important for one or a number of air pollutants in a country's national inventory of air pollutants in terms of the absolute level, the trend, or the uncertainty in emissions".

The results of the key category analysis are used in prioritizing the inventory improvements. For the Finnish 2024 submission inventory, the Approach 1 methodology presented in the EMEP/EEA emission inventory guidebook 2023, including the level and the trend assessment, has been used to identify key categories for each pollutant. Key source categories are sources that together contribute with either 80 % of the level or 80 % of the overall trend of reported emissions.

The combined results of the level and trend analysis for the 2024 submission are presented below.

### NO<sub>x</sub>

NFR Code	Fuel	Pollutant	Identification criteria
1A2d	Biomass	NO <sub>x</sub>	L1, T1
1A1a	Biomass	NO <sub>x</sub>	L1, T1
1A3bi	Diesel oil	NO <sub>x</sub>	L1, T1
1A3biii	Diesel oil	NO <sub>x</sub>	L1, T1
1A1a	Solid	NO <sub>x</sub>	L1, T1
3Da1		NO <sub>x</sub>	L1, T1
1A3dii	Liquid	NO <sub>x</sub>	L1, T1
1A4bi	Biomass	NO <sub>x</sub>	L1, T1
1A5a	Biomass	NO <sub>x</sub>	L1, T1
1A3bii	Diesel oil	NO <sub>x</sub>	L1, T1
1A4cii	Liquid	NO <sub>x</sub>	L1, T1
1A3bi	Gasoline	NO <sub>x</sub>	L1, T1
1A2gvii	Liquid	NO <sub>x</sub>	L1
3Da2a		NO <sub>x</sub>	L1
1A2a	Solid	NO <sub>x</sub>	L1
1A5a	Liquid	NO <sub>x</sub>	L1
1A4ciii	Liquid	NO <sub>x</sub>	L1
1A3c	Liquid	NO <sub>x</sub>	L1
1A1a	Other	NO <sub>x</sub>	L1
1A1a	Gaseous	NO <sub>x</sub>	T1

### NMVOC

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	NMVOC	L1, T1
2D3a		NMVOC	L1, T1
2D3d		NMVOC	L1, T1
3B1a		NMVOC	L1, T1
3B1b		NMVOC	L1, T1

1A3bv		NMVOC	L1, T1
1A3dii	Liquid	NMVOC	L1
1B2av		NMVOC	L1
2B10a		NMVOC	L1
3Da2a		NMVOC	L1
1A4bii	Liquid	NMVOC	L1
2H2		NMVOC	L1
1B2aiv		NMVOC	L1
2D3g		NMVOC	L1
2D3i		NMVOC	L1
1A1a	Biomass	NMVOC	L1
1A3bi	Gasoline	NMVOC	T1
2D3h		NMVOC	T1
1A3biii	Diesel oil	NMVOC	T1
2D3c		NMVOC	T1
1A4aii	Liquid	NMVOC	T1

### SO<sub>x</sub>

NFR Code	Fuel	Pollutant	Identification criteria
1A1a	Solid	SO <sub>x</sub>	L1, T1
1A1b	Liquid	SO <sub>x</sub>	L1, T1
1A2b	Liquid	SO <sub>x</sub>	L1, T1
1A2b	Solid	SO <sub>x</sub>	L1, T1
2H1		SO <sub>x</sub>	L1, T1
1A2d	Biomass	SO <sub>x</sub>	L1, T1
2C1		SO <sub>x</sub>	L1, T1
1A1b	Gaseous	SO <sub>x</sub>	L1, T1
1A5a	Biomass	SO <sub>x</sub>	L1, T1
1A1a	Liquid	SO <sub>x</sub>	L1, T1
1A1a	Biomass	SO <sub>x</sub>	L1, T1
2B10a		SO <sub>x</sub>	L1
1A4ai	Liquid	SO <sub>x</sub>	L1
1A5a	Liquid	SO <sub>x</sub>	L1
1A2d	Liquid	SO <sub>x</sub>	T1
1A2d	Solid	SO <sub>x</sub>	T1
1A2a	Solid	SO <sub>x</sub>	T1
1A2gviii	Liquid	SO <sub>x</sub>	T1
1A2e	Liquid	SO <sub>x</sub>	T1
1A3biii	Diesel oil	SO <sub>x</sub>	T1
1A4ci	Solid	SO <sub>x</sub>	T1

### NH<sub>3</sub>

NFR Code	Fuel	Pollutant	Identification criteria
3Da2a		NH <sub>3</sub>	L1, T1
3B1a		NH <sub>3</sub>	L1, T1
3B1b		NH <sub>3</sub>	L1, T1

3Da1		NH3	L1, T1
3B3		NH3	L1, T1
3B4h		NH3	L1, T1
3Da3		NH3	L1
3B4gii		NH3	T1
3Da2c		NH3	T1
3B4e		NH3	T1
2H1		NH3	T1
6A		NH3	T1
1A3bi	Gasoline	NH3	T1

## PM2.5

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	PM2.5	L1, T1
1A2d	Biomass	PM2.5	L1, T1
1A3bvi		PM2.5	L1, T1
1A3bvii		PM2.5	L1, T1
2H2		PM2.5	L1, T1
1A5a	Biomass	PM2.5	L1, T1
2C1		PM2.5	L1, T1
1A3dii	Liquid	PM2.5	L1
1A2gvii	Liquid	PM2.5	L1
3Dc		PM2.5	L1
1B1c		PM2.5	L1
1A3biii	Diesel oil	PM2.5	T1
1A3bi	Diesel oil	PM2.5	T1
1A1a	Solid	PM2.5	T1
1A4cii	Liquid	PM2.5	T1
2H1		PM2.5	T1
1A1a	Liquid	PM2.5	T1

## PM10

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	PM10	L1, T1
1A3bvii		PM10	L1, T1
3Dc		PM10	L1, T1
1A5a	Biomass	PM10	L1, T1
1A2d	Biomass	PM10	L1, T1
1A3bvi		PM10	L1, T1
1A1a	Solid	PM10	L1, T1
2H2		PM10	L1
1A3biii	Diesel oil	PM10	T1
2C1		PM10	T1
1A3bi	Diesel oil	PM10	T1
1A4cii	Liquid	PM10	T1

2H1		PM10	T1
1A1a	Liquid	PM10	T1

## TSP

NFR Code	Fuel	Pollutant	Identification criteria
1A3bvii		TSP	L1, T1
1A4bi	Biomass	TSP	L1, T1
1A5a	Biomass	TSP	L1, T1
3Dc		TSP	L1, T1
1A3bvi		TSP	L1, T1
1A2d	Biomass	TSP	L1, T1
1A1a	Solid	TSP	L1, T1
3B4gi		TSP	L1
2C1		TSP	T1
1A3biii	Diesel oil	TSP	T1
1A3bi	Diesel oil	TSP	T1
1A2f	Solid	TSP	T1
2H1		TSP	T1
1B1c		TSP	T1
1A4cii	Liquid	TSP	T1
1A2d	Liquid	TSP	T1

## BC

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	BC	L1, T1
1A3bvi		BC	L1, T1
1A2gvii	Liquid	BC	L1, T1
1A5a	Biomass	BC	L1
1A3biii	Diesel oil	BC	T1
1A3bi	Diesel oil	BC	T1
1A4cii	Liquid	BC	T1

## CO

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	CO	L1, T1
1A4bii	Liquid	CO	L1, T1
1A5a	Biomass	CO	L1, T1
1A3bi	Gasoline	CO	L1, T1
1A1a	Biomass	CO	L1, T1
1A3dii	Liquid	CO	L1
1A4aii	Liquid	CO	T1

## Pb

NFR Code	Fuel	Pollutant	Identification criteria
1A1b	Liquid	Pb	L1, T1
1A2d	Biomass	Pb	L1, T1
1A5a	Biomass	Pb	L1, T1
2G		Pb	L1, T1
1A1a	Solid	Pb	L1
1A1a	Biomass	Pb	L1
1A2f	Solid	Pb	L1
1A4bi	Biomass	Pb	L1
1A3bi	Gasoline	Pb	T1
2C7c		Pb	T1
2C1		Pb	T1

## Cd

NFR Code	Fuel	Pollutant	Identification criteria
1A5a	Biomass	Cd	L1, T1
1A4bi	Biomass	Cd	L1, T1
1A2d	Biomass	Cd	L1, T1
1A1a	Biomass	Cd	L1, T1
2C7c		Cd	L1, T1
1A1b	Liquid	Cd	L1
2C6		Cd	T1

## Hg

NFR Code	Fuel	Pollutant	Identification criteria
1A1a	Solid	Hg	L1, T1
2C1		Hg	L1, T1
1A2d	Biomass	Hg	L1, T1
1A1a	Biomass	Hg	L1, T1
2B10a		Hg	L1, T1
5C1bv		Hg	L1, T1
1A5a	Biomass	Hg	L1, T1
1A4bi	Biomass	Hg	L1
1A1b	Liquid	Hg	L1
1A2gviii	Other	Hg	T1

## As

NFR Code	Fuel	Pollutant	Identification criteria
1A1b	Liquid	As	L1, T1
1A1a	Solid	As	L1, T1
2C7c		As	L1, T1

2C7a		As	L1, T1
1A2f	Solid	As	L1
1A2d	Biomass	As	L1
1A4ci	Solid	As	L1

## Cr

NFR Code	Fuel	Pollutant	Identification criteria
1A1b	Liquid	Cr	L1, T1
2C1		Cr	L1, T1
1A4bi	Biomass	Cr	L1, T1
1A3bvi		Cr	L1, T1
1A5a	Biomass	Cr	L1, T1
2C2		Cr	L1, T1
1A1a	Solid	Cr	L1, T1
1A2d	Solid	Cr	T1

## Cu

NFR Code	Fuel	Pollutant	Identification criteria
1A3bvi		Cu	L1, T1
1A5a	Biomass	Cu	L1, T1
2C7c		Cu	T1

## Ni

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	Ni	L1, T1
2C7b		Ni	L1, T1
1A5a	Biomass	Ni	L1, T1
2C1		Ni	L1, T1
1A2f	Solid	Ni	L1, T1
1A1a	Biomass	Ni	L1, T1
1A2c	Liquid	Ni	L1, T1
2C7c		Ni	L1, T1
1A1a	Solid	Ni	L1
1A4ai	Liquid	Ni	L1
1A5a	Liquid	Ni	L1
1A1a	Liquid	Ni	L1
1A1b	Liquid	Ni	T1
1A3bvi		Ni	T1
1A4ci	Biomass	Ni	T1
1A2d	Solid	Ni	T1

## Se

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	Se	L1, T1
2C7a		Se	L1, T1
1A4ci	Biomass	Se	L1
2C7c		Se	T1

## Zn

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	Zn	L1, T1
1A5a	Biomass	Zn	L1, T1
1A3bvi		Zn	L1, T1
1A1a	Biomass	Zn	L1, T1
2C6		Zn	L1
1A1b	Liquid	Zn	L1
1A4ci	Biomass	Zn	L1
2C1		Zn	T1
2C7c		Zn	T1

## PCDD/F

NFR Code	Fuel	Pollutant	Identification criteria
1A1a	Biomass	PCDD/F	L1, T1
5E		PCDD/F	L1, T1
1A4bi	Biomass	PCDD/F	L1, T1
1A1a	Other	PCDD/F	L1, T1
2B10a		PCDD/F	L1, T1
1A5a	Biomass	PCDD/F	L1, T1
2C1		PCDD/F	L1, T1
1A1a	Solid	PCDD/F	L1
1A2d	Biomass	PCDD/F	L1
1B1b		PCDD/F	T1

## PAH-4

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	PAH-4	L1, T1
1A1a	Biomass	PAH-4	T1
1A1a	Other	PAH-4	T1
1A2d	Biomass	PAH-4	T1
2C1		PAH-4	T1
1A2gviii	Other	PAH-4	T1
1A5a	Biomass	PAH-4	T1
1A4bi	Liquid	PAH-4	T1

## HCB

NFR Code	Fuel	Pollutant	Identification criteria
2B10a		HCB	L1, T1
2C7a		HCB	L1, T1

## PCB

NFR Code	Fuel	Pollutant	Identification criteria
2A1		PCB	L1, T1
1A4bi	Biomass	PCB	L1, T1
1B1b		PCB	L1, T1
2C1		PCB	L1
1A2d	Solid	PCB	T1
1A2a	Solid	PCB	T1
1A2f	Solid	PCB	T1

# Level and Trend Key Category Analysis to the 2024 Submission

## Level analysis

The key category assessment by level for the 2024 submission is presented below.

NOx

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A2d	Biomass	10.742	10.742	Yes	2B10a		0.151	98.017	
1A1a	Biomass	8.117	18.858	Yes	3B1b		0.145	98.162	
1A3bi	Diesel oil	7.181	26.039	Yes	1A2b	Liquid	0.140	98.302	
1A3biii	Diesel oil	6.947	32.986	Yes	1A3biv	Gasoline	0.129	98.431	
1A1a	Solid	6.458	39.444	Yes	1A2gviii	Solid	0.128	98.559	
3Da1		5.877	45.321	Yes	1A4ci	Solid	0.126	98.686	
1A3dii	Liquid	4.912	50.232	Yes	1A3aii(i)	Liquid	0.125	98.811	
1A2gvii	Liquid	4.553	54.785	Yes	1A2f	Gaseous	0.111	98.922	
1A4bi	Biomass	3.933	58.719	Yes	3Da2b		0.110	99.032	
1A5a	Biomass	3.615	62.334	Yes	1A2gviii	Gaseous	0.099	99.131	
1A3bii	Diesel oil	3.480	65.813	Yes	3B4gii		0.096	99.226	
3Da2a		2.560	68.373	Yes	1A2c	Gaseous	0.077	99.303	
1A2a	Solid	2.052	70.425	Yes	1A2e	Biomass	0.064	99.367	
1A4cii	Liquid	1.890	72.315	Yes	1A2e	Liquid	0.053	99.420	
1A5a	Liquid	1.784	74.099	Yes	1A4ai	Gaseous	0.052	99.472	
1A4ciii	Liquid	1.696	75.795	Yes	1A3bii	Gasoline	0.051	99.523	
1A3bi	Gasoline	1.659	77.454	Yes	3B1a		0.043	99.567	
1A3c	Liquid	1.337	78.791	Yes	3B4gi		0.042	99.609	
1A1a	Other	1.327	80.118	Yes	1A2a	Liquid	0.042	99.651	
1A1b	Liquid	1.293	81.411		1A4bi	Gaseous	0.039	99.691	
1A2gviii	Biomass	1.193	82.604		1A1b	Biomass	0.035	99.725	
1A2c	Liquid	1.092	83.696		3B4e		0.031	99.756	
1A1a	Liquid	1.019	84.714		1A3biv	Diesel oil	0.030	99.786	
1A4aii	Liquid	1.011	85.725		1A3biii	Gaseous	0.029	99.815	
1A2f	Solid	0.940	86.665		3B4h		0.023	99.838	
1A4bii	Liquid	0.919	87.584		1A2f	Biomass	0.023	99.860	
1A2a	Gaseous	0.893	88.477		1A2b	Solid	0.020	99.881	
1A4ai	Liquid	0.882	89.359		1A2c	Biomass	0.018	99.899	
1A2d	Liquid	0.870	90.229		1A4bi	Solid	0.014	99.913	
1A2d	Gaseous	0.680	90.909		1A2e	Gaseous	0.013	99.926	
3Da3		0.584	91.492		1A4ai	Solid	0.013	99.939	
1A2f	Liquid	0.566	92.058		3B4giii		0.009	99.948	
1A3ai(i)	Liquid	0.561	92.619		3B2		0.008	99.956	
1A2gviii	Other	0.557	93.177		1A3bi	Gaseous	0.007	99.963	
1A4ci	Biomass	0.503	93.679		1A4ci	Gaseous	0.005	99.969	
1A4bi	Liquid	0.489	94.168		3B3		0.005	99.974	
1A2f	Other	0.489	94.657		1A2c	Other	0.005	99.978	

1A2d	Other	0.386	95.043	3B4giv		0.004	99.982
1A1a	Gaseous	0.373	95.417	2G		0.004	99.986
2B2		0.352	95.769	1A2b	Gaseous	0.004	99.990
1A2d	Solid	0.345	96.114	1A1b		0.003	99.993
1A4ci	Liquid	0.327	96.441	1A2a	Biomass	0.003	99.996
3Da2c		0.287	96.728	1A1b	Solid	0.001	99.998
1A1b	Gaseous	0.265	96.993	1A3ei	Gaseous	0.001	99.999
1A4ai	Biomass	0.260	97.253	1A3bii	Gaseous	0.001	99.999
1A2gviii	Liquid	0.247	97.5	3B4d		0.000	100
1A5a	Gaseous	0.214	97.715	1A4bi	Other	0.000	100
1A2e	Solid	0.152	97.866				

## NMVOC

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	24.01	24.010	Yes	1A2gviii	Other	0.031	99.495	
2D3a		8.868	32.878	Yes	1A5a	Gaseous	0.028	99.523	
2D3d		7.779	40.658	Yes	1A4ci	Liquid	0.027	99.550	
3B1a		7.556	48.213	Yes	3B4giv		0.027	99.577	
3B1b		5.067	53.280	Yes	1A4ci	Biomass	0.026	99.604	
1A3dii	Liquid	3.868	57.149	Yes	1A2d	Other	0.026	99.630	
1B2av		3.277	60.426	Yes	1A1a	Liquid	0.025	99.656	
2B10a		2.955	63.380	Yes	1A1a	Gaseous	0.024	99.680	
3Da2a		2.784	66.164	Yes	1A3aii(i)	Liquid	0.023	99.703	
1A4bii	Liquid	2.724	68.888	Yes	1A4ai	Solid	0.022	99.725	
2H2		2.498	71.386	Yes	1A3bii	Gasoline	0.021	99.746	
1B2aiv		2.487	73.872	Yes	2G		0.019	99.766	
2D3g		1.941	75.814	Yes	1A1b	Gaseous	0.018	99.784	
2D3i		1.881	77.695	Yes	1A2d	Gaseous	0.017	99.801	
1A1a	Biomass	1.837	79.531	Yes	5D2		0.016	99.818	
1A3bv		1.597	81.129	Yes	1A2d	Solid	0.013	99.831	
2I		1.528	82.657		1A4ai	Biomass	0.013	99.843	
1A4cii	Liquid	1.512	84.169		1A2a	Solid	0.012	99.855	
1A2gvii	Liquid	1.283	85.453		1A2f	Other	0.011	99.866	
3De		1.240	86.692		1A2e	Solid	0.010	99.877	
2H1		1.235	87.927		1A2d	Liquid	0.010	99.887	
1A3bi	Gasoline	1.169	89.096		1A2gviii	Liquid	0.010	99.896	
3B4gii		1.063	90.159		5D1		0.009	99.905	
1A3biv	Gasoline	1.054	91.213		1A3biv	Diesel oil	0.008	99.913	
2D3e		0.793	92.006		1A2c	Gaseous	0.008	99.921	
3B4h		0.653	92.659		1A2e	Biomass	0.007	99.928	
1A4aii	Liquid	0.544	93.203		3B4d		0.007	99.935	
2D3h		0.487	93.690		1A4ai	Gaseous	0.006	99.941	
1A5a	Biomass	0.476	94.166		1A4bi	Gaseous	0.005	99.946	
1A1a	Solid	0.417	94.583		1A2a	Gaseous	0.005	99.951	
3B4gi		0.341	94.924		1A3bi	Gaseous	0.005	99.956	

1B2b		0.331	95.255	1A2gviii	Solid	0.004	99.960
1A2d	Biomass	0.322	95.577	1A2f	Liquid	0.004	99.964
2D3b		0.310	95.887	1A2f	Biomass	0.004	99.968
3B4e		0.306	96.193	1A2gviii	Gaseous	0.003	99.971
3B3		0.301	96.494	2A3		0.003	99.974
1A1a	Other	0.297	96.792	1A2f	Solid	0.003	99.977
1A4ci	Solid	0.291	97.082	1A3biii	Gaseous	0.003	99.980
2C1		0.276	97.359	2C7c		0.003	99.983
1A3biii	Diesel oil	0.265	97.624	2L		0.003	99.986
1A3bii	Diesel oil	0.233	97.857	1A2c	Liquid	0.002	99.988
3B2		0.189	98.046	2C2		0.002	99.990
1A5a	Liquid	0.167	98.212	1A2b	Liquid	0.002	99.991
1A2gviii	Biomass	0.166	98.378	2C3		0.001	99.993
1A4ciii	Liquid	0.104	98.483	1A2e	Liquid	0.001	99.994
1A3c	Liquid	0.099	98.581	1A1b	Biomass	0.001	99.995
1A3bi	Diesel oil	0.092	98.674	1A2f	Gaseous	0.001	99.996
3Da3		0.092	98.766	1A2a	Biomass	0.001	99.997
5A		0.088	98.854	2C7a		0.001	99.997
1B1b		0.082	98.936	1A4ci	Gaseous	0.001	99.998
1A3ai(i)	Liquid	0.079	99.015	1A2c	Biomass	0.000	99.999
1A1b	Liquid	0.074	99.090	1A3bii	Gaseous	0.000	99.999
2B10b		0.070	99.160	1A2e	Gaseous	0.000	99.999
1A4ai	Liquid	0.069	99.228	1A2a	Liquid	0.000	100
2A1		0.046	99.275	1A2b	Solid	0.000	100
3B4giii		0.041	99.316	1A2b	Gaseous	0.000	100
1A4bi	Liquid	0.040	99.356	1A3ei	Gaseous	0.000	100
1A4bi	Solid	0.037	99.393	1A2c	Other	0.000	100
2D3c		0.036	99.430	1A1b	Solid	0.000	100
2C7b		0.034	99.464	1A4bi	Other	0.000	100

## SO<sub>x</sub>

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A1a	Solid	26.369	26.369	Yes	1A3biii	Diesel oil	0.064	99.650	
1A1b	Liquid	7.301	33.670	Yes	1A3ai(i)	Liquid	0.039	99.689	
1A2b	Liquid	6.220	39.890	Yes	1A2gviii	Gaseous	0.030	99.719	
2B10a		5.292	45.182	Yes	1A2a	Liquid	0.030	99.748	
1A2b	Solid	4.656	49.838	Yes	1A3bi	Diesel oil	0.027	99.775	
1A4ai	Liquid	4.605	54.443	Yes	1A1b		0.026	99.802	
2H1		4.411	58.854	Yes	1A2f	Other	0.024	99.825	
1A1a	Biomass	4.115	62.969	Yes	1A2f	Gaseous	0.023	99.849	
1A2d	Biomass	3.969	66.937	Yes	1A2gvii	Liquid	0.019	99.868	
2C1		3.737	70.674	Yes	2G		0.018	99.886	
1A1b	Gaseous	3.669	74.344	Yes	1A1b	Biomass	0.016	99.903	
1A5a	Biomass	3.163	77.507	Yes	1A2c	Biomass	0.016	99.919	
1A1a	Liquid	2.022	79.529	Yes	1A3bii	Diesel oil	0.013	99.932	

1A5a	Liquid	1.894	81.423	Yes	1A4cii	Liquid	0.012	99.944
1A2c	Liquid	1.874	83.297		2C2		0.011	99.955
1A2d	Liquid	1.869	85.166		1A2f	Biomass	0.010	99.965
1A4bi	Liquid	1.166	86.331		1A4aii	Liquid	0.005	99.970
1A2f	Solid	1.155	87.486		1A1b	Solid	0.005	99.975
1A2d	Solid	1.124	88.610		1A4bii	Liquid	0.003	99.978
1A4ci	Solid	1.097	89.707		2L		0.003	99.981
1A4bi	Biomass	1.076	90.783		1A1a	Gaseous	0.003	99.984
1A2a	Solid	0.954	91.737		1A2c	Gaseous	0.003	99.987
1A4ci	Liquid	0.883	92.620		2D3i		0.002	99.989
1B1b		0.859	93.480		1A3biv	Gasoline	0.002	99.991
1A2e	Solid	0.721	94.201		1A2a	Gaseous	0.002	99.993
1A1a	Other	0.695	94.896		1A4ciii	Liquid	0.002	99.995
1A2f	Liquid	0.691	95.586		1A2d	Gaseous	0.002	99.996
1A2gviii	Biomass	0.621	96.207		1A2a	Biomass	0.001	99.998
2C7a		0.498	96.705		1A3c	Liquid	0.001	99.999
2C7b		0.365	97.070		1A3bii	Gasoline	0.000	99.999
1A2gviii	Solid	0.358	97.428		1A4ai	Gaseous	0.000	99.999
1A5a	Gaseous	0.319	97.747		2C7c		0.000	100
1A2gviii	Liquid	0.305	98.052		1A4bi	Gaseous	0.000	100
1A2d	Other	0.287	98.339		1A3bi	Gaseous	0.000	100
1A3dii	Liquid	0.226	98.565		1A3biii	Gaseous	0.000	100
1A2e	Liquid	0.198	98.763		1A3biv	Diesel oil	0.000	100
1A3ai(i)	Liquid	0.153	98.916		1A2e	Gaseous	0.000	100
1A4ci	Biomass	0.140	99.056		1A4bi	Other	0.000	100
1A4bi	Solid	0.111	99.167		2D3g		0.000	100
1A2e	Biomass	0.109	99.277		1A4ci	Gaseous	0.000	100
1A2gviii	Other	0.089	99.365		1A2b	Gaseous	0.000	100
1A4ai	Solid	0.080	99.446		1A3bii	Gaseous	0.000	100
1A4ai	Biomass	0.071	99.517		1A3ei	Gaseous	0.000	100
1A3bi	Gasoline	0.069	99.586		1A2c	Other	0.000	100

### NH3

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
3Da2a		20.646	20.646	Yes	1A3bi	Diesel oil	0.073	99.667	
3B1a		17.287	37.933	Yes	1A1a		0.050	99.717	
3B1b		16.447	54.380	Yes	1A2gviii		0.033	99.750	
3Da1		11.196	65.575	Yes	1A4ci	Biomass	0.033	99.783	
3B3		7.509	73.085	Yes	1A3bi	Gaseous	0.030	99.813	
3Da3		4.544	77.628	Yes	1A3bii	Diesel oil	0.028	99.841	
3B4h		3.251	80.879	Yes	2G		0.027	99.868	
1A4bi	Biomass	3.237	84.116		3B4d		0.025	99.893	
6A		2.234	86.350		2L		0.022	99.915	
3B4e		2.168	88.518		1A4ai	Biomass	0.017	99.932	
3B4gii		1.997	90.515		2D3e		0.013	99.945	

3Da2c		1.804	92.319	1B1b		0.009	99.955
1A3bi	Gasoline	1.682	94.001	1A2gvii	Liquid	0.009	99.964
5D1		1.216	95.218	2D3g		0.007	99.971
3B4gi		0.793	96.011	1A4cii	Liquid	0.006	99.977
5B2		0.766	96.777	1A3biv	Gasoline	0.006	99.983
2B10a		0.670	97.447	1A3bii	Gasoline	0.004	99.987
3B2		0.392	97.839	1A3dii	Liquid	0.003	99.989
2D3i		0.383	98.222	1A3biii	Gaseous	0.002	99.992
3B4giii		0.276	98.498	1A4aii	Liquid	0.002	99.994
5B1		0.274	98.773	1A3bii	Gaseous	0.002	99.996
3Da2b		0.235	99.008	2C7c		0.001	99.998
2H1		0.177	99.185	1A4bii	Liquid	0.001	99.998
2C1		0.114	99.299	1A4ciii	Liquid	0.001	99.999
2C7b		0.104	99.403	1A3c	Liquid	0.000	100
3B4giv		0.096	99.499	1A5a	Liquid	0.000	100
1A3biii	Diesel oil	0.095	99.594	1A3biv	Diesel oil	0.000	100

## PM2.5

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	54.422	54.422	Yes	1A2d	Other	0.052	99.449	
1A2d	Biomass	4.882	59.304	Yes	1A2gviii	Liquid	0.048	99.496	
1A3bvi		4.537	63.840	Yes	3B4e		0.045	99.541	
1A3bvii		3.361	67.201	Yes	2C7c		0.040	99.581	
2H2		2.979	70.180	Yes	3B4h		0.039	99.621	
1A5a	Biomass	2.682	72.862	Yes	1A3biv	Diesel oil	0.037	99.658	
1A3dii	Liquid	2.162	75.024	Yes	1A2d	Solid	0.035	99.692	
1A2gvii	Liquid	1.703	76.727	Yes	2A3		0.034	99.727	
3Dc		1.589	78.316	Yes	1A3ai(i)	Liquid	0.033	99.759	
1B1c		1.523	79.839	Yes	3B4giii		0.022	99.781	
2C1		1.472	81.311	Yes	1A2c	Biomass	0.019	99.800	
2H1		1.312	82.623		1A2e	Liquid	0.019	99.819	
2B10a		1.103	83.726		1A2b	Liquid	0.018	99.838	
1A3bii	Diesel oil	1.098	84.824		3B3		0.014	99.852	
1A3bi	Diesel oil	1.056	85.881		1A4ai	Solid	0.013	99.865	
1A4cii	Liquid	1.052	86.933		2B10b		0.011	99.875	
5E		0.910	87.843		5C1bv		0.010	99.886	
1A4bii	Liquid	0.909	88.751		3B2		0.010	99.895	
1A3biii	Diesel oil	0.741	89.492		1A3aii(i)	Liquid	0.009	99.904	
1A2gviii	Biomass	0.712	90.204		2A5b		0.009	99.913	
1A1a	Solid	0.712	90.916		1A1a	Other	0.009	99.921	
1A4ci	Biomass	0.709	91.625		1A2f	Solid	0.009	99.930	
1A4ai	Liquid	0.625	92.249		1A2f	Other	0.008	99.938	
2C2		0.569	92.818		1A2e	Biomass	0.008	99.945	
1A2d	Liquid	0.519	93.337		1A2a	Solid	0.007	99.953	
1A4aii	Liquid	0.513	93.850		1A2gviii	Solid	0.007	99.960	

2G		0.412	94.261		2D3g		0.005	99.965
1A1a	Biomass	0.412	94.673		2D3d		0.005	99.969
2D3b		0.410	95.083		2B6		0.005	99.974
3B1a		0.393	95.476		2C7d		0.004	99.978
2D3i		0.382	95.857		2C7a		0.003	99.981
1A4ai	Biomass	0.378	96.235		1A3bi	Gaseous	0.003	99.984
3B1b		0.346	96.581		1A2e	Solid	0.002	99.986
1A4bi	Solid	0.335	96.916		1B2aiv		0.002	99.988
1A4ciii	Liquid	0.305	97.221		2I		0.002	99.990
1A3bi	Gasoline	0.241	97.462		2A5a		0.002	99.991
1A5a	Liquid	0.231	97.693		2A2		0.001	99.992
1A4bi	Liquid	0.223	97.916		1A2gviii	Other	0.001	99.993
2A5c		0.203	98.119		1A2b	Solid	0.001	99.995
1A3c	Liquid	0.186	98.305		1A3bii	Gasoline	0.001	99.996
1A4ci	Solid	0.167	98.471		2C3		0.001	99.996
1A2c	Liquid	0.156	98.628		1A3biii	Gaseous	0.001	99.997
1A1b	Liquid	0.120	98.748		5A		0.001	99.997
1A1a	Liquid	0.109	98.857		1A2a	Liquid	0.001	99.998
3B4gi		0.082	98.939		1A2f	Biomass	0.000	99.998
3B4giv		0.081	99.020		3B4d		0.000	99.999
1A3biv	Gasoline	0.072	99.092		1B2av		0.000	99.999
3B4gii		0.071	99.163		1A1b	Solid	0.000	100
1A2f	Liquid	0.062	99.225		1A3bii	Gaseous	0.000	100
2L		0.062	99.287		2C6		0.000	100
1B1b		0.057	99.344		1A2a	Biomass	0.000	100
1A4ci	Liquid	0.053	99.397		1A4bi	Other	0.000	100

## PM10

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	28.079	28.079	Yes	1B1b		0.068	99.253	
1A3bvii		19.878	47.957	Yes	3B4giii		0.060	99.314	
3Dc		14.379	62.336	Yes	2L		0.048	99.362	
1A5a	Biomass	6.970	69.306	Yes	1A2gviii	Liquid	0.047	99.410	
1A2d	Biomass	4.164	73.470	Yes	2B10b		0.042	99.452	
1A3bvi		4.115	77.585	Yes	3B4h		0.039	99.491	
2H2		1.545	79.130	Yes	1A2d	Solid	0.039	99.530	
1A1a	Solid	1.495	80.625	Yes	1A3biv	Gasoline	0.036	99.565	
2B10a		1.384	82.009		1A2f	Solid	0.036	99.601	
2H1		1.160	83.168		3B4e		0.035	99.637	
1A3dii	Liquid	1.103	84.271		1A4ai	Solid	0.035	99.671	
1B1c		1.084	85.355		2A5b		0.033	99.704	
2A5c		0.989	86.344		2C7c		0.024	99.728	
1A1a	Biomass	0.905	87.249		2C7d		0.021	99.748	
1A2gviii	Biomass	0.851	88.100		1A1a	Other	0.021	99.769	
1A2gvii	Liquid	0.851	88.951		1A2e	Liquid	0.020	99.789	

2C1		0.800	89.751	2A3		0.019	99.809
1A4ai	Liquid	0.553	90.304	1A3biv	Diesel oil	0.019	99.827
1A3bii	Diesel oil	0.549	90.853	1A2a	Solid	0.018	99.845
3B4gi		0.549	91.402	1A2b	Liquid	0.017	99.862
1A3bi	Diesel oil	0.528	91.929	1A3ai(i)	Liquid	0.016	99.878
1A4cii	Liquid	0.526	92.455	1A2gviii	Solid	0.016	99.894
5E		0.455	92.910	1A2e	Biomass	0.015	99.909
1A4bii	Liquid	0.454	93.364	3B2		0.015	99.923
1A4ci	Solid	0.433	93.797	1A2c	Biomass	0.008	99.932
2C2		0.403	94.200	1A2f	Other	0.008	99.940
1A4ci	Biomass	0.379	94.579	2A5a		0.007	99.948
1A3biii	Diesel oil	0.370	94.949	1A2e	Solid	0.007	99.954
3B4gii		0.355	95.304	5C1bv		0.005	99.959
3B1a		0.302	95.605	1A3aii(i)	Liquid	0.004	99.964
3B4giv		0.284	95.890	2D3g		0.004	99.968
3B1b		0.266	96.155	2D3d		0.004	99.972
1A4aii	Liquid	0.256	96.412	1A2b	Solid	0.004	99.975
1A2d	Liquid	0.224	96.636	2B6		0.003	99.978
2D3b		0.223	96.859	2A2		0.003	99.981
2D3i		0.207	97.066	1A2f	Biomass	0.003	99.984
2G		0.206	97.272	1A2gviii	Other	0.003	99.987
1A4ai	Biomass	0.195	97.466	1B2aiv		0.002	99.989
1A2c	Liquid	0.193	97.659	2C7a		0.002	99.991
1A5a	Liquid	0.188	97.848	5A		0.002	99.993
1A4bi	Solid	0.188	98.036	1A3bi	Gaseous	0.001	99.994
1A4ciii	Liquid	0.164	98.199	2C3		0.001	99.995
3B3		0.152	98.351	1A2a	Liquid	0.001	99.996
1A4bi	Liquid	0.144	98.496	1A1b	Solid	0.001	99.997
1A3bi	Gasoline	0.121	98.616	3B4d		0.001	99.998
1A3c	Liquid	0.097	98.714	2C6		0.001	99.998
1A1a	Liquid	0.089	98.803	1A2a	Biomass	0.000	99.999
1A1b	Liquid	0.083	98.885	1A3bii	Gasoline	0.000	99.999
1A2f	Liquid	0.080	98.965	1A3biii	Gaseous	0.000	100
2I		0.077	99.042	1B2av		0.000	100
1A4ci	Liquid	0.073	99.115	1A3bii	Gaseous	0.000	100
1A2d	Other	0.070	99.185	1A4bi	Other	0.000	100

## TSP

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A3bvii		25.339	25.339	Yes	1A3bi	Gasoline	0.077	99.104	
1A4bi	Biomass	18.642	43.980	Yes	1A2d	Other	0.073	99.177	
1A5a	Biomass	17.085	61.065	Yes	1A2f	Solid	0.068	99.245	
3Dc		9.165	70.230	Yes	2A5b		0.068	99.312	
1A3bvi		3.535	73.765	Yes	1A3c	Liquid	0.066	99.378	
1A2d	Biomass	2.957	76.722	Yes	3B4h		0.056	99.434	

1A1a	Solid	2.541	79.264	Yes	3B4e		0.049	99.483
3B4gi		1.661	80.924	Yes	1A2gviii	Liquid	0.044	99.527
2A5c		1.615	82.539		1A1a	Other	0.043	99.570
1A1a	Biomass	1.225	83.764		2L		0.041	99.612
1B1c		1.057	84.821		3B4giii		0.039	99.650
1A4ci	Solid	1.055	85.876		1A2d	Solid	0.032	99.682
2H2		1.025	86.901		1A2a	Solid	0.031	99.712
2B10a		1.021	87.922		2C7d		0.026	99.739
1A2gviii	Biomass	0.920	88.842		2C7c		0.023	99.762
2H1		0.770	89.612		1A3biv	Gasoline	0.023	99.785
1A3dii	Liquid	0.703	90.315		3B2		0.022	99.806
3B3		0.623	90.938		1A2e	Liquid	0.019	99.825
2C1		0.618	91.556		1A2e	Biomass	0.016	99.841
1A2gvii	Liquid	0.543	92.098		1A2gviii	Solid	0.014	99.855
1A4ai	Liquid	0.472	92.570		2A3		0.014	99.869
3B4gii		0.452	93.022		1A2f	Other	0.013	99.882
3B1a		0.421	93.443		1A2b	Liquid	0.013	99.896
3B1b		0.366	93.809		1A3biv	Diesel oil	0.012	99.907
1A3bii	Diesel oil	0.350	94.159		1A2e	Solid	0.011	99.918
1A3bi	Diesel oil	0.336	94.496		1A3ai(i)	Liquid	0.010	99.929
1A4cii	Liquid	0.335	94.831		2A5a		0.010	99.938
2C2		0.302	95.133		1A2b	Solid	0.009	99.947
5E		0.290	95.423		1A2f	Biomass	0.007	99.954
1A4bii	Liquid	0.289	95.712		1A2c	Biomass	0.007	99.962
2I		0.265	95.977		2A2		0.005	99.967
1A4ci	Biomass	0.264	96.241		5C1bv		0.004	99.970
1A3biii	Diesel oil	0.236	96.477		2D3g		0.004	99.974
1A2d	Liquid	0.222	96.699		2D3d		0.003	99.977
1A1b	Liquid	0.192	96.890		1A2gviii	Other	0.003	99.980
2D3b		0.190	97.080		1A3aii(i)	Liquid	0.003	99.982
3B4giv		0.188	97.268		2B6		0.002	99.985
1A5a	Liquid	0.179	97.447		5A		0.002	99.987
1A4aii	Liquid	0.163	97.610		1A1b	Solid	0.002	99.989
1A2c	Liquid	0.145	97.755		2C7a		0.002	99.991
2D3i		0.141	97.897		1B2aiv		0.002	99.993
1A4bi	Solid	0.133	98.030		2C6		0.001	99.994
2G		0.131	98.161		1A2a	Liquid	0.001	99.995
1A4ai	Biomass	0.129	98.291		1A2a	Biomass	0.001	99.997
1A4ciii	Liquid	0.104	98.395		3B4d		0.001	99.998
1A4bi	Liquid	0.103	98.498		2C3		0.001	99.999
1B1b		0.103	98.601		1A3bi	Gaseous	0.001	99.999
1A1a	Liquid	0.091	98.692		1A3bii	Gasoline	0.000	100
1A2f	Liquid	0.086	98.778		1A3biii	Gaseous	0.000	100
1A4ai	Solid	0.085	98.862		1B2av		0.000	100
2B10b		0.084	98.946		1A3bii	Gaseous	0.000	100
1A4ci	Liquid	0.081	99.027		1A4bi	Other	0.000	100

BC

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	67.344	67.344	Yes	1A2gviii	Liquid	0.049	99.724	
1A3bvi		5.026	72.370	Yes	1A4bi	Solid	0.047	99.772	
1A2gvii	Liquid	4.452	76.822	Yes	1A3biv	Gasoline	0.034	99.805	
1A5a	Biomass	3.220	80.042	Yes	1A2e	Liquid	0.025	99.830	
1A3bvii		2.832	82.874		1A4ci	Solid	0.023	99.854	
1A3bii	Diesel oil	2.591	85.465		2C1		0.023	99.876	
1A3bi	Diesel oil	2.582	88.046		5C1bv		0.022	99.898	
1A4cii	Liquid	1.946	89.992		1A3aii(i)	Liquid	0.019	99.917	
1A3biii	Diesel oil	1.685	91.677		1A2b	Liquid	0.018	99.935	
1A3dii	Liquid	1.651	93.328		1A1b	Liquid	0.018	99.953	
1A4ai	Liquid	0.812	94.140		1A2d	Other	0.010	99.964	
1A4bii	Liquid	0.744	94.883		1A2f	Other	0.009	99.972	
1A4aii	Liquid	0.567	95.451		2G		0.008	99.980	
1A3c	Liquid	0.517	95.968		1A2d	Solid	0.005	99.985	
1A4ciii	Liquid	0.435	96.403		1A2c	Biomass	0.005	99.990	
1A5a	Liquid	0.395	96.797		1A2e	Biomass	0.002	99.992	
5E		0.337	97.134		1A4ai	Solid	0.002	99.994	
1A4bi	Liquid	0.321	97.455		1A2gviii	Solid	0.001	99.995	
2C2		0.244	97.699		1A1a	Other	0.001	99.996	
1A2d	Biomass	0.222	97.921		1A2a	Liquid	0.001	99.997	
1A2d	Liquid	0.183	98.104		1A2f	Solid	0.001	99.997	
1A2c	Liquid	0.161	98.265		1A2gviii	Other	0.001	99.998	
2H1		0.146	98.411		1A2a	Solid	0.001	99.999	
1A2gviii	Biomass	0.136	98.547		2B6		0.000	99.999	
1A3bi	Gasoline	0.124	98.671		1A2e	Solid	0.000	99.999	
1B1b		0.119	98.790		1A3bii	Gasoline	0.000	99.999	
1A1a	Liquid	0.103	98.893		1A4bi	Other	0.000	100	
2D3b		0.100	98.994		1A2b	Solid	0.000	100	
1A4ci	Biomass	0.098	99.092		2C3		0.000	100	
1A3biv	Diesel oil	0.091	99.183		2A3		0.000	100	
1A1a	Solid	0.087	99.270		1A2f	Biomass	0.000	100	
2B10a		0.085	99.355		2D3i		0.000	100	
1A4ci	Liquid	0.072	99.427		1A1b	Solid	0.000	100	
1A3ai(i)	Liquid	0.070	99.497		2A2		0.000	100	
1A2f	Liquid	0.067	99.564		1A2a	Biomass	0.000	100	
1A1a	Biomass	0.059	99.624		2C7a		0.000	100	
1A4ai	Biomass	0.052	99.676						

## CO

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	45.142	45.142	Yes	1A2d	Solid	0.049	99.477	

1A4bii	Liquid	11.246	56.388	Yes	1A1a	Other	0.046	99.524
1A3dii	Liquid	6.756	63.144	Yes	2C1		0.043	99.567
1A5a	Biomass	5.785	68.929	Yes	1A2a	Gaseous	0.042	99.609
1A3bi	Gasoline	5.428	74.356	Yes	2G		0.039	99.648
1A4aii	Liquid	4.821	79.177	Yes	1A4bi	Liquid	0.039	99.687
1A1a	Biomass	4.408	83.586	Yes	1A3bi	Gaseous	0.033	99.720
1A2d	Biomass	3.995	87.581		1A2f	Liquid	0.029	99.749
1A4cii	Liquid	2.558	90.139		1A4ci	Liquid	0.028	99.778
1A2gvii	Liquid	2.185	92.324		1A2b	Liquid	0.027	99.804
1A3biv	Gasoline	0.907	93.231		1A2e	Solid	0.025	99.829
1A2gviii	Biomass	0.830	94.061		1A2gviii	Solid	0.022	99.851
1A2f	Solid	0.638	94.699		1A2gviii	Gaseous	0.021	99.872
1A3biii	Diesel oil	0.600	95.299		1A4ai	Gaseous	0.016	99.888
1A1a	Solid	0.575	95.875		1A2f	Gaseous	0.014	99.902
1A4ci	Biomass	0.465	96.340		1A3biv	Diesel oil	0.013	99.915
1A5a	Liquid	0.367	96.707		1A4bi	Gaseous	0.013	99.928
1A3bii	Diesel oil	0.302	97.009		1A2gviii	Liquid	0.011	99.939
1A4ai	Biomass	0.239	97.247		1A2gviii	Other	0.010	99.949
1A3bi	Diesel oil	0.218	97.465		1A4bi	Solid	0.009	99.958
1A2f	Other	0.214	97.679		1A4ai	Solid	0.006	99.964
1A1b	Liquid	0.183	97.862		1A2c	Gaseous	0.006	99.970
1A3ai(i)	Liquid	0.183	98.045		1A1b	Biomass	0.005	99.975
1A2a	Solid	0.171	98.217		1A3biii	Gaseous	0.004	99.979
1A2d	Other	0.116	98.332		1A2e	Liquid	0.004	99.983
1A2d	Gaseous	0.102	98.434		1A3bii	Gaseous	0.003	99.986
1A3bii	Gasoline	0.095	98.530		1A1b	Solid	0.003	99.989
1A4ciii	Liquid	0.085	98.614		2C7a		0.003	99.991
1A2c	Liquid	0.084	98.698		1A2a	Liquid	0.002	99.993
1A3aii(i)	Liquid	0.084	98.782		1A2c	Biomass	0.002	99.995
1A4ci	Solid	0.076	98.858		1A4ci	Gaseous	0.002	99.997
1A2d	Liquid	0.074	98.932		1A2e	Gaseous	0.002	99.998
1A2f	Biomass	0.071	99.003		1A2b	Solid	0.001	99.999
1A1a	Liquid	0.070	99.074		1A2b	Gaseous	0.000	100
1A5a	Gaseous	0.069	99.142		1A3ei	Gaseous	0.000	100
1A4ai	Liquid	0.068	99.210		1A1b		0.000	100
1A3c	Liquid	0.058	99.268		1A2c	Other	0.000	100
1A1a	Gaseous	0.055	99.323		1A2a	Biomass	0.000	100
1A1b	Gaseous	0.054	99.378		1A4bi	Other	0.000	100
1A2e	Biomass	0.051	99.428					

## Pb

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A1b	Liquid	24.936	24.936	Yes	2C6		0.118	99.417	
1A2d	Biomass	13.893	38.830	Yes	1B1b		0.100	99.517	
1A5a	Biomass	12.904	51.734	Yes	1A2gviii	Other	0.087	99.603	

2G		8.479	60.213	Yes	1A3dii	Liquid	0.074	99.677
1A1a	Solid	7.570	67.783	Yes	1A2e	Biomass	0.041	99.718
1A1a	Biomass	5.593	73.376	Yes	1A4ciii	Liquid	0.033	99.751
1A2f	Solid	4.889	78.265	Yes	1A1b	Solid	0.033	99.784
1A4bi	Biomass	3.901	82.166	Yes	1A2d	Solid	0.033	99.818
1A3bvi		3.683	85.849		1A2e	Liquid	0.032	99.85
2C1		3.396	89.245		1A2gviii	Liquid	0.027	99.877
2C7c		2.302	91.546		2C7a		0.027	99.904
1A4ci	Solid	1.520	93.066		1A2gviii	Solid	0.017	99.921
1A1a	Other	1.012	94.078		1A4ci	Liquid	0.015	99.936
1A2gviii	Biomass	0.757	94.836		1A3bi	Gasoline	0.015	99.951
1A2e	Solid	0.731	95.567		5C1bv		0.009	99.960
1A2d	Other	0.643	96.210		2B10a		0.008	99.968
1A4ci	Biomass	0.498	96.708		1A2b	Liquid	0.006	99.974
1A3aii(i)	Liquid	0.358	97.066		1A3biii	Diesel oil	0.006	99.980
1A5a	Liquid	0.303	97.369		2C3		0.004	99.984
1A4ai	Liquid	0.302	97.671		1A2a	Biomass	0.004	99.988
1A4ai	Biomass	0.258	97.929		5E		0.003	99.991
1A1a	Liquid	0.209	98.138		1A3bi	Diesel oil	0.002	99.994
2C2		0.209	98.347		1A2c	Biomass	0.002	99.996
1A2c	Liquid	0.198	98.545		1A4bi	Liquid	0.002	99.998
1A4bi	Solid	0.190	98.735		1A3bii	Diesel oil	0.001	99.999
1A2d	Liquid	0.153	98.888		1A2f	Other	0.001	99.999
1A2f	Biomass	0.150	99.037		1A3biv	Gasoline	0.000	100
1A4ai	Solid	0.137	99.174		1A3bii	Gasoline	0.000	100
1A2f	Liquid	0.124	99.298		1A3biv	Diesel oil	0.000	100

## Cd

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A5a	Biomass	23.032	23.032	Yes	2C2		0.065	99.542	
1A4bi	Biomass	18.797	41.829	Yes	1A4ai	Liquid	0.058	99.600	
1A2d	Biomass	14.785	56.615	Yes	1A4bi	Solid	0.050	99.650	
1A1a	Biomass	11.284	67.898	Yes	1A1a	Liquid	0.047	99.697	
1A1b	Liquid	9.137	77.035	Yes	1A4ciii	Liquid	0.041	99.738	
2C7c		4.880	81.915	Yes	1A2c	Liquid	0.038	99.777	
1A4ci	Biomass	2.364	84.279		1A4ai	Solid	0.036	99.813	
1A1a	Solid	2.258	86.538		1A3bi	Gasoline	0.029	99.842	
1A2f	Solid	1.832	88.370		5C1bv		0.025	99.868	
1A1a	Other	1.667	90.037		1A3c	Liquid	0.025	99.892	
2G		1.502	91.539		1B1b		0.023	99.916	
1A2gviii	Biomass	1.472	93.011		1A1b	Solid	0.012	99.928	
2C6		1.259	94.270		2C3		0.010	99.938	
1A4ai	Biomass	1.244	95.514		1A3biii	Diesel oil	0.009	99.947	
2C1		0.829	96.343		1A2a	Biomass	0.008	99.955	
1A2gvii	Liquid	0.474	96.817		1A2gviii	Liquid	0.007	99.962	

1A4ci	Solid	0.403	97.220	1A2e	Liquid	0.006	99.968
1A2d	Other	0.385	97.605	1A2d	Solid	0.006	99.974
1A4cii	Liquid	0.299	97.903	1A2f	Other	0.005	99.979
1A2f	Biomass	0.240	98.143	1A2gviii	Solid	0.005	99.984
1A2gviii	Other	0.222	98.365	1A3bi	Diesel oil	0.004	99.988
1A3bvi		0.220	98.585	1A2c	Biomass	0.003	99.991
1A2e	Solid	0.206	98.791	1A4ci	Liquid	0.003	99.994
1A4aii	Liquid	0.122	98.913	1A3bii	Diesel oil	0.002	99.996
5E		0.099	99.012	2C7a		0.001	99.997
1A3dii	Liquid	0.094	99.106	1A2b	Liquid	0.001	99.999
1A2d	Liquid	0.083	99.189	1A3biv	Gasoline	0.001	100
1A2e	Biomass	0.073	99.262	1A4bi	Liquid	0.000	100
1A4bii	Liquid	0.072	99.335	1A3bii	Gasoline	0.000	100
1A2f	Liquid	0.072	99.407	1A3biv	Diesel oil	0.000	100
1A5a	Liquid	0.069	99.476				

## Hg

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A1a	Solid	16.759	16.759	Yes	1A2gviii	Liquid	0.263	98.858	
2C1		16.739	33.498	Yes	1A4ciii	Liquid	0.191	99.048	
1A2d	Biomass	14.906	48.405	Yes	1A2gviii	Solid	0.171	99.219	
1A1a	Biomass	10.021	58.425	Yes	5E		0.152	99.372	
2B10a		6.908	65.334	Yes	1A2d	Other	0.137	99.509	
5C1bv		5.396	70.729	Yes	1A2d	Liquid	0.105	99.614	
1A4bi	Biomass	4.834	75.564	Yes	1A4bi	Solid	0.072	99.686	
1A5a	Biomass	3.554	79.118	Yes	1A3biv	Gasoline	0.061	99.747	
1A1b	Liquid	2.922	82.039	Yes	1A5a	Liquid	0.061	99.807	
1A2f	Solid	2.901	84.941		1A4ai	Solid	0.052	99.859	
1A3bi	Gasoline	1.960	86.901		1A2e	Biomass	0.046	99.905	
1A2gviii	Other	1.612	88.513		1A2f	Biomass	0.022	99.927	
1A3biii	Diesel oil	1.509	90.023		2G		0.015	99.943	
1A2f	Liquid	1.153	91.176		1A2a	Solid	0.014	99.956	
1A1a	Other	1.017	92.192		1A1a	Liquid	0.011	99.967	
2C7c		0.694	92.886		1A4ai	Liquid	0.009	99.976	
1A3bi	Diesel oil	0.627	93.513		1A3bii	Gasoline	0.006	99.982	
1A2gviii	Biomass	0.619	94.132		1A2c	Liquid	0.006	99.988	
1A4ci	Biomass	0.608	94.740		1A1b	Solid	0.004	99.992	
1A4ci	Solid	0.597	95.337		1B1b		0.002	99.994	
2C6		0.570	95.907		1A3biv	Diesel oil	0.001	99.995	
1A2d	Solid	0.542	96.450		1A2a	Biomass	0.001	99.997	
1A2f	Other	0.440	96.890		1A2e	Liquid	0.001	99.998	
1A3dii	Liquid	0.403	97.293		2C7a		0.001	99.998	
1A2e	Solid	0.369	97.662		1A2b	Liquid	0.001	99.999	
1A4ai	Biomass	0.320	97.982		1A2c	Biomass	0.001	99.999	
2C2		0.317	98.298		1A4ci	Liquid	0.000	100	

1A3bii	Diesel oil	0.296	98.594		1A4bi	Liquid	0.000	100	
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As

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A1b	Liquid	26.748	26.748	Yes	1B1b		0.077	99.462	
1A1a	Solid	25.647	52.395	Yes	1A2gviii	Solid	0.075	99.536	
2C7c		7.453	59.848	Yes	1A4ciii	Liquid	0.067	99.603	
2C7a		6.208	66.057	Yes	5E		0.064	99.667	
1A2f	Solid	5.143	71.200	Yes	1A2gviii	Other	0.054	99.721	
1A2d	Biomass	5.117	76.317	Yes	1A2d	Other	0.046	99.767	
1A4ci	Solid	4.745	81.062	Yes	1A1b	Solid	0.036	99.802	
2C1		3.012	84.074		2G		0.033	99.835	
1A4bi	Biomass	2.543	86.617		1A2f	Liquid	0.031	99.867	
2C6		2.211	88.827		5C1bv		0.028	99.894	
1A2e	Solid	2.155	90.983		1A2gviii	Liquid	0.019	99.913	
1A3bvi		2.135	93.118		2C3		0.019	99.932	
1A5a	Biomass	1.869	94.987		1A3bi	Gasoline	0.018	99.950	
1A1a	Biomass	1.551	96.539		1A2e	Liquid	0.014	99.964	
1A4bi	Solid	0.591	97.129		1A4ci	Liquid	0.008	99.972	
1A4ai	Solid	0.426	97.555		1A2e	Biomass	0.008	99.980	
1A4ci	Biomass	0.319	97.874		1A3biii	Diesel oil	0.007	99.987	
1A1a	Other	0.183	98.057		1A2b	Liquid	0.003	99.991	
1A5a	Liquid	0.172	98.228		1A3bi	Diesel oil	0.003	99.994	
1A4ai	Biomass	0.168	98.397		1A2f	Biomass	0.002	99.996	
1A4ai	Liquid	0.157	98.554		1A3bii	Diesel oil	0.001	99.997	
1A3dii	Liquid	0.147	98.701		1A4bi	Liquid	0.001	99.998	
1A2d	Liquid	0.131	98.831		1A2a	Biomass	0.001	99.999	
1A2d	Solid	0.120	98.951		1A3biv	Gasoline	0.001	99.999	
1A2gviii	Biomass	0.118	99.069		1A2f	Other	0.000	100	
2C2		0.109	99.179		1A2c	Biomass	0.000	100	
1A2c	Liquid	0.104	99.282		1A3bii	Gasoline	0.000	100	
1A1a	Liquid	0.103	99.385		1A3biv	Diesel oil	0.000	100	

Cr

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A1b	Liquid	26.502	26.502	Yes	1A1b	Solid	0.035	99.728	
2C1		13.879	40.381	Yes	1A3bi	Diesel oil	0.034	99.762	
1A4bi	Biomass	11.464	51.844	Yes	1A4aii	Liquid	0.032	99.794	
1A3bvi		8.611	60.456	Yes	1A2gviii	Solid	0.028	99.822	
1A5a	Biomass	8.427	68.883	Yes	1A2e	Biomass	0.023	99.845	
2C2		8.071	76.954	Yes	1A4bii	Liquid	0.019	99.864	
1A1a	Solid	5.578	82.532	Yes	1A2f	Biomass	0.016	99.880	

1A2f	Solid	5.129	87.660	1A3bii	Diesel oil	0.016	99.896
1A1a	Biomass	3.254	90.914	1A2d	Solid	0.015	99.911
1A2gviii	Biomass	1.498	92.412	1A5a	Liquid	0.013	99.924
1A4ci	Biomass	1.437	93.848	1A4ciii	Liquid	0.011	99.935
1A4ci	Solid	1.052	94.900	1A4ai	Liquid	0.010	99.945
1A2d	Biomass	0.864	95.765	1A1a	Liquid	0.008	99.953
1A2b	Solid	0.821	96.586	5E		0.008	99.960
1A4ai	Biomass	0.758	97.344	1A2f	Liquid	0.008	99.968
1A1a	Other	0.577	97.922	1A2c	Liquid	0.007	99.975
1A2e	Solid	0.540	98.462	1A3c	Liquid	0.006	99.981
1A2gviii	Other	0.385	98.847	5C1bv		0.004	99.985
1A4bi	Solid	0.131	98.978	2C7a		0.003	99.988
1A2gvii	Liquid	0.124	99.102	1A2a	Biomass	0.003	99.990
1A4ai	Solid	0.095	99.197	1A2b	Liquid	0.002	99.992
1A3biii	Diesel oil	0.082	99.279	1A2f	Other	0.002	99.994
1A4cii	Liquid	0.078	99.357	1A3biv	Gasoline	0.001	99.996
1B1b		0.063	99.420	1A2gviii	Liquid	0.001	99.997
2G		0.049	99.469	1A2c	Biomass	0.001	99.998
1A2d	Other	0.049	99.518	1A2e	Liquid	0.001	99.999
1A3bi	Gasoline	0.048	99.566	1A4ci	Liquid	0.001	100
1A2d	Liquid	0.043	99.608	1A3bii	Gasoline	0.000	100
2C7c		0.042	99.651	1A3biv	Diesel oil	0.000	100
1A3dii	Liquid	0.042	99.693	1A4bi	Liquid	0.000	100

## Cu

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A3bvi		75.294	75.294	Yes	1A3biii	Diesel oil	0.021	99.821	
1A5a	Biomass	4.768	80.061	Yes	2B10a		0.021	99.842	
1A1b	Liquid	3.603	83.665		1A5a	Liquid	0.019	99.862	
1A1a	Solid	3.234	86.898		1A4ciii	Liquid	0.017	99.878	
1A1a	Biomass	2.394	89.293		1A2e	Biomass	0.015	99.893	
1A2gvii	Liquid	1.634	90.927		1A3bi	Gasoline	0.013	99.907	
1A4cii	Liquid	1.030	91.957		1A2d	Solid	0.012	99.918	
2C1		0.950	92.907		1A4ai	Liquid	0.010	99.928	
2C7c		0.908	93.815		1A3bi	Diesel oil	0.009	99.937	
1A4bi	Biomass	0.763	94.578		1A1a	Liquid	0.008	99.945	
1A2f	Solid	0.699	95.276		1A2gviii	Solid	0.007	99.952	
1A4ci	Solid	0.641	95.917		5E		0.007	99.959	
2G		0.575	96.492		1A2c	Liquid	0.006	99.966	
1A2d	Biomass	0.458	96.949		1A2f	Biomass	0.006	99.972	
1A1a	Other	0.429	97.378		1A2f	Liquid	0.005	99.977	
1A4aii	Liquid	0.421	97.799		1A1b	Solid	0.005	99.982	
1A2d	Other	0.368	98.167		2C7a		0.005	99.987	
1A2gviii	Biomass	0.289	98.456		1A3bii	Diesel oil	0.004	99.991	
1A2e	Solid	0.284	98.740		1A2f	Other	0.002	99.993	

1A4bii	Liquid	0.250	98.990	1A2a	Biomass	0.002	99.994
1A2d	Liquid	0.211	99.201	5C1bv		0.001	99.996
1A4ci	Biomass	0.099	99.300	1A2e	Liquid	0.001	99.997
1A3c	Liquid	0.086	99.386	1A2gviii	Liquid	0.001	99.998
1A4bi	Solid	0.080	99.466	1A2c	Biomass	0.001	99.998
2C2		0.065	99.531	1A2b	Liquid	0.001	99.999
1A2gviii	Other	0.064	99.596	1A4ci	Liquid	0.000	99.999
1A4ai	Solid	0.058	99.653	1A3biv	Gasoline	0.000	100
1A4ai	Biomass	0.050	99.704	1A4bi	Liquid	0.000	100
1A3dii	Liquid	0.036	99.740	1A3bii	Gasoline	0.000	100
2C6		0.034	99.774	1A3biv	Diesel oil	0.000	100
1B1b		0.026	99.800				

## Ni

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	14.769	14.769	Yes	1A4ci	Liquid	0.230	98.547	
2C7b		10.971	25.740	Yes	1A4bi	Solid	0.198	98.745	
1A5a	Biomass	10.857	36.597	Yes	1A4cii	Liquid	0.164	98.909	
1A1a	Solid	8.991	45.587	Yes	1A4ai	Solid	0.143	99.052	
2C1		6.419	52.007	Yes	2B10a		0.131	99.183	
1A2f	Solid	6.128	58.134	Yes	1B1b		0.120	99.302	
1A1a	Biomass	5.095	63.230	Yes	1A2gviii	Other	0.113	99.415	
1A4ai	Liquid	4.571	67.801	Yes	1A2d	Other	0.099	99.514	
1A5a	Liquid	4.542	72.343	Yes	1A2e	Biomass	0.087	99.601	
1A1a	Liquid	3.165	75.508	Yes	1A1b	Liquid	0.070	99.671	
1A2c	Liquid	3.006	78.513	Yes	1A4aii	Liquid	0.067	99.738	
2C7c		2.203	80.716	Yes	1A2b	Solid	0.055	99.793	
1A3dii	Liquid	1.998	82.714		1A1b	Solid	0.043	99.836	
1A2d	Liquid	1.977	84.691		1A4bii	Liquid	0.040	99.876	
1A3bvi		1.858	86.550		1A4bi	Liquid	0.027	99.903	
1A4ci	Biomass	1.851	88.400		1A3bi	Gasoline	0.026	99.929	
1A4ci	Solid	1.580	89.980		1A2gviii	Solid	0.018	99.947	
1A2d	Biomass	1.483	91.464		1A2f	Biomass	0.018	99.965	
1A1a	Other	1.128	92.591		1A3c	Liquid	0.014	99.979	
1A4ai	Biomass	0.977	93.568		5C1bv		0.007	99.985	
1A2e	Solid	0.782	94.350		1A2a	Biomass	0.004	99.989	
1A2gviii	Biomass	0.631	94.981		1A3biii	Diesel oil	0.003	99.992	
1A2e	Liquid	0.487	95.468		2C7a		0.003	99.994	
1A2f	Liquid	0.471	95.939		1A2c	Biomass	0.002	99.996	
2G		0.465	96.404		1A2f	Other	0.001	99.997	
1A2gviii	Liquid	0.404	96.809		1A3bi	Diesel oil	0.001	99.999	
2C2		0.370	97.179		1A3biv	Gasoline	0.001	99.999	
1A4ciii	Liquid	0.324	97.502		1A3bii	Diesel oil	0.001	100	
1A2b	Liquid	0.294	97.797		1A3bii	Gasoline	0.00	100	
1A2gvii	Liquid	0.260	98.057		1A3biv	Diesel oil	0.00	100	

1A2d	Solid	0.260	98.317	
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## Se

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	58.322	58.322	Yes	1A4bii	Liquid	0.135	99.742	
2C7a		20.572	78.894	Yes	1A4ciii	Liquid	0.077	99.818	
1A4ci	Biomass	7.271	86.164	Yes	1A3bi	Gasoline	0.054	99.873	
1A3bvi		7.097	93.262		1A3c	Liquid	0.046	99.919	
1A4ai	Biomass	3.859	97.120		1A3biii	Diesel oil	0.034	99.953	
1A2gvii	Liquid	0.882	98.002		1A5a	Liquid	0.024	99.977	
1A4cii	Liquid	0.556	98.558		1A3bi	Diesel oil	0.014	99.991	
2C7c		0.441	98.999		1A3bii	Diesel oil	0.007	99.998	
1A4aii	Liquid	0.227	99.226		1A3biv	Gasoline	0.002	100	
1A3dii	Liquid	0.195	99.421		1A3bii	Gasoline	0.000	100	
5C1bv		0.185	99.607		1A3biv	Diesel oil	0.000	100	

## Zn

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	25.981	25.981	Yes	1A4bi	Solid	0.035	99.706	
1A5a	Biomass	19.100	45.082	Yes	1B1b		0.031	99.737	
1A3bvi		13.991	59.073	Yes	1A4ciii	Liquid	0.029	99.766	
1A1a	Biomass	9.925	68.998	Yes	1A2f	Biomass	0.029	99.795	
2C6		5.920	74.919	Yes	1A3bi	Gasoline	0.029	99.823	
1A1b	Liquid	4.507	79.426	Yes	1A4ai	Solid	0.025	99.848	
1A4ci	Biomass	3.256	82.682	Yes	1A5a	Liquid	0.022	99.871	
1A1a	Other	2.497	85.178		1A3biii	Diesel oil	0.020	99.890	
2C1		1.917	87.095		1A3c	Liquid	0.015	99.905	
1A2f	Solid	1.809	88.905		1A4ai	Liquid	0.014	99.919	
1A1a	Solid	1.774	90.679		1A1a	Liquid	0.011	99.930	
1A4ai	Biomass	1.719	92.398		1A2d	Solid	0.009	99.940	
1A2gviii	Biomass	1.451	93.849		1A2c	Liquid	0.009	99.949	
2C2		1.014	94.863		1A2gviii	Solid	0.008	99.957	
1A2f	Liquid	0.669	95.532		1A3bi	Diesel oil	0.008	99.965	
1A2f	Other	0.655	96.188		1A2a	Biomass	0.006	99.971	
1A2gviii	Other	0.581	96.769		1A1b	Solid	0.006	99.977	
1A2d	Biomass	0.581	97.350		5C1bv		0.005	99.982	
2C7c		0.418	97.768		1A3bii	Diesel oil	0.004	99.986	
1A4ci	Solid	0.285	98.053		2C3		0.003	99.989	
1A2gvii	Liquid	0.281	98.334		1A2c	Biomass	0.003	99.992	
2G		0.272	98.606		2C7a		0.003	99.994	
2B10a		0.190	98.796		1A2gviii	Liquid	0.002	99.996	
1A4cii	Liquid	0.177	98.972		1A2e	Liquid	0.001	99.998	

1A2d	Other	0.166	99.138	1A3biv	Gasoline	0.001	99.999
1A2d	Liquid	0.152	99.290	1A4ci	Liquid	0.001	100
1A2e	Solid	0.147	99.437	1A2b	Liquid	0.000	100
1A4aii	Liquid	0.072	99.509	1A3bii	Gasoline	0.000	100
1A3dii	Liquid	0.063	99.572	1A4bi	Liquid	0.000	100
1A2e	Biomass	0.055	99.628	1A3biv	Diesel oil	0.000	100
1A4bii	Liquid	0.043	99.671				

## PCDD/F

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A1a	Biomass	16.336	16.336	Yes	1A1a	Liquid	0.054	99.486	
5E		13.383	29.719	Yes	1A4ai	Liquid	0.053	99.539	
1A4bi	Biomass	10.795	40.514	Yes	1A1b	Gaseous	0.044	99.584	
1A1a	Other	9.355	49.869	Yes	1A4ciii	Liquid	0.044	99.628	
2B10a		8.318	58.187	Yes	1A1a	Gaseous	0.039	99.667	
1A5a	Biomass	7.936	66.123	Yes	1A4bi	Liquid	0.032	99.699	
1A1a	Solid	5.606	71.728	Yes	1A2a	Gaseous	0.032	99.731	
2C1		5.356	77.085	Yes	1A2f	Biomass	0.030	99.760	
1A2d	Biomass	4.376	81.461	Yes	1A2a	Solid	0.027	99.788	
1A3bi	Diesel oil	2.369	83.830		1A4bi	Solid	0.026	99.813	
2C7a		2.117	85.947		1A3biv	Diesel oil	0.025	99.838	
1A3bi	Gasoline	1.934	87.880		1A5a	Gaseous	0.022	99.860	
1A2d	Other	1.515	89.396		1A4ci	Liquid	0.022	99.882	
1A3bii	Diesel oil	1.399	90.795		1A4ai	Solid	0.019	99.901	
1A4ci	Biomass	1.357	92.152		1A2f	Liquid	0.014	99.914	
1A2gviii	Biomass	1.320	93.472		1A2c	Gaseous	0.012	99.926	
1A4ai	Biomass	0.714	94.186		5C1bv		0.011	99.937	
2C6		0.675	94.861		1A3bii	Gasoline	0.007	99.945	
1A2d	Solid	0.542	95.404		1A2gviii	Liquid	0.006	99.951	
1A3biii	Diesel oil	0.537	95.941		1A2f	Gaseous	0.006	99.957	
2C3		0.477	96.418		1A4ai	Gaseous	0.005	99.962	
1A1b	Liquid	0.368	96.786		1A2b	Solid	0.005	99.967	
1A2d	Gaseous	0.320	97.106		1A1b	Biomass	0.004	99.971	
2A2		0.269	97.375		2A3		0.004	99.976	
1A2d	Liquid	0.240	97.615		1A4bi	Gaseous	0.004	99.980	
1B1b		0.240	97.855		1A2e	Liquid	0.004	99.983	
1A4ci	Solid	0.209	98.064		1A2b	Liquid	0.004	99.987	
2L		0.155	98.219		1A2gviii	Gaseous	0.003	99.990	
1A2e	Solid	0.142	98.361		1A2a	Biomass	0.003	99.993	
1A3biv	Gasoline	0.129	98.490		2G		0.002	99.995	
1A2gviii	Other	0.127	98.616		1A2c	Biomass	0.002	99.997	
1A3dii	Liquid	0.110	98.726		1A2e	Gaseous	0.001	99.998	
1A2gviii	Solid	0.106	98.832		1A4ci	Gaseous	0.001	99.999	
2A1		0.105	98.937		1A2a	Liquid	0.001	99.999	
2D3b		0.105	99.042		1A2b	Gaseous	0.000	100	

1A2e	Biomass	0.102	99.144	1A1b	Solid	0.000	100
1A2f	Other	0.092	99.236	1A3ei	Gaseous	0.000	100
1A5a	Liquid	0.082	99.318	1A2c	Other	0.000	100
1A2c	Liquid	0.060	99.377	1A4bi	Other	0.000	100
1A2f	Solid	0.055	99.432				

#### PAH-4

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	92.368	92.368	Yes	1A2gviii	Liquid	0.016	99.899	
1A1a	Biomass	1.313	93.681		1A3dii	Liquid	0.011	99.910	
1A2d	Biomass	1.281	94.962		1A2b	Liquid	0.010	99.920	
1A1a	Other	0.962	95.924		1A4ai	Biomass	0.009	99.928	
1A2gviii	Other	0.637	96.561		1A3c	Liquid	0.008	99.937	
1A3biii	Diesel oil	0.607	97.168		1A2e	Liquid	0.008	99.945	
1A5a	Biomass	0.523	97.691		5C1bv		0.007	99.952	
1A3bi	Diesel oil	0.247	97.938		1A2e	Biomass	0.007	99.959	
1A2gviii	Biomass	0.210	98.148		1A3biv	Gasoline	0.007	99.965	
1A2d	Liquid	0.171	98.319		1A4ci	Solid	0.006	99.972	
1A3bi	Gasoline	0.161	98.480		1A2gviii	Solid	0.006	99.977	
1A2gvii	Liquid	0.159	98.639		1A4ciii	Liquid	0.004	99.981	
1A1a	Solid	0.157	98.796		1A2e	Solid	0.004	99.985	
1A4ai	Liquid	0.157	98.953		1A2c	Biomass	0.004	99.989	
1A1a	Liquid	0.134	99.087		2G		0.003	99.991	
1A5a	Liquid	0.109	99.196		1A2f	Biomass	0.002	99.993	
1A4cii	Liquid	0.100	99.296		1B1b		0.002	99.995	
1A4bi	Liquid	0.092	99.388		2A1		0.001	99.996	
1A3bii	Diesel oil	0.087	99.474		1A2a	Liquid	0.001	99.997	
1A4ci	Liquid	0.060	99.534		1A4bi	Solid	0.001	99.998	
2D3i		0.051	99.586		2C2		0.001	99.998	
1A2d	Other	0.050	99.636		1A4ai	Solid	0.001	99.999	
1A1b	Liquid	0.045	99.681		1A3biv	Diesel oil	0.001	99.999	
2C1		0.042	99.723		1A3bii	Gasoline	0.000	100	
1A4aai	Liquid	0.041	99.764		1A2a	Biomass	0.000	100	
1A2f	Liquid	0.025	99.789		1A2f	Solid	0.000	100	
1A4bii	Liquid	0.024	99.814		1A4bi	Other	0.000	100	
1A2f	Other	0.020	99.834		1A2b	Solid	0.000	100	
1A4ci	Biomass	0.017	99.851		1A2a	Solid	0.000	100	
1A2c	Liquid	0.017	99.868		1A1b	Solid	0.000	100	
1A2d	Solid	0.016	99.884						

#### HCB

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
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2B10a		74.886	74.886	Yes	1A1a	Other	0.007	99.959
2C7a		20.388	95.274	Yes	1A3biv	Gasoline	0.007	99.966
1A1a	Biomass	1.546	96.820		2D3i		0.006	99.972
1A4bi	Biomass	0.835	97.654		1A4ci	Solid	0.005	99.977
1A2d	Biomass	0.410	98.065		1A2f	Solid	0.004	99.982
1A2gviii		0.398	98.462		1A2gviii	Other	0.004	99.986
1A3biii	Diesel oil	0.295	98.757		1A3bi	Gaseous	0.003	99.988
1A3bi	Gasoline	0.233	98.991		1A5a	Liquid	0.002	99.991
1A2gviii	Biomass	0.153	99.144		1A2f	Biomass	0.002	99.993
2C3		0.124	99.268		1A3biii	Gaseous	0.002	99.995
1A5a	Biomass	0.123	99.391		1A2a	Solid	0.001	99.996
1A3bi	Diesel oil	0.122	99.513		1A1a	Solid	0.001	99.997
3Df		0.119	99.632		1A3bii	Gasoline	0.001	99.998
1A4ci	Biomass	0.104	99.736		1A2d	Other	0.001	99.998
1A3bii	Diesel oil	0.058	99.794		1A2e	Solid	0.000	99.999
1A4ai	Biomass	0.055	99.849		1A2d	Solid	0.000	99.999
2C1		0.046	99.895		1A3bii	Gaseous	0.000	99.999
5C1bv		0.020	99.916		1A2b	Solid	0.000	99.999
1A3dii	Liquid	0.020	99.935		1A3biv	Diesel oil	0.000	100
1A4ciii	Liquid	0.009	99.944		1A2a	Biomass	0.000	100
1A2e	Biomass	0.008	99.952		1A2c	Biomass	0.000	100

## PCB

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
2C1		47.485	47.485	Yes	1A4bi	Liquid	0.003	99.996	
2A1		15.365	62.850	Yes	2C7a		0.001	99.997	
1A4bi	Biomass	14.704	77.554	Yes	1A1a	Solid	0.001	99.998	
1B1b		14.602	92.156	Yes	1A4ci	Solid	0.000	99.998	
1A4ci	Biomass	1.833	93.989		1A4ci	Liquid	0.000	99.999	
1A2f	Solid	1.756	95.744		2A2		0.000	99.999	
1A1a	Biomass	1.588	97.333		1A3bi	Diesel oil	0.000	99.999	
1A4ai	Biomass	0.973	98.306		1A3bi	Gasoline	0.000	99.999	
2C3		0.482	98.787		1A3bii	Diesel oil	0.000	100	
1A2a	Solid	0.467	99.254		1A2e	Biomass	0.000	100	
1A2e	Solid	0.168	99.422		1A2gviii	Other	0.000	100	
1A2gviii		0.135	99.557		1A4bi	Solid	0.000	100	
1A2d	Solid	0.123	99.680		1A3biii	Diesel oil	0.000	100	
1A2b	Solid	0.104	99.785		1A2f	Biomass	0.000	100	
5C1bv		0.081	99.865		1A4ai	Solid	0.000	100	
2C7c		0.075	99.941		1A3biv	Gasoline	0.000	100	
1A3dii	Liquid	0.024	99.965		1A2d	Other	0.000	100	
1A1a	Other	0.008	99.973		1A2a	Biomass	0.000	100	
1A2d	Biomass	0.007	99.980		1A3biv	Diesel oil	0.000	100	
1A4ciii	Liquid	0.006	99.986		1A3bii	Gasoline	0.000	100	
1A4ai	Liquid	0.004	99.991		1A2c	Biomass	0.000	100	

1A2gviii	Biomass	0.003	99.993	
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## Trend analysis

The key category assessment by trend for the 2024 submission is presented below.

### NOx

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3bi	Gasoline	62.636	306.768	1.648	99.292	Gg	0.061	19.168	19.168	Yes
1A3biii	Diesel oil	58.866	306.768	6.898	99.292	Gg	0.040	12.509	31.677	Yes
1A1a	Solid	45.995	306.768	6.412	99.292	Gg	0.028	8.722	40.399	Yes
1A2d	Biomass	8.656	306.768	10.665	99.292	Gg	0.026	8.093	48.492	Yes
1A1a	Biomass	1.017	306.768	8.059	99.292	Gg	0.025	7.955	56.447	Yes
1A3bi	Diesel oil	6.783	306.768	7.130	99.292	Gg	0.016	5.079	61.526	Yes
1A5a	Biomass	0.032	306.768	3.589	99.292	Gg	0.012	3.683	65.208	Yes
3Da1		9.143	306.768	5.835	99.292	Gg	0.009	2.959	68.168	Yes
1A4bi	Biomass	3.303	306.768	3.906	99.292	Gg	0.009	2.919	71.087	Yes
1A1a	Gaseous	8.859	306.768	0.371	99.292	Gg	0.008	2.569	73.656	Yes
1A4cii	Liquid	12.825	306.768	1.877	99.292	Gg	0.007	2.341	75.997	Yes
1A3bii	Diesel oil	4.439	306.768	3.455	99.292	Gg	0.007	2.077	78.074	Yes
1A3dii	Liquid	9.130	306.768	4.877	99.292	Gg	0.006	1.978	80.052	Yes
3Da2a		3.155	306.768	2.542	99.292	Gg	0.005	1.565	81.616	
1A1a	Other	0.006	306.768	1.318	99.292	Gg	0.004	1.354	82.970	
1A2a	Solid	2.398	306.768	2.037	99.292	Gg	0.004	1.298	84.268	
1A5a	Liquid	2.178	306.768	1.772	99.292	Gg	0.003	1.098	85.366	
1A2d	Solid	3.931	306.768	0.343	99.292	Gg	0.003	0.957	86.323	
1A2gviii	Biomass	0.862	306.768	1.185	99.292	Gg	0.003	0.932	87.254	
1A2a	Gaseous	0.203	306.768	0.887	99.292	Gg	0.003	0.845	88.099	
1A4bii	Liquid	0.396	306.768	0.912	99.292	Gg	0.003	0.807	88.906	
1A2c	Liquid	1.137	306.768	1.084	99.292	Gg	0.002	0.737	89.643	
1A4aii	Liquid	5.216	306.768	1.004	99.292	Gg	0.002	0.705	90.348	
1A1b	Liquid	2.045	306.768	1.284	99.292	Gg	0.002	0.640	90.988	
1A4ciii	Liquid	3.580	306.768	1.684	99.292	Gg	0.002	0.540	91.528	
1A4bi	Liquid	3.114	306.768	0.486	99.292	Gg	0.002	0.537	92.065	
1A2gviii	Other	0.148	306.768	0.553	99.292	Gg	0.002	0.520	92.586	
1A3ai(i)	Liquid	0.251	306.768	0.557	99.292	Gg	0.002	0.490	93.075	
1A3bii	Gasoline	1.532	306.768	0.051	99.292	Gg	0.001	0.458	93.534	
1A2gvii	Liquid	12.65	306.768	4.521	99.292	Gg	0.001	0.439	93.972	
1A2d	Gaseous	3.395	306.768	0.675	99.292	Gg	0.001	0.436	94.408	
1A2d	Other	0.044	306.768	0.383	99.292	Gg	0.001	0.380	94.788	

1A2f	Liquid	0.665	306.768	0.562	99.292	Gg	0.001	0.357	95.145
1A4ci	Biomass	0.520	306.768	0.499	99.292	Gg	0.001	0.340	95.485
3Da3		0.795	306.768	0.579	99.292	Gg	0.001	0.332	95.817
1A2f	Other	0.580	306.768	0.485	99.292	Gg	0.001	0.306	96.123
1A2f	Solid	3.724	306.768	0.933	99.292	Gg	0.001	0.280	96.403
3Da2c		0.103	306.768	0.285	99.292	Gg	0.001	0.259	96.662
1A1a	Liquid	3.798	306.768	1.011	99.292	Gg	0.001	0.224	96.886
1A4ai	Biomass	0.156	306.768	0.258	99.292	Gg	0.001	0.214	97.100
1A5a	Gaseous	0.116	306.768	0.213	99.292	Gg	0.001	0.180	97.28
1A2d	Liquid	2.136	306.768	0.864	99.292	Gg	0.001	0.178	97.458
1A2gviii	Liquid	1.266	306.768	0.245	99.292	Gg	0.001	0.170	97.628
1A2e	Liquid	0.662	306.768	0.053	99.292	Gg	0.001	0.166	97.794
1A1b	Gaseous	1.269	306.768	0.263	99.292	Gg	0.000	0.152	97.946
2B10a		0.061	306.768	0.150	99.292	Gg	0.000	0.134	98.079
1A4ai	Liquid	2.314	306.768	0.876	99.292	Gg	0.000	0.131	98.210
1A2b	Solid	0.437	306.768	0.020	99.292	Gg	0.000	0.125	98.335
1A2gviii	Solid	0.056	306.768	0.127	99.292	Gg	0.000	0.112	98.447
2B2		0.744	306.768	0.350	99.292	Gg	0.000	0.112	98.559
1A2a	Liquid	0.466	306.768	0.042	99.292	Gg	0.000	0.112	98.671
1A3biv	Gasoline	0.065	306.768	0.128	99.292	Gg	0.000	0.110	98.782
1A4ci	Solid	0.064	306.768	0.126	99.292	Gg	0.000	0.108	98.889
3B1b		0.158	306.768	0.144	99.292	Gg	0.000	0.095	98.985
3Da2b		0.063	306.768	0.109	99.292	Gg	0.000	0.091	99.075
3B4gii		0.027	306.768	0.095	99.292	Gg	0.000	0.089	99.164
1A4ci	Liquid	0.744	306.768	0.325	99.292	Gg	0.000	0.087	99.251
1A2gviii	Gaseous	0.075	306.768	0.099	99.292	Gg	0.000	0.076	99.327
1A2b	Liquid	0.240	306.768	0.139	99.292	Gg	0.000	0.063	99.390
1A2e	Biomass	0.033	306.768	0.063	99.292	Gg	0.000	0.054	99.444
1A2c	Other	0.152	306.768	0.005	99.292	Gg	0.000	0.046	99.490
1A4ai	Gaseous	0.043	306.768	0.052	99.292	Gg	0.000	0.039	99.529
1A3c	Liquid	4.212	306.768	1.327	99.292	Gg	0.000	0.037	99.566
1A1b	Biomass		306.768	0.034	99.292	Gg	0.000	0.035	99.602
1A3biv	Diesel oil		306.768	0.030	99.292	Gg	0.000	0.031	99.633
1A4bi	Gaseous	0.030	306.768	0.039	99.292	Gg	0.000	0.030	99.663
1A3biii	Gaseous		306.768	0.029	99.292	Gg	0.000	0.029	99.692
1A2f	Gaseous	0.261	306.768	0.110	99.292	Gg	0.000	0.027	99.719
3B4e		0.016	306.768	0.030	99.292	Gg	0.000	0.026	99.745
3B4gi		0.052	306.768	0.042	99.292	Gg	0.000	0.026	99.770
1A3aii(i)	Liquid	0.311	306.768	0.124	99.292	Gg	0.000	0.024	99.795
1A2f	Biomass	0.000	306.768	0.022	99.292	Gg	0.000	0.023	99.818
1A4bi	Solid	0.102	306.768	0.014	99.292	Gg	0.000	0.020	99.837
1A2c	Gaseous	0.181	306.768	0.076	99.292	Gg	0.000	0.018	99.856
1A2e	Solid	0.412	306.768	0.151	99.292	Gg	0.000	0.018	99.874
3B3		0.068	306.768	0.005	99.292	Gg	0.000	0.018	99.891
1A2e	Gaseous	0.088	306.768	0.013	99.292	Gg	0.000	0.015	99.907
1A4ci	Gaseous	0.056	306.768	0.005	99.292	Gg	0.000	0.013	99.92
3B1a		0.170	306.768	0.043	99.292	Gg	0.000	0.012	99.932
1A2c	Biomass	0.089	306.768	0.018	99.292	Gg	0.000	0.011	99.944

3B4h		0.042	306.768	0.023	99.292	Gg	0.000	0.009	99.953
3B4giii		0.001	306.768	0.009	99.292	Gg	0.000	0.009	99.962
1A4ai	Solid	0.015	306.768	0.013	99.292	Gg	0.000	0.008	99.970
1A3bi	Gaseous		306.768	0.007	99.292	Gg	0.000	0.008	99.977
3B2		0.006	306.768	0.008	99.292	Gg	0.000	0.006	99.983
1A2b	Gaseous		306.768	0.004	99.292	Gg	0.000	0.004	99.987
1A1b			306.768	0.003	99.292	Gg	0.000	0.003	99.990
1A2a	Biomass		306.768	0.003	99.292	Gg	0.000	0.003	99.993
3B4giv		0.007	306.768	0.004	99.292	Gg	0.000	0.002	99.995
1A3ei	Gaseous	0.009	306.768	0.001	99.292	Gg	0.000	0.002	99.997
1A4bi	Other	0.003	306.768	0.000	99.292	Gg	0.000	0.001	99.998
1A3bii	Gaseous		306.768	0.001	99.292	Gg	0.000	0.001	99.999
2G		0.010	306.768	0.004	99.292	Gg	0.000	0.001	99.999
1A1b	Solid	0.005	306.768	0.001	99.292	Gg	0.000	0.000	100
3B4d		0.000	306.768	0.000	99.292	Gg	0.000	0.000	100

## NMVOC

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3bi	Gasoline	49.364	233.663	0.882	75.464	Gg	0.064	22.668	22.668	Yes
1A4bi	Biomass	17.720	233.663	18.119	75.464	Gg	0.053	18.658	41.327	Yes
2D3a		3.065	233.663	6.692	75.464	Gg	0.024	8.583	49.910	Yes
3B1a		7.008	233.663	5.702	75.464	Gg	0.015	5.175	55.085	Yes
1A3bv		13.655	233.663	1.205	75.464	Gg	0.014	4.824	59.909	Yes
2D3d		27.500	233.663	5.871	75.464	Gg	0.013	4.532	64.441	Yes
3B1b		4.042	233.663	3.824	75.464	Gg	0.011	3.791	68.232	Yes
2D3h		8.800	233.663	0.367	75.464	Gg	0.011	3.725	71.956	Yes
1A3biii	Diesel oil	7.843	233.663	0.200	75.464	Gg	0.010	3.512	75.468	Yes
2D3c		6.260	233.663	0.027	75.464	Gg	0.009	3.002	78.470	Yes
1A4aai	Liquid	6.267	233.663	0.410	75.464	Gg	0.007	2.429	80.899	Yes
1A1a	Biomass	0.109	233.663	1.386	75.464	Gg	0.006	2.033	82.932	
2H2		2.523	233.663	1.885	75.464	Gg	0.005	1.611	84.543	
1A4cii	Liquid	6.642	233.663	1.141	75.464	Gg	0.004	1.511	86.055	
3Da2a		3.981	233.663	2.101	75.464	Gg	0.003	1.226	87.281	
2I		1.070	233.663	1.153	75.464	Gg	0.003	1.216	88.497	
2D3i		2.085	233.663	1.419	75.464	Gg	0.003	1.123	89.620	
3B4gii		0.259	233.663	0.803	75.464	Gg	0.003	1.082	90.702	
3De		1.062	233.663	0.935	75.464	Gg	0.003	0.892	91.594	
1A3bii	Gasoline	1.669	233.663	0.016	75.464	Gg	0.002	0.787	92.380	
1A3bi	Diesel oil	1.332	233.663	0.070	75.464	Gg	0.002	0.543	92.923	
1A5a	Biomass	0.014	233.663	0.359	75.464	Gg	0.002	0.534	93.457	
2B10a		7.836	233.663	2.230	75.464	Gg	0.001	0.453	93.910	
1B2aiv		6.600	233.663	1.876	75.464	Gg	0.001	0.384	94.293	
2D3e		2.638	233.663	0.598	75.464	Gg	0.001	0.382	94.675	

1A1a	Other	0.001	233.663	0.224	75.464	Gg	0.001	0.337	95.012
1A1a	Solid	0.317	233.663	0.315	75.464	Gg	0.001	0.32	95.333
1A2gvii	Liquid	2.366	233.663	0.968	75.464	Gg	0.001	0.307	95.640
1A3dii	Liquid	9.646	233.663	2.919	75.464	Gg	0.001	0.295	95.935
1A4ci	Solid	0.081	233.663	0.220	75.464	Gg	0.001	0.291	96.226
2D3g		3.956	233.663	1.465	75.464	Gg	0.001	0.282	96.508
3B4gi		0.219	233.663	0.258	75.464	Gg	0.001	0.281	96.790
3B4e		0.161	233.663	0.231	75.464	Gg	0.001	0.270	97.059
1B2b		0.255	233.663	0.250	75.464	Gg	0.001	0.252	97.311
3B4h		1.028	233.663	0.493	75.464	Gg	0.001	0.242	97.553
3B2		0.110	233.663	0.143	75.464	Gg	0.000	0.161	97.715
1A2d	Biomass	0.430	233.663	0.243	75.464	Gg	0.000	0.157	97.871
1A3biv	Gasoline	2.767	233.663	0.795	75.464	Gg	0.000	0.148	98.02
3B3		0.423	233.663	0.227	75.464	Gg	0.000	0.136	98.156
1A3bii	Diesel oil	0.796	233.663	0.176	75.464	Gg	0.000	0.122	98.278
1A5a	Liquid	0.140	233.663	0.126	75.464	Gg	0.000	0.121	98.399
1B2av		7.411	233.663	2.473	75.464	Gg	0.000	0.119	98.519
1A4bii	Liquid	6.597	233.663	2.055	75.464	Gg	0.000	0.113	98.632
1A2gviii	Biomass	0.199	233.663	0.125	75.464	Gg	0.000	0.092	98.723
2D3b		0.900	233.663	0.234	75.464	Gg	0.000	0.085	98.809
1A1b	Liquid	0.005	233.663	0.056	75.464	Gg	0.000	0.082	98.891
1B1b		0.037	233.663	0.062	75.464	Gg	0.000	0.075	98.966
1A2d	Liquid	0.174	233.663	0.007	75.464	Gg	0.000	0.073	99.040
2C1		0.796	233.663	0.208	75.464	Gg	0.000	0.073	99.113
1A3ai(i)	Liquid	0.056	233.663	0.059	75.464	Gg	0.000	0.062	99.175
1A4bi	Solid	0.204	233.663	0.028	75.464	Gg	0.000	0.057	99.232
3Da3		0.099	233.663	0.069	75.464	Gg	0.000	0.056	99.289
1A4bi	Liquid	0.195	233.663	0.030	75.464	Gg	0.000	0.049	99.338
1A4ciii	Liquid	0.144	233.663	0.079	75.464	Gg	0.000	0.049	99.386
1A2a	Gaseous	0.111	233.663	0.004	75.464	Gg	0.000	0.048	99.435
3B4giii		0.006	233.663	0.031	75.464	Gg	0.000	0.044	99.478
2H1		2.966	233.663	0.932	75.464	Gg	0.000	0.039	99.518
2C7b		0.010	233.663	0.026	75.464	Gg	0.000	0.034	99.552
1A2d	Other	0.000	233.663	0.020	75.464	Gg	0.000	0.030	99.581
1A2gviii	Other	0.011	233.663	0.023	75.464	Gg	0.000	0.029	99.611
1A5a	Gaseous	0.012	233.663	0.021	75.464	Gg	0.000	0.026	99.637
2A1		0.054	233.663	0.035	75.464	Gg	0.000	0.026	99.663
1A4ci	Biomass	0.020	233.663	0.020	75.464	Gg	0.000	0.021	99.684
1A2d	Gaseous	0.077	233.663	0.013	75.464	Gg	0.000	0.018	99.702
1A1b	Gaseous	0.007	233.663	0.014	75.464	Gg	0.000	0.018	99.719
1A4ai	Solid	0.016	233.663	0.017	75.464	Gg	0.000	0.017	99.737
1A4ai	Liquid	0.125	233.663	0.052	75.464	Gg	0.000	0.017	99.754
1A1a	Liquid	0.027	233.663	0.019	75.464	Gg	0.000	0.016	99.770
2B10b		0.134	233.663	0.053	75.464	Gg	0.000	0.015	99.784
3B4giv		0.033	233.663	0.021	75.464	Gg	0.000	0.015	99.799
5A		0.234	233.663	0.067	75.464	Gg	0.000	0.013	99.812
1A2d	Solid	0.056	233.663	0.010	75.464	Gg	0.000	0.013	99.825
1A2f	Other		233.663	0.008	75.464	Gg	0.000	0.012	99.837

1A4ai	Biomass	0.007	233.663	0.010	75.464	Gg	0.000	0.011	99.848
1A4ci	Liquid	0.044	233.663	0.021	75.464	Gg	0.000	0.010	99.858
1A3biv	Diesel oil		233.663	0.006	75.464	Gg	0.000	0.009	99.867
5D1		0.003	233.663	0.007	75.464	Gg	0.000	0.009	99.876
2C7c		0.025	233.663	0.002	75.464	Gg	0.000	0.009	99.885
2C3		0.022	233.663	0.001	75.464	Gg	0.000	0.009	99.894
2G		0.027	233.663	0.015	75.464	Gg	0.000	0.008	99.902
5D2		0.022	233.663	0.012	75.464	Gg	0.000	0.008	99.910
1A2c	Gaseous	0.002	233.663	0.006	75.464	Gg	0.000	0.008	99.918
1A1a	Gaseous	0.042	233.663	0.018	75.464	Gg	0.000	0.007	99.926
1A4ai	Gaseous	0.003	233.663	0.005	75.464	Gg	0.000	0.006	99.932
3B4d		0.004	233.663	0.005	75.464	Gg	0.000	0.006	99.937
1A2a	Solid	0.017	233.663	0.009	75.464	Gg	0.000	0.006	99.943
1A3bi	Gaseous		233.663	0.003	75.464	Gg	0.000	0.005	99.948
1A4bi	Gaseous	0.003	233.663	0.004	75.464	Gg	0.000	0.004	99.952
1A2e	Biomass	0.007	233.663	0.005	75.464	Gg	0.000	0.004	99.957
1A2f	Biomass	0.000	233.663	0.003	75.464	Gg	0.000	0.004	99.961
2L		0.013	233.663	0.002	75.464	Gg	0.000	0.003	99.964
1A3biii	Gaseous		233.663	0.002	75.464	Gg	0.000	0.003	99.968
1A2gviii	Solid	0.003	233.663	0.003	75.464	Gg	0.000	0.003	99.971
1A2gviii	Gaseous	0.002	233.663	0.003	75.464	Gg	0.000	0.003	99.974
2A3		0.001	233.663	0.002	75.464	Gg	0.000	0.003	99.977
1A2e	Solid	0.019	233.663	0.008	75.464	Gg	0.000	0.003	99.979
1A2gviii	Liquid	0.017	233.663	0.007	75.464	Gg	0.000	0.002	99.982
1A2f	Liquid	0.005	233.663	0.003	75.464	Gg	0.000	0.002	99.984
2C2			233.663	0.001	75.464	Gg	0.000	0.002	99.986
1A3c	Liquid	0.234	233.663	0.074	75.464	Gg	0.000	0.002	99.988
1A2c	Other	0.003	233.663	0.000	75.464	Gg	0.000	0.001	99.989
1A2e	Liquid	0.005	233.663	0.001	75.464	Gg	0.000	0.001	99.990
1A2b	Liquid	0.001	233.663	0.001	75.464	Gg	0.000	0.001	99.992
1A1b	Biomass		233.663	0.001	75.464	Gg	0.000	0.001	99.993
1A2a	Liquid	0.003	233.663	0.000	75.464	Gg	0.000	0.001	99.994
1A3aii(i)	Liquid	0.056	233.663	0.017	75.464	Gg	0.000	0.001	99.995
1A2f	Solid	0.009	233.663	0.002	75.464	Gg	0.000	0.001	99.996
1A2a	Biomass		233.663	0.001	75.464	Gg	0.000	0.001	99.997
2C7a			233.663	0.001	75.464	Gg	0.000	0.001	99.998
1A2c	Liquid	0.004	233.663	0.002	75.464	Gg	0.000	0.001	99.998
1A3bii	Gaseous		233.663	0.000	75.464	Gg	0.000	0.000	99.999
1A2c	Biomass	0.002	233.663	0.000	75.464	Gg	0.000	0.000	99.999
1A2f	Gaseous	0.003	233.663	0.001	75.464	Gg	0.000	0.000	100
1A2e	Gaseous	0.001	233.663	0.000	75.464	Gg	0.000	0.000	100
1A4ci	Gaseous	0.002	233.663	0.001	75.464	Gg	0.000	0.000	100
1A4bi	Other	0.000	233.663	0.000	75.464	Gg	0.000	0.000	100
1A2b	Gaseous		233.663	0.000	75.464	Gg	0.000	0.000	100
1A3ei	Gaseous	0.000	233.663	0.000	75.464	Gg	0.000	0.000	100
1A1b	Solid		233.663	0.000	75.464	Gg	0.000	0.000	100
1A2b	Solid	0.000	233.663	0.000	75.464	Gg	0.000	0.000	100

## SOx

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A2d	Liquid	19.440	249.475	0.424	22.692	Gg	0.005	9.197	9.197	Yes
2H1		23.466	249.475	1.001	22.692	Gg	0.005	7.756	16.952	Yes
1A1a	Liquid	16.678	249.475	0.459	22.692	Gg	0.004	7.240	24.193	Yes
1A2b	Liquid	4.045	249.475	1.411	22.692	Gg	0.004	7.140	31.333	Yes
1A1a	Biomass	0.587	249.475	0.934	22.692	Gg	0.004	6.024	37.357	Yes
1A2d	Solid	12.017	249.475	0.255	22.692	Gg	0.003	5.734	43.091	Yes
1A1b	Gaseous	0.001	249.475	0.833	22.692	Gg	0.003	5.697	48.787	Yes
1A5a	Biomass	0.008	249.475	0.718	22.692	Gg	0.003	4.906	53.694	Yes
1A2b	Solid	4.052	249.475	1.057	22.692	Gg	0.003	4.708	58.401	Yes
2C1		2.867	249.475	0.848	22.692	Gg	0.002	4.018	62.419	Yes
1A1a	Solid	59.423	249.475	5.984	22.692	Gg	0.002	3.960	66.379	Yes
1A2a	Solid	7.266	249.475	0.217	22.692	Gg	0.002	3.040	69.419	Yes
1A2gviii	Liquid	4.935	249.475	0.069	22.692	Gg	0.002	2.597	72.016	Yes
1A2d	Biomass	6.427	249.475	0.901	22.692	Gg	0.001	2.162	74.178	Yes
1A1b	Liquid	21.319	249.475	1.657	22.692	Gg	0.001	1.933	76.111	Yes
1A2e	Liquid	3.245	249.475	0.045	22.692	Gg	0.001	1.712	77.823	Yes
1A3biii	Diesel oil	2.738	249.475	0.015	22.692	Gg	0.001	1.604	79.427	Yes
1A4ci	Solid	0.165	249.475	0.249	22.692	Gg	0.001	1.600	81.027	Yes
1A4bi	Biomass	0.206	249.475	0.244	22.692	Gg	0.001	1.542	82.569	
1A2a	Liquid	1.958	249.475	0.007	22.692	Gg	0.001	1.173	83.741	
1A2f	Solid	1.111	249.475	0.262	22.692	Gg	0.001	1.102	84.843	
1A1a	Other	0.027	249.475	0.158	22.692	Gg	0.001	1.062	85.905	
1A4ai	Liquid	10.103	249.475	1.045	22.692	Gg	0.001	0.862	86.767	
1B1b		0.795	249.475	0.195	22.692	Gg	0.000	0.839	87.606	
1A4bi	Liquid	4.226	249.475	0.264	22.692	Gg	0.000	0.820	88.427	
2C7a		0.000	249.475	0.113	22.692	Gg	0.000	0.773	89.200	
1A5a	Liquid	5.958	249.475	0.430	22.692	Gg	0.000	0.767	89.967	
1A2gviii	Biomass	0.349	249.475	0.141	22.692	Gg	0.000	0.747	90.714	
1A3dii	Liquid	1.650	249.475	0.051	22.692	Gg	0.000	0.676	91.390	
1A4ci	Liquid	3.231	249.475	0.200	22.692	Gg	0.000	0.640	92.029	
1A4cii	Liquid	0.986	249.475	0.003	22.692	Gg	0.000	0.594	92.624	
1A2gvii	Liquid	1.003	249.475	0.004	22.692	Gg	0.000	0.594	93.218	
2C7b		0.004	249.475	0.083	22.692	Gg	0.000	0.564	93.782	
1A2gviii	Solid	0.041	249.475	0.081	22.692	Gg	0.000	0.530	94.312	
1A3bi	Diesel oil	0.909	249.475	0.006	22.692	Gg	0.000	0.524	94.836	
1A5a	Gaseous	0.000	249.475	0.072	22.692	Gg	0.000	0.495	95.331	
1A2e	Solid	1.014	249.475	0.164	22.692	Gg	0.000	0.489	95.820	
2B10a		13.894	249.475	1.201	22.692	Gg	0.000	0.430	96.250	
1A3bi	Gasoline	0.860	249.475	0.016	22.692	Gg	0.000	0.429	96.679	
1A3bii	Diesel oil	0.705	249.475	0.003	22.692	Gg	0.000	0.419	97.098	
1A1b	Solid	0.467	249.475	0.001	22.692	Gg	0.000	0.283	97.381	

1A3c	Liquid	0.438	249.475	0.000	22.692	Gg	0.000	0.271	97.652
1A4aii	Liquid	0.409	249.475	0.001	22.692	Gg	0.000	0.247	97.899
1A3ai(i)	Liquid	0.021	249.475	0.035	22.692	Gg	0.000	0.224	98.123
1A2d	Other	0.390	249.475	0.065	22.692	Gg	0.000	0.203	98.325
1A4ci	Biomass	0.033	249.475	0.032	22.692	Gg	0.000	0.197	98.523
1A2c	Liquid	4.948	249.475	0.425	22.692	Gg	0.000	0.170	98.693
1A2e	Biomass	0.031	249.475	0.025	22.692	Gg	0.000	0.151	98.843
1A2c	Biomass	0.240	249.475	0.004	22.692	Gg	0.000	0.124	98.967
1A2d	Gaseous	0.201	249.475	0.000	22.692	Gg	0.000	0.122	99.089
1A4ciii	Liquid	0.195	249.475	0.000	22.692	Gg	0.000	0.119	99.208
1A4ai	Solid	0.016	249.475	0.018	22.692	Gg	0.000	0.114	99.322
1A4ai	Biomass	0.010	249.475	0.016	22.692	Gg	0.000	0.104	99.426
1A4bi	Solid	0.407	249.475	0.025	22.692	Gg	0.000	0.081	99.507
1A2f	Liquid	1.827	249.475	0.157	22.692	Gg	0.000	0.065	99.572
1A2gviii	Other	0.307	249.475	0.020	22.692	Gg	0.000	0.053	99.625
2D3i		0.089	249.475	0.001	22.692	Gg	0.000	0.052	99.677
1A3aii(i)	Liquid	0.021	249.475	0.009	22.692	Gg	0.000	0.047	99.724
1A2gviii	Gaseous	0.000	249.475	0.007	22.692	Gg	0.000	0.047	99.771
1A1b			249.475	0.006	22.692	Gg	0.000	0.041	99.812
1A2c	Other	0.044	249.475	0.000	22.692	Gg	0.000	0.028	99.840
2G		0.001	249.475	0.004	22.692	Gg	0.000	0.027	99.867
1A1b	Biomass		249.475	0.004	22.692	Gg	0.000	0.026	99.893
1A3bii	Gasoline	0.032	249.475	0.000	22.692	Gg	0.000	0.019	99.912
2C2			249.475	0.003	22.692	Gg	0.000	0.017	99.929
1A2f	Other	0.033	249.475	0.005	22.692	Gg	0.000	0.016	99.945
1A4bii	Liquid	0.032	249.475	0.001	22.692	Gg	0.000	0.015	99.960
1A2f	Biomass	0.000	249.475	0.002	22.692	Gg	0.000	0.015	99.975
2L			249.475	0.001	22.692	Gg	0.000	0.005	99.980
1A2c	Gaseous	0.000	249.475	0.001	22.692	Gg	0.000	0.004	99.985
1A1a	Gaseous	0.002	249.475	0.001	22.692	Gg	0.000	0.003	99.988
1A2f	Gaseous	0.064	249.475	0.005	22.692	Gg	0.000	0.003	99.991
1A2a	Gaseous	0.000	249.475	0.000	22.692	Gg	0.000	0.003	99.994
1A2a	Biomass		249.475	0.000	22.692	Gg	0.000	0.002	99.997
2D3g		0.002	249.475	0.000	22.692	Gg	0.000	0.001	99.998
1A3biv	Gasoline	0.007	249.475	0.000	22.692	Gg	0.000	0.001	99.999
1A4ai	Gaseous	0.000	249.475	0.000	22.692	Gg	0.000	0.000	99.999
1A4bi	Gaseous	0.000	249.475	0.000	22.692	Gg	0.000	0.000	99.999
1A4bi	Other	0.000	249.475	0.000	22.692	Gg	0.000	0.000	99.999
2C7c		0.001	249.475	0.000	22.692	Gg	0.000	0.000	100
1A3bi	Gaseous		249.475	0.000	22.692	Gg	0.000	0.000	100
1A3biii	Gaseous		249.475	0.000	22.692	Gg	0.000	0.000	100
1A3biv	Diesel oil		249.475	0.000	22.692	Gg	0.000	0.000	100
1A2e	Gaseous	0.000	249.475	0.000	22.692	Gg	0.000	0.000	100
1A2b	Gaseous		249.475	0.000	22.692	Gg	0.000	0.000	100
1A4ci	Gaseous	0.000	249.475	0.000	22.692	Gg	0.000	0.000	100
1A3bii	Gaseous		249.475	0.000	22.692	Gg	0.000	0.000	100
1A3ei	Gaseous	0.000	249.475	0.000	22.692	Gg	0.000	0.000	100

## NH3

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
3Da2a		10.937	41.402	6.521	31.583	Gg	0.044	18.274	18.274	Yes
3Da1		6.311	41.402	3.536	31.583	Gg	0.031	12.818	31.092	Yes
3B1b		5.378	41.402	5.194	31.583	Gg	0.026	10.951	42.042	Yes
3B1a		6.209	41.402	5.460	31.583	Gg	0.017	7.250	49.293	Yes
3B3		3.767	41.402	2.372	31.583	Gg	0.012	5.036	54.328	Yes
3B4gii		0.204	41.402	0.631	31.583	Gg	0.011	4.766	59.094	Yes
3Da2c		0.207	41.402	0.570	31.583	Gg	0.010	4.132	63.226	Yes
3B4h		1.873	41.402	1.027	31.583	Gg	0.010	4.033	67.260	Yes
3B4e		0.386	41.402	0.685	31.583	Gg	0.009	3.915	71.174	Yes
2H1		0.560	41.402	0.056	31.583	Gg	0.009	3.726	74.900	Yes
6A		0.455	41.402	0.706	31.583	Gg	0.009	3.592	78.492	Yes
1A3bi	Gasoline	0.235	41.402	0.531	31.583	Gg	0.009	3.532	82.024	Yes
1A4bi	Biomass	0.907	41.402	1.022	31.583	Gg	0.008	3.313	85.337	
5B2		0.003	41.402	0.242	31.583	Gg	0.006	2.401	87.738	
2B10a		0.582	41.402	0.212	31.583	Gg	0.006	2.330	90.069	
5D1		0.275	41.402	0.384	31.583	Gg	0.004	1.747	91.815	
3B4gi		0.535	41.402	0.250	31.583	Gg	0.004	1.581	93.397	
3B4giii		0.013	41.402	0.087	31.583	Gg	0.002	0.777	94.174	
3B2		0.070	41.402	0.124	31.583	Gg	0.002	0.711	94.885	
3Da3		1.801	41.402	1.435	31.583	Gg	0.001	0.614	95.499	
5B1		0.035	41.402	0.087	31.583	Gg	0.001	0.601	96.100	
3B4giv		0.104	41.402	0.030	31.583	Gg	0.001	0.491	96.590	
2D3i		0.097	41.402	0.121	31.583	Gg	0.001	0.471	97.061	
2C7b		0.100	41.402	0.033	31.583	Gg	0.001	0.434	97.495	
2D3e		0.061	41.402	0.004	31.583	Gg	0.001	0.425	97.921	
3Da2b		0.043	41.402	0.074	31.583	Gg	0.001	0.414	98.335	
2C1		0.003	41.402	0.036	31.583	Gg	0.001	0.338	98.673	
1A3biii	Diesel oil	0.010	41.402	0.030	31.583	Gg	0.001	0.224	98.897	
1A3bi	Diesel oil	0.005	41.402	0.023	31.583	Gg	0.000	0.193	99.090	
2D3g		0.024	41.402	0.002	31.583	Gg	0.000	0.164	99.255	
1A1a		0.001	41.402	0.016	31.583	Gg	0.000	0.149	99.404	
1A2gviii			41.402	0.010	31.583	Gg	0.000	0.104	99.508	
1A3bi	Gaseous		41.402	0.010	31.583	Gg	0.000	0.096	99.604	
2G		0.024	41.402	0.008	31.583	Gg	0.000	0.095	99.699	
2L		0.020	41.402	0.007	31.583	Gg	0.000	0.086	99.785	
1A3bii	Diesel oil	0.003	41.402	0.009	31.583	Gg	0.000	0.063	99.848	
3B4d		0.006	41.402	0.008	31.583	Gg	0.000	0.037	99.885	
1A4ai	Biomass	0.003	41.402	0.005	31.583	Gg	0.000	0.029	99.914	
1A4ci	Biomass	0.011	41.402	0.010	31.583	Gg	0.000	0.019	99.933	
1B1b		0.002	41.402	0.003	31.583	Gg	0.000	0.016	99.950	
1A3biv	Gasoline	0.001	41.402	0.002	31.583	Gg	0.000	0.013	99.962	
1A2gvii	Liquid	0.002	41.402	0.003	31.583	Gg	0.000	0.011	99.974	

1A3biii	Gaseous		41.402	0.001	31.583	Gg	0.000	0.008	99.982
1A3bii	Gaseous		41.402	0.001	31.583	Gg	0.000	0.006	99.988
2C7c		0.000	41.402	0.000	31.583	Gg	0.000	0.003	99.991
1A3bii	Gasoline	0.002	41.402	0.001	31.583	Gg	0.000	0.003	99.993
1A3c	Liquid	0.000	41.402	0.000	31.583	Gg	0.000	0.002	99.995
1A4bii	Liquid	0.000	41.402	0.000	31.583	Gg	0.000	0.001	99.997
1A4ciii	Liquid	0.000	41.402	0.000	31.583	Gg	0.000	0.001	99.997
1A4cii	Liquid	0.002	41.402	0.002	31.583	Gg	0.000	0.001	99.998
1A4aii	Liquid	0.001	41.402	0.001	31.583	Gg	0.000	0.001	99.999
1A3dii	Liquid	0.001	41.402	0.001	31.583	Gg	0.000	0.001	99.999
1A3biv	Diesel oil		41.402	0.000	31.583	Gg	0.000	0.000	100
1A5a	Liquid	0.000	41.402	0.000	31.583	Gg	0.000	0.000	100

## PM2.5

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A4bi	Biomass	7.392	47.262	7.284	13.384	Gg	0.110	35.199	35.199	Yes
1A2d	Biomass	9.011	47.262	0.653	13.384	Gg	0.040	12.874	48.073	Yes
1A3biii	Diesel oil	4.287	47.262	0.099	13.384	Gg	0.024	7.559	55.632	Yes
2C1		3.152	47.262	0.197	13.384	Gg	0.015	4.716	60.348	Yes
1A3bi	Diesel oil	2.366	47.262	0.141	13.384	Gg	0.011	3.585	63.933	Yes
1A3bvi		0.542	47.262	0.607	13.384	Gg	0.010	3.077	67.011	Yes
1A5a	Biomass	0.002	47.262	0.359	13.384	Gg	0.008	2.429	69.440	Yes
1A1a	Solid	1.570	47.262	0.095	13.384	Gg	0.007	2.369	71.809	Yes
1A3bvii		0.404	47.262	0.450	13.384	Gg	0.007	2.274	74.083	Yes
1A4cii	Liquid	1.620	47.262	0.141	13.384	Gg	0.007	2.157	76.239	Yes
2H2		0.303	47.262	0.399	13.384	Gg	0.007	2.123	78.363	Yes
2H1		1.455	47.262	0.176	13.384	Gg	0.005	1.604	79.966	Yes
1A1a	Liquid	0.704	47.262	0.015	13.384	Gg	0.004	1.252	81.219	Yes
1A2gvii	Liquid	1.422	47.262	0.228	13.384	Gg	0.004	1.186	82.404	
1A3bii	Diesel oil	1.074	47.262	0.147	13.384	Gg	0.003	1.065	83.470	
1A2f	Solid	0.526	47.262	0.001	13.384	Gg	0.003	1.002	84.472	
1A4aii	Liquid	0.746	47.262	0.069	13.384	Gg	0.003	0.968	85.440	
2A5b		0.504	47.262	0.001	13.384	Gg	0.003	0.960	86.400	
3Dc		0.268	47.262	0.213	13.384	Gg	0.003	0.928	87.328	
1A3dii	Liquid	0.548	47.262	0.289	13.384	Gg	0.003	0.909	88.237	
1A2gviii	Liquid	0.464	47.262	0.006	13.384	Gg	0.003	0.847	89.084	
1A2d	Liquid	0.652	47.262	0.069	13.384	Gg	0.002	0.781	89.865	
1B1c		1.085	47.262	0.204	13.384	Gg	0.002	0.701	90.565	
2C2		0.014	47.262	0.076	13.384	Gg	0.002	0.489	91.055	
1A2d	Solid	0.264	47.262	0.005	13.384	Gg	0.001	0.475	91.530	
1A4ci	Biomass	0.101	47.262	0.095	13.384	Gg	0.001	0.450	91.980	
2B10a		0.738	47.262	0.148	13.384	Gg	0.001	0.416	92.396	
1A4ai	Liquid	0.506	47.262	0.084	13.384	Gg	0.001	0.405	92.802	
1A5a	Liquid	0.308	47.262	0.031	13.384	Gg	0.001	0.381	93.183	

1A2f	Liquid	0.219	47.262	0.008	13.384	Gg	0.001	0.365	93.547
1B2aiv		0.189	47.262	0.000	13.384	Gg	0.001	0.362	93.909
1A4bii	Liquid	0.242	47.262	0.122	13.384	Gg	0.001	0.360	94.270
2C7c		0.201	47.262	0.005	13.384	Gg	0.001	0.349	94.619
1A4bi	Solid	0.326	47.262	0.045	13.384	Gg	0.001	0.323	94.942
1A4ai	Biomass	0.030	47.262	0.051	13.384	Gg	0.001	0.286	95.227
2B6		0.149	47.262	0.001	13.384	Gg	0.001	0.282	95.509
1A4ci	Liquid	0.167	47.262	0.007	13.384	Gg	0.001	0.273	95.782
1A2e	Liquid	0.143	47.262	0.003	13.384	Gg	0.001	0.258	96.040
2I		0.131	47.262	0.000	13.384	Gg	0.001	0.251	96.291
1A2gviii	Biomass	0.211	47.262	0.095	13.384	Gg	0.001	0.241	96.532
2D3i		0.064	47.262	0.051	13.384	Gg	0.001	0.223	96.755
1A4bi	Liquid	0.219	47.262	0.030	13.384	Gg	0.001	0.219	96.973
2A3		0.124	47.262	0.005	13.384	Gg	0.001	0.207	97.180
2D3b		0.087	47.262	0.055	13.384	Gg	0.001	0.205	97.385
1A2c	Liquid	0.169	47.262	0.021	13.384	Gg	0.001	0.183	97.568
1A2a	Solid	0.089	47.262	0.001	13.384	Gg	0.001	0.164	97.731
3B1b		0.079	47.262	0.046	13.384	Gg	0.001	0.162	97.893
1A4ciii	Liquid	0.072	47.262	0.041	13.384	Gg	0.000	0.140	98.033
1A1a	Biomass	0.265	47.262	0.055	13.384	Gg	0.000	0.135	98.168
1A4ci	Solid	0.009	47.262	0.022	13.384	Gg	0.000	0.134	98.302
1A2a	Liquid	0.069	47.262	0.000	13.384	Gg	0.000	0.131	98.434
2A5a		0.068	47.262	0.000	13.384	Gg	0.000	0.130	98.563
1A3bi	Gasoline	0.174	47.262	0.032	13.384	Gg	0.000	0.115	98.678
3B1a		0.132	47.262	0.053	13.384	Gg	0.000	0.102	98.780
5E		0.378	47.262	0.122	13.384	Gg	0.000	0.100	98.881
2A5c		0.049	47.262	0.027	13.384	Gg	0.000	0.090	98.971
2G		0.153	47.262	0.055	13.384	Gg	0.000	0.079	99.051
1A1b	Liquid	0.096	47.262	0.016	13.384	Gg	0.000	0.074	99.125
1A2e	Solid	0.036	47.262	0.000	13.384	Gg	0.000	0.066	99.191
3B4gii		0.003	47.262	0.009	13.384	Gg	0.000	0.059	99.250
1A2b	Liquid	0.038	47.262	0.002	13.384	Gg	0.000	0.056	99.306
2C6		0.028	47.262	0.000	13.384	Gg	0.000	0.054	99.360
2A2		0.026	47.262	0.000	13.384	Gg	0.000	0.049	99.409
2L		0.054	47.262	0.008	13.384	Gg	0.000	0.048	99.457
3B4gi		0.014	47.262	0.011	13.384	Gg	0.000	0.047	99.505
2C7a		0.026	47.262	0.000	13.384	Gg	0.000	0.046	99.551
1B1b		0.003	47.262	0.008	13.384	Gg	0.000	0.045	99.596
1A3biv	Gasoline	0.057	47.262	0.010	13.384	Gg	0.000	0.044	99.640
1A2d	Other	0.005	47.262	0.007	13.384	Gg	0.000	0.038	99.678
1A3biv	Diesel oil		47.262	0.005	13.384	Gg	0.000	0.034	99.712
3B4e		0.004	47.262	0.006	13.384	Gg	0.000	0.033	99.745
1A2b	Solid	0.014	47.262	0.000	13.384	Gg	0.000	0.027	99.772
2D3g		0.016	47.262	0.001	13.384	Gg	0.000	0.026	99.798
1A3ai(i)	Liquid	0.003	47.262	0.004	13.384	Gg	0.000	0.024	99.822
3B4giii		0.001	47.262	0.003	13.384	Gg	0.000	0.019	99.84
1A2gviii	Other	0.009	47.262	0.000	13.384	Gg	0.000	0.017	99.857
1A2e	Biomass	0.011	47.262	0.001	13.384	Gg	0.000	0.014	99.872

1A2c	Biomass	0.016	47.262	0.003	13.384	Gg	0.000	0.013	99.884
3B4giv		0.032	47.262	0.011	13.384	Gg	0.000	0.011	99.896
1A3bii	Gasoline	0.006	47.262	0.000	13.384	Gg	0.000	0.010	99.906
3B4h		0.013	47.262	0.005	13.384	Gg	0.000	0.010	99.916
1A4ai	Solid	0.002	47.262	0.002	13.384	Gg	0.000	0.009	99.924
5C1bv		0.000	47.262	0.001	13.384	Gg	0.000	0.009	99.933
1B2av		0.005	47.262	0.000	13.384	Gg	0.000	0.008	99.941
2B10b		0.001	47.262	0.001	13.384	Gg	0.000	0.008	99.949
3B2		0.001	47.262	0.001	13.384	Gg	0.000	0.007	99.957
1A2f	Other		47.262	0.001	13.384	Gg	0.000	0.007	99.964
1A1a	Other	0.001	47.262	0.001	13.384	Gg	0.000	0.007	99.970
1A3c	Liquid	0.084	47.262	0.025	13.384	Gg	0.000	0.006	99.977
3B3		0.004	47.262	0.002	13.384	Gg	0.000	0.005	99.982
1A3aii(i)	Liquid	0.002	47.262	0.001	13.384	Gg	0.000	0.004	99.985
2D3d		0.000	47.262	0.001	13.384	Gg	0.000	0.004	99.989
1A2gviii	Solid	0.005	47.262	0.001	13.384	Gg	0.000	0.003	99.992
2C7d		0.001	47.262	0.001	13.384	Gg	0.000	0.003	99.995
1A3bi	Gaseous		47.262	0.000	13.384	Gg	0.000	0.002	99.997
2C3		0.001	47.262	0.000	13.384	Gg	0.000	0.001	99.997
1A1b	Solid	0.000	47.262	0.000	13.384	Gg	0.000	0.001	99.998
1A3biii	Gaseous		47.262	0.000	13.384	Gg	0.000	0.001	99.999
1A4bi	Other	0.000	47.262	0.000	13.384	Gg	0.000	0.000	99.999
3B4d		0.000	47.262	0.000	13.384	Gg	0.000	0.000	99.999
1A2f	Biomass	0.000	47.262	0.000	13.384	Gg	0.000	0.000	100
1A3bii	Gaseous		47.262	0.000	13.384	Gg	0.000	0.000	100
5A		0.000	47.262	0.000	13.384	Gg	0.000	0.000	100
1A2a	Biomass		47.262	0.000	13.384	Gg	0.000	0.000	100

## PM10

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A4bi	Biomass	7.630	74.093	7.519	26.778	Gg	0.064	16.865	16.865	Yes
1A3bvii		4.766	74.093	5.323	26.778	Gg	0.049	12.753	29.618	Yes
1A2d	Biomass	11.986	74.093	1.115	26.778	Gg	0.043	11.393	41.011	Yes
3Dc		4.897	74.093	3.850	26.778	Gg	0.028	7.370	48.381	Yes
1A5a	Biomass	0.012	74.093	1.866	26.778	Gg	0.025	6.595	54.976	Yes
1A1a	Solid	6.132	74.093	0.400	26.778	Gg	0.025	6.431	61.407	Yes
1A3biii	Diesel oil	4.287	74.093	0.099	26.778	Gg	0.020	5.136	66.543	Yes
2C1		4.059	74.093	0.214	26.778	Gg	0.017	4.438	70.981	Yes
1A3bvi		0.982	74.093	1.102	26.778	Gg	0.010	2.646	73.627	Yes
1A3bi	Diesel oil	2.366	74.093	0.141	26.778	Gg	0.010	2.528	76.155	Yes
1A4cii	Liquid	1.620	74.093	0.141	26.778	Gg	0.006	1.575	77.730	Yes
2H1		2.011	74.093	0.310	26.778	Gg	0.006	1.475	79.205	Yes
1A1a	Liquid	1.057	74.093	0.024	26.778	Gg	0.005	1.269	80.474	Yes
1A2f	Solid	0.971	74.093	0.010	26.778	Gg	0.005	1.209	81.683	

2H2		0.320	74.093	0.414	26.778	Gg	0.004	1.055	82.738
1A2gvii	Liquid	1.422	74.093	0.228	26.778	Gg	0.004	1.014	83.751
1A2d	Solid	0.818	74.093	0.010	26.778	Gg	0.004	1.011	84.762
2A5b		0.796	74.093	0.009	26.778	Gg	0.004	0.988	85.750
1B1c		1.544	74.093	0.290	26.778	Gg	0.004	0.949	86.699
1A2d	Liquid	0.907	74.093	0.060	26.778	Gg	0.004	0.949	87.648
1A2gviii	Liquid	0.737	74.093	0.013	26.778	Gg	0.003	0.898	88.546
1A3bii	Diesel oil	1.074	74.093	0.147	26.778	Gg	0.003	0.854	89.400
1A4aii	Liquid	0.746	74.093	0.069	26.778	Gg	0.003	0.712	90.112
1A4ai	Liquid	0.814	74.093	0.148	26.778	Gg	0.002	0.517	90.629
2C7c		0.408	74.093	0.006	26.778	Gg	0.002	0.500	91.129
1A2a	Solid	0.398	74.093	0.005	26.778	Gg	0.002	0.493	91.621
1A5a	Liquid	0.485	74.093	0.050	26.778	Gg	0.002	0.442	92.063
1B2aiv		0.312	74.093	0.001	26.778	Gg	0.002	0.397	92.460
1A2f	Liquid	0.358	74.093	0.021	26.778	Gg	0.001	0.382	92.842
2C2		0.020	74.093	0.108	26.778	Gg	0.001	0.357	93.199
1A4ci	Solid	0.045	74.093	0.116	26.778	Gg	0.001	0.353	93.552
2A5c		0.477	74.093	0.265	26.778	Gg	0.001	0.327	93.879
1A3dii	Liquid	0.565	74.093	0.295	26.778	Gg	0.001	0.323	94.202
3B4gii		0.031	74.093	0.095	26.778	Gg	0.001	0.297	94.499
1A4bi	Liquid	0.336	74.093	0.039	26.778	Gg	0.001	0.293	94.792
1A4bi	Solid	0.367	74.093	0.050	26.778	Gg	0.001	0.292	95.084
2A5a		0.230	74.093	0.002	26.778	Gg	0.001	0.287	95.371
3B4gi		0.189	74.093	0.147	26.778	Gg	0.001	0.278	95.649
1A4ci	Liquid	0.269	74.093	0.019	26.778	Gg	0.001	0.276	95.925
2I		0.271	74.093	0.021	26.778	Gg	0.001	0.274	96.199
1A2e	Liquid	0.221	74.093	0.005	26.778	Gg	0.001	0.264	96.463
2B6		0.198	74.093	0.001	26.778	Gg	0.001	0.251	96.714
1A4ci	Biomass	0.104	74.093	0.101	26.778	Gg	0.001	0.226	96.940
1A2e	Solid	0.176	74.093	0.002	26.778	Gg	0.001	0.219	97.159
1A1b	Liquid	0.223	74.093	0.022	26.778	Gg	0.001	0.207	97.366
2C6		0.146	74.093	0.000	26.778	Gg	0.001	0.186	97.552
2B10a		1.156	74.093	0.371	26.778	Gg	0.001	0.167	97.720
2A3		0.142	74.093	0.005	26.778	Gg	0.001	0.164	97.883
1A2c	Liquid	0.267	74.093	0.052	26.778	Gg	0.001	0.159	98.042
1A2a	Liquid	0.117	74.093	0.000	26.778	Gg	0.001	0.149	98.191
1A4ai	Biomass	0.032	74.093	0.052	26.778	Gg	0.001	0.144	98.335
1A4bii	Liquid	0.242	74.093	0.122	26.778	Gg	0.000	0.121	98.456
1A3bi	Gasoline	0.174	74.093	0.032	26.778	Gg	0.000	0.108	98.564
3B1b		0.122	74.093	0.071	26.778	Gg	0.000	0.095	98.659
1A2b	Solid	0.075	74.093	0.001	26.778	Gg	0.000	0.093	98.752
2D3b		0.095	74.093	0.060	26.778	Gg	0.000	0.090	98.843
2A2		0.072	74.093	0.001	26.778	Gg	0.000	0.089	98.931
1A2gviii	Biomass	0.678	74.093	0.228	26.778	Gg	0.000	0.061	98.992
1A2gviii	Other	0.048	74.093	0.001	26.778	Gg	0.000	0.059	99.051
1A2b	Liquid	0.059	74.093	0.005	26.778	Gg	0.000	0.059	99.110
2L		0.081	74.093	0.013	26.778	Gg	0.000	0.058	99.168
1A4ciii	Liquid	0.077	74.093	0.044	26.778	Gg	0.000	0.057	99.225

1A1a	Biomass	0.626	74.093	0.242	26.778	Gg	0.000	0.056	99.281
1B1b		0.008	74.093	0.018	26.778	Gg	0.000	0.054	99.335
3B4giii		0.003	74.093	0.016	26.778	Gg	0.000	0.053	99.388
5E		0.378	74.093	0.122	26.778	Gg	0.000	0.052	99.441
1A2d	Other	0.011	74.093	0.019	26.778	Gg	0.000	0.052	99.493
2D3i		0.187	74.093	0.055	26.778	Gg	0.000	0.044	99.536
2C7a		0.034	74.093	0.000	26.778	Gg	0.000	0.041	99.578
1A3biv	Gasoline	0.057	74.093	0.010	26.778	Gg	0.000	0.039	99.616
1A2e	Biomass	0.040	74.093	0.004	26.778	Gg	0.000	0.038	99.654
3B3		0.086	74.093	0.041	26.778	Gg	0.000	0.034	99.689
2B10b		0.007	74.093	0.011	26.778	Gg	0.000	0.030	99.719
3B1a		0.203	74.093	0.081	26.778	Gg	0.000	0.026	99.745
3B4e		0.006	74.093	0.009	26.778	Gg	0.000	0.025	99.770
1A2c	Biomass	0.025	74.093	0.002	26.778	Gg	0.000	0.024	99.795
1A4ai	Solid	0.009	74.093	0.009	26.778	Gg	0.000	0.022	99.816
3B4giv		0.227	74.093	0.076	26.778	Gg	0.000	0.021	99.837
1A3c	Liquid	0.089	74.093	0.026	26.778	Gg	0.000	0.021	99.858
2D3g		0.017	74.093	0.001	26.778	Gg	0.000	0.018	99.876
1A3biv	Diesel oil		74.093	0.005	26.778	Gg	0.000	0.018	99.894
1A1a	Other	0.002	74.093	0.006	26.778	Gg	0.000	0.017	99.911
1A2gviii	Solid	0.022	74.093	0.004	26.778	Gg	0.000	0.013	99.924
2C7d		0.006	74.093	0.006	26.778	Gg	0.000	0.012	99.936
1A3ai(i)	Liquid	0.003	74.093	0.004	26.778	Gg	0.000	0.011	99.947
3B2		0.002	74.093	0.004	26.778	Gg	0.000	0.011	99.958
1A2f	Other		74.093	0.002	26.778	Gg	0.000	0.008	99.966
1A3bii	Gasoline	0.006	74.093	0.000	26.778	Gg	0.000	0.007	99.973
1B2av		0.005	74.093	0.000	26.778	Gg	0.000	0.006	99.979
5C1bv		0.000	74.093	0.001	26.778	Gg	0.000	0.004	99.983
2D3d		0.000	74.093	0.001	26.778	Gg	0.000	0.003	99.986
3B4h		0.027	74.093	0.010	26.778	Gg	0.000	0.003	99.989
1A2f	Biomass	0.000	74.093	0.001	26.778	Gg	0.000	0.002	99.991
1A1b	Solid	0.002	74.093	0.000	26.778	Gg	0.000	0.002	99.994
1A3aii(i)	Liquid	0.002	74.093	0.001	26.778	Gg	0.000	0.001	99.995
2C3		0.002	74.093	0.000	26.778	Gg	0.000	0.001	99.996
1A3bi	Gaseous		74.093	0.000	26.778	Gg	0.000	0.001	99.998
2G		0.153	74.093	0.055	26.778	Gg	0.000	0.001	99.998
3B4d		0.000	74.093	0.000	26.778	Gg	0.000	0.000	99.999
1A2a	Biomass		74.093	0.000	26.778	Gg	0.000	0.000	99.999
1A4bi	Other	0.000	74.093	0.000	26.778	Gg	0.000	0.000	100
1A3biii	Gaseous		74.093	0.000	26.778	Gg	0.000	0.000	100
1A3bii	Gaseous		74.093	0.000	26.778	Gg	0.000	0.000	100
5A		0.001	74.093	0.000	26.778	Gg	0.000	0.000	100

TSP

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A5a	Biomass	0.046	98.873	7.178	42.014	Gg	0.072	15.809	15.809	Yes
1A3bvii		9.531	98.873	10.646	42.014	Gg	0.067	14.566	30.375	Yes
1A2d	Biomass	14.007	98.873	1.242	42.014	Gg	0.048	10.401	40.777	Yes
1A4bi	Biomass	7.948	98.873	7.832	42.014	Gg	0.045	9.838	50.615	Yes
1A1a	Solid	9.459	98.873	1.068	42.014	Gg	0.030	6.519	57.134	Yes
2C1		5.545	98.873	0.260	42.014	Gg	0.021	4.63	61.764	Yes
3Dc		4.897	98.873	3.850	42.014	Gg	0.018	3.908	65.672	Yes
1A3biii	Diesel oil	4.287	98.873	0.099	42.014	Gg	0.017	3.804	69.475	Yes
1A3bvi		1.325	98.873	1.485	42.014	Gg	0.009	2.037	71.512	Yes
1A3bi	Diesel oil	2.366	98.873	0.141	42.014	Gg	0.009	1.908	73.421	Yes
1A2f	Solid	1.954	98.873	0.028	42.014	Gg	0.008	1.771	75.191	Yes
2H1		2.447	98.873	0.323	42.014	Gg	0.007	1.582	76.773	Yes
1B1c		2.363	98.873	0.444	42.014	Gg	0.006	1.237	78.010	Yes
1A4cii	Liquid	1.620	98.873	0.141	42.014	Gg	0.006	1.209	79.220	Yes
1A2d	Liquid	1.441	98.873	0.093	42.014	Gg	0.005	1.147	80.366	Yes
1A1a	Liquid	1.214	98.873	0.038	42.014	Gg	0.005	1.055	81.421	
1A2d	Solid	1.150	98.873	0.013	42.014	Gg	0.005	1.050	82.471	
2A5b		1.014	98.873	0.028	42.014	Gg	0.004	0.889	83.359	
1A2a	Solid	0.941	98.873	0.013	42.014	Gg	0.004	0.855	84.214	
1A2gvii	Liquid	1.422	98.873	0.228	42.014	Gg	0.004	0.831	85.045	
1A4ci	Solid	0.168	98.873	0.443	42.014	Gg	0.004	0.821	85.867	
2C7c		0.855	98.873	0.010	42.014	Gg	0.004	0.781	86.648	
1A2gviii	Liquid	0.821	98.873	0.018	42.014	Gg	0.003	0.730	87.378	
3B4gi		0.897	98.873	0.698	42.014	Gg	0.003	0.699	88.077	
1A3bii	Diesel oil	1.074	98.873	0.147	42.014	Gg	0.003	0.683	88.760	
2H2		0.329	98.873	0.431	42.014	Gg	0.003	0.642	89.402	
1A2gviii	Biomass	1.586	98.873	0.387	42.014	Gg	0.003	0.635	90.037	
1A4aii	Liquid	0.746	98.873	0.069	42.014	Gg	0.003	0.549	90.586	
2C6		0.562	98.873	0.001	42.014	Gg	0.002	0.526	91.112	
1A4ai	Liquid	0.994	98.873	0.198	42.014	Gg	0.002	0.495	91.607	
2D3i		0.598	98.873	0.059	42.014	Gg	0.002	0.430	92.037	
1B2aiv		0.442	98.873	0.001	42.014	Gg	0.002	0.413	92.450	
1A5a	Liquid	0.591	98.873	0.075	42.014	Gg	0.002	0.388	92.839	
1A2e	Solid	0.420	98.873	0.005	42.014	Gg	0.002	0.384	93.223	
2B10a		1.409	98.873	0.429	42.014	Gg	0.002	0.375	93.597	
2A5a		0.400	98.873	0.004	42.014	Gg	0.002	0.367	93.964	
3B4gii		0.061	98.873	0.190	42.014	Gg	0.002	0.362	94.326	
2A5c		1.217	98.873	0.678	42.014	Gg	0.002	0.356	94.683	
1A2f	Liquid	0.449	98.873	0.036	42.014	Gg	0.002	0.342	95.025	
1A1b	Liquid	0.536	98.873	0.080	42.014	Gg	0.001	0.325	95.350	
2I		0.590	98.873	0.111	42.014	Gg	0.001	0.308	95.657	
1A4bi	Liquid	0.425	98.873	0.043	42.014	Gg	0.001	0.304	95.961	
1A2b	Solid	0.290	98.873	0.004	42.014	Gg	0.001	0.263	96.224	
1A4bi	Solid	0.408	98.873	0.056	42.014	Gg	0.001	0.259	96.483	
2C2		0.023	98.873	0.127	42.014	Gg	0.001	0.258	96.742	

1A4ci	Liquid	0.329	98.873	0.034	42.014	Gg	0.001	0.234	96.976
2B6		0.248	98.873	0.001	42.014	Gg	0.001	0.230	97.206
1A2e	Liquid	0.260	98.873	0.008	42.014	Gg	0.001	0.226	97.432
1A2gviii	Other	0.189	98.873	0.001	42.014	Gg	0.001	0.175	97.607
2A2		0.174	98.873	0.002	42.014	Gg	0.001	0.159	97.766
1A2c	Liquid	0.299	98.873	0.061	42.014	Gg	0.001	0.146	97.912
1A2a	Liquid	0.157	98.873	0.001	42.014	Gg	0.001	0.146	98.058
1A4ci	Biomass	0.108	98.873	0.111	42.014	Gg	0.001	0.143	98.201
2A3		0.158	98.873	0.006	42.014	Gg	0.001	0.136	98.337
1A3dii	Liquid	0.565	98.873	0.295	42.014	Gg	0.001	0.122	98.459
1A1a	Biomass	1.331	98.873	0.515	42.014	Gg	0.001	0.112	98.570
3B3		0.518	98.873	0.262	42.014	Gg	0.000	0.092	98.663
3B1b		0.264	98.873	0.154	42.014	Gg	0.000	0.092	98.755
1A3bi	Gasoline	0.174	98.873	0.032	42.014	Gg	0.000	0.092	98.847
5E		0.378	98.873	0.122	42.014	Gg	0.000	0.086	98.932
1A4ai	Biomass	0.037	98.873	0.054	42.014	Gg	0.000	0.085	99.018
1B1b		0.019	98.873	0.043	42.014	Gg	0.000	0.078	99.095
2D3b		0.126	98.873	0.080	42.014	Gg	0.000	0.057	99.153
2B10b		0.023	98.873	0.035	42.014	Gg	0.000	0.056	99.209
1A2e	Biomass	0.074	98.873	0.007	42.014	Gg	0.000	0.054	99.263
1A2gviii	Solid	0.070	98.873	0.006	42.014	Gg	0.000	0.052	99.315
1A2b	Liquid	0.069	98.873	0.006	42.014	Gg	0.000	0.052	99.367
1A2d	Other	0.017	98.873	0.031	42.014	Gg	0.000	0.052	99.419
2L		0.093	98.873	0.017	42.014	Gg	0.000	0.049	99.468
1A4ai	Solid	0.034	98.873	0.036	42.014	Gg	0.000	0.047	99.515
3B4giv		0.234	98.873	0.079	42.014	Gg	0.000	0.046	99.561
1A4bii	Liquid	0.242	98.873	0.122	42.014	Gg	0.000	0.042	99.603
2C7a		0.043	98.873	0.001	42.014	Gg	0.000	0.039	99.641
3B4e		0.014	98.873	0.021	42.014	Gg	0.000	0.033	99.674
3B4giii		0.003	98.873	0.016	42.014	Gg	0.000	0.033	99.706
1A3biv	Gasoline	0.057	98.873	0.010	42.014	Gg	0.000	0.032	99.739
1A1a	Other	0.013	98.873	0.018	42.014	Gg	0.000	0.028	99.766
3B1a		0.445	98.873	0.177	42.014	Gg	0.000	0.027	99.794
1A3c	Liquid	0.094	98.873	0.028	42.014	Gg	0.000	0.027	99.821
1A4ciii	Liquid	0.077	98.873	0.044	42.014	Gg	0.000	0.025	99.845
2G		0.153	98.873	0.055	42.014	Gg	0.000	0.022	99.867
1A2c	Biomass	0.029	98.873	0.003	42.014	Gg	0.000	0.021	99.888
3B2		0.005	98.873	0.009	42.014	Gg	0.000	0.015	99.904
1A2f	Other	0.029	98.873	0.006	42.014	Gg	0.000	0.015	99.919
2D3g		0.019	98.873	0.001	42.014	Gg	0.000	0.014	99.933
2C7d		0.012	98.873	0.011	42.014	Gg	0.000	0.013	99.946
1A3biv	Diesel oil		98.873	0.005	42.014	Gg	0.000	0.011	99.957
1A1b	Solid	0.009	98.873	0.001	42.014	Gg	0.000	0.007	99.964
1A3ai(i)	Liquid	0.003	98.873	0.004	42.014	Gg	0.000	0.007	99.970
1A2f	Biomass	0.001	98.873	0.003	42.014	Gg	0.000	0.005	99.976
1A3bii	Gasoline	0.006	98.873	0.000	42.014	Gg	0.000	0.005	99.981
3B4h		0.060	98.873	0.024	42.014	Gg	0.000	0.004	99.985
1B2av		0.005	98.873	0.000	42.014	Gg	0.000	0.004	99.989

5C1bv		0.000	98.873	0.002	42.014	Gg	0.000	0.003	99.992
2D3d		0.001	98.873	0.001	42.014	Gg	0.000	0.002	99.995
2C3		0.003	98.873	0.000	42.014	Gg	0.000	0.002	99.996
1A2a	Biomass		98.873	0.000	42.014	Gg	0.000	0.001	99.997
1A3bi	Gaseous		98.873	0.000	42.014	Gg	0.000	0.001	99.998
3B4d		0.000	98.873	0.000	42.014	Gg	0.000	0.001	99.999
1A3aii(i)	Liquid	0.002	98.873	0.001	42.014	Gg	0.000	0.001	99.999
5A		0.003	98.873	0.001	42.014	Gg	0.000	0.000	99.999
1A4bi	Other	0.000	98.873	0.000	42.014	Gg	0.000	0.000	100
1A3biii	Gaseous		98.873	0.000	42.014	Gg	0.000	0.000	100
1A3bii	Gaseous		98.873	0.000	42.014	Gg	0.000	0.000	100

## BC

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A4bi	Biomass	2.260	10.145	2.101	3.121	Gg	0.139	40.081	40.081	Yes
1A3biii	Diesel oil	2.272	10.145	0.053	3.121	Gg	0.064	18.420	58.501	Yes
1A3bi	Diesel oil	1.349	10.145	0.081	3.121	Gg	0.033	9.528	68.029	Yes
1A4cii	Liquid	0.877	10.145	0.061	3.121	Gg	0.021	5.955	73.984	Yes
1A2gvii	Liquid	0.877	10.145	0.139	3.121	Gg	0.013	3.728	77.712	Yes
1A3bvi		0.140	10.145	0.157	3.121	Gg	0.011	3.243	80.955	Yes
1A3bii	Diesel oil	0.591	10.145	0.081	3.121	Gg	0.010	2.873	83.828	
1A5a	Biomass	0.000	10.145	0.100	3.121	Gg	0.010	2.864	86.692	
1A3bvii		0.079	10.145	0.088	3.121	Gg	0.006	1.825	88.516	
1A4aii	Liquid	0.230	10.145	0.018	3.121	Gg	0.005	1.513	90.030	
1A1a	Liquid	0.177	10.145	0.003	3.121	Gg	0.005	1.464	91.494	
1A2gviii	Liquid	0.140	10.145	0.002	3.121	Gg	0.004	1.180	92.673	
1A3dii	Liquid	0.069	10.145	0.052	3.121	Gg	0.003	0.861	93.534	
1A2d	Liquid	0.103	10.145	0.006	3.121	Gg	0.003	0.738	94.273	
1A4ai	Liquid	0.152	10.145	0.025	3.121	Gg	0.002	0.614	94.886	
1A2f	Liquid	0.066	10.145	0.002	3.121	Gg	0.002	0.519	95.405	
1A5a	Liquid	0.094	10.145	0.012	3.121	Gg	0.002	0.469	95.874	
1A4bii	Liquid	0.027	10.145	0.023	3.121	Gg	0.001	0.427	96.301	
1A4ci	Liquid	0.050	10.145	0.002	3.121	Gg	0.001	0.378	96.678	
1A2e	Liquid	0.043	10.145	0.001	3.121	Gg	0.001	0.355	97.033	
1A4bi	Liquid	0.072	10.145	0.010	3.121	Gg	0.001	0.348	97.381	
1A2c	Liquid	0.050	10.145	0.005	3.121	Gg	0.001	0.294	97.675	
2H1		0.047	10.145	0.005	3.121	Gg	0.001	0.284	97.960	
1A1a	Solid	0.040	10.145	0.003	3.121	Gg	0.001	0.270	98.230	
2C2		0.001	10.145	0.008	3.121	Gg	0.001	0.205	98.435	
1A4ciii	Liquid	0.024	10.145	0.014	3.121	Gg	0.001	0.178	98.613	
1A2a	Liquid	0.015	10.145	0.000	3.121	Gg	0.000	0.132	98.745	
1A2f	Solid	0.012	10.145	0.000	3.121	Gg	0.000	0.100	98.845	
1B1b		0.002	10.145	0.004	3.121	Gg	0.000	0.092	98.937	
1A2b	Liquid	0.011	10.145	0.001	3.121	Gg	0.000	0.084	99.021	

2C1		0.012	10.145	0.001	3.121	Gg	0.000	0.083	99.103
1A3biv	Diesel oil		10.145	0.003	3.121	Gg	0.000	0.081	99.184
1A1b	Liquid	0.011	10.145	0.001	3.121	Gg	0.000	0.077	99.261
1A2d	Biomass	0.031	10.145	0.007	3.121	Gg	0.000	0.075	99.336
1A3bi	Gasoline	0.021	10.145	0.004	3.121	Gg	0.000	0.072	99.408
1A2d	Solid	0.008	10.145	0.000	3.121	Gg	0.000	0.061	99.470
1A4ci	Biomass	0.003	10.145	0.003	3.121	Gg	0.000	0.059	99.528
1A2gviii	Biomass	0.007	10.145	0.004	3.121	Gg	0.000	0.058	99.587
1A3ai(i)	Liquid	0.002	10.145	0.002	3.121	Gg	0.000	0.049	99.635
2D3b		0.005	10.145	0.003	3.121	Gg	0.000	0.046	99.681
1A4bi	Solid	0.009	10.145	0.001	3.121	Gg	0.000	0.041	99.722
2B10a		0.013	10.145	0.003	3.121	Gg	0.000	0.040	99.762
1A4ai	Biomass	0.001	10.145	0.002	3.121	Gg	0.000	0.038	99.800
1A3biv	Gasoline	0.006	10.145	0.001	3.121	Gg	0.000	0.025	99.825
2B6		0.003	10.145	0.000	3.121	Gg	0.000	0.023	99.848
1A2gviii	Other	0.002	10.145	0.000	3.121	Gg	0.000	0.021	99.869
1A3c	Liquid	0.055	10.145	0.016	3.121	Gg	0.000	0.021	99.890
1A4ci	Solid	0.000	10.145	0.001	3.121	Gg	0.000	0.018	99.908
5C1bv		0.000	10.145	0.001	3.121	Gg	0.000	0.018	99.926
1A2a	Solid	0.002	10.145	0.000	3.121	Gg	0.000	0.016	99.942
1A2e	Solid	0.001	10.145	0.000	3.121	Gg	0.000	0.009	99.951
1A2f	Other		10.145	0.000	3.121	Gg	0.000	0.008	99.959
1A3aii(i)	Liquid	0.001	10.145	0.001	3.121	Gg	0.000	0.007	99.966
1A1a	Biomass	0.005	10.145	0.002	3.121	Gg	0.000	0.007	99.973
5E		0.033	10.145	0.011	3.121	Gg	0.000	0.006	99.979
1A2d	Other	0.002	10.145	0.000	3.121	Gg	0.000	0.005	99.984
1A2c	Biomass	0.001	10.145	0.000	3.121	Gg	0.000	0.003	99.987
1A2b	Solid	0.000	10.145	0.000	3.121	Gg	0.000	0.003	99.990
1A3bii	Gasoline	0.000	10.145	0.000	3.121	Gg	0.000	0.002	99.992
1A2e	Biomass	0.000	10.145	0.000	3.121	Gg	0.000	0.002	99.994
1A4bi	Other	0.000	10.145	0.000	3.121	Gg	0.000	0.001	99.995
1A4ai	Solid	0.000	10.145	0.000	3.121	Gg	0.000	0.001	99.996
2A2		0.000	10.145	0.000	3.121	Gg	0.000	0.001	99.997
2G		0.001	10.145	0.000	3.121	Gg	0.000	0.001	99.998
2A3		0.000	10.145	0.000	3.121	Gg	0.000	0.001	99.999
1A1a	Other	0.000	10.145	0.000	3.121	Gg	0.000	0.001	99.999
2C7a		0.000	10.145	0.000	3.121	Gg	0.000	0.000	100
1A2gviii	Solid	0.000	10.145	0.000	3.121	Gg	0.000	0.000	100
2D3i		0.000	10.145	0.000	3.121	Gg	0.000	0.000	100
1A1b	Solid	0.000	10.145	0.000	3.121	Gg	0.000	0.000	100
2C3		0.000	10.145	0.000	3.121	Gg	0.000	0.000	100
1A2f	Biomass	0.000	10.145	0.000	3.121	Gg	0.000	0.000	100
1A2a	Biomass		10.145	0.000	3.121	Gg	0.000	0.000	100

CO

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3bi	Gasoline	412.338	764.457	16.837	310.209	Gg	0.197	42.805	42.805	Yes
1A4bi	Biomass	124.241	764.457	140.035	310.209	Gg	0.117	25.492	68.297	Yes
1A4bii	Liquid	34.909	764.457	34.885	310.209	Gg	0.027	5.894	74.191	Yes
1A5a	Biomass	0.130	764.457	17.945	310.209	Gg	0.023	5.089	79.280	Yes
1A1a	Biomass	1.545	764.457	13.675	310.209	Gg	0.017	3.711	82.992	Yes
1A3dii	Liquid	22.554	764.457	20.958	310.209	Gg	0.015	3.358	86.350	
1A4aii	Liquid	11.336	764.457	14.955	310.209	Gg	0.014	2.945	89.295	
1A3bii	Gasoline	18.286	764.457	0.296	310.209	Gg	0.009	2.026	91.322	
1A3biii	Diesel oil	15.069	764.457	1.861	310.209	Gg	0.006	1.210	92.532	
1A3bi	Diesel oil	9.979	764.457	0.676	310.209	Gg	0.004	0.960	93.492	
1A2gvii	Liquid	8.424	764.457	6.777	310.209	Gg	0.004	0.956	94.447	
1A2f	Solid	12.941	764.457	1.980	310.209	Gg	0.004	0.931	95.378	
1A2a	Solid	6.922	764.457	0.532	310.209	Gg	0.003	0.648	96.025	
1A2d	Biomass	25.273	764.457	12.394	310.209	Gg	0.003	0.608	96.634	
1A2gviii	Biomass	3.848	764.457	2.576	310.209	Gg	0.001	0.289	96.922	
1A1a	Solid	2.336	764.457	1.784	310.209	Gg	0.001	0.238	97.160	
1A4ci	Biomass	1.515	764.457	1.443	310.209	Gg	0.001	0.236	97.396	
1A3bii	Diesel oil	4.107	764.457	0.936	310.209	Gg	0.001	0.208	97.604	
1A2f	Gaseous	1.888	764.457	0.043	310.209	Gg	0.001	0.206	97.809	
1A2f	Other		764.457	0.665	310.209	Gg	0.001	0.189	97.998	
1A4ai	Biomass	0.455	764.457	0.740	310.209	Gg	0.001	0.158	98.156	
1A3ai(i)	Liquid	0.231	764.457	0.568	310.209	Gg	0.001	0.135	98.291	
1A2f	Liquid	1.281	764.457	0.091	310.209	Gg	0.001	0.122	98.413	
1A2d	Gaseous	1.836	764.457	0.316	310.209	Gg	0.001	0.122	98.535	
1A1b	Liquid	0.406	764.457	0.568	310.209	Gg	0.001	0.115	98.650	
1A3biv	Gasoline	7.906	764.457	2.813	310.209	Gg	0.001	0.113	98.762	
1A2d	Solid	1.345	764.457	0.152	310.209	Gg	0.001	0.112	98.874	
1A2d	Other	0.008	764.457	0.359	310.209	Gg	0.000	0.101	98.975	
1A5a	Liquid	2.031	764.457	1.139	310.209	Gg	0.000	0.089	99.065	
1A4cii	Liquid	18.799	764.457	7.936	310.209	Gg	0.000	0.088	99.153	
1A2f	Biomass	0.000	764.457	0.220	310.209	Gg	0.000	0.062	99.215	
1A4ci	Solid	0.087	764.457	0.236	310.209	Gg	0.000	0.057	99.272	
1A4bi	Liquid	0.785	764.457	0.122	310.209	Gg	0.000	0.056	99.328	
1A2d	Liquid	1.041	764.457	0.231	310.209	Gg	0.000	0.055	99.383	
1A2c	Liquid	0.191	764.457	0.261	310.209	Gg	0.000	0.052	99.435	
1A5a	Gaseous	0.115	764.457	0.213	310.209	Gg	0.000	0.047	99.482	
1A1a	Gaseous	0.779	764.457	0.170	310.209	Gg	0.000	0.042	99.524	
1A1a	Other	0.008	764.457	0.144	310.209	Gg	0.000	0.040	99.564	
1A2e	Biomass	0.079	764.457	0.157	310.209	Gg	0.000	0.036	99.599	
1A2a	Gaseous	0.023	764.457	0.130	310.209	Gg	0.000	0.034	99.634	
1A3bi	Gaseous		764.457	0.102	310.209	Gg	0.000	0.029	99.663	
1A1b	Gaseous	0.167	764.457	0.169	310.209	Gg	0.000	0.029	99.691	
1A2a	Liquid	0.246	764.457	0.006	310.209	Gg	0.000	0.027	99.718	
1A4ciii	Liquid	0.442	764.457	0.263	310.209	Gg	0.000	0.024	99.742	
2C7a		0.223	764.457	0.008	310.209	Gg	0.000	0.023	99.765	

1A2gviii	Other	0.279	764.457	0.032	310.209	Gg	0.000	0.023	99.788
1A2b	Liquid	0.020	764.457	0.083	310.209	Gg	0.000	0.021	99.810
1A1a	Liquid	0.371	764.457	0.219	310.209	Gg	0.000	0.019	99.829
1A2gviii	Solid	0.031	764.457	0.068	310.209	Gg	0.000	0.016	99.845
1A4bi	Solid	0.204	764.457	0.028	310.209	Gg	0.000	0.016	99.860
2C1		0.464	764.457	0.134	310.209	Gg	0.000	0.016	99.876
1A2gviii	Liquid	0.202	764.457	0.034	310.209	Gg	0.000	0.014	99.890
1A2c	Other	0.111	764.457	0.000	310.209	Gg	0.000	0.013	99.902
1A2gviii	Gaseous	0.053	764.457	0.066	310.209	Gg	0.000	0.013	99.915
1A3c	Liquid	0.548	764.457	0.181	310.209	Gg	0.000	0.012	99.927
1A3biv	Diesel oil		764.457	0.041	310.209	Gg	0.000	0.012	99.938
1A4ai	Gaseous	0.031	764.457	0.050	310.209	Gg	0.000	0.010	99.949
1A2b	Solid	0.082	764.457	0.003	310.209	Gg	0.000	0.009	99.957
1A4bi	Gaseous	0.030	764.457	0.039	310.209	Gg	0.000	0.008	99.965
1A2e	Liquid	0.090	764.457	0.013	310.209	Gg	0.000	0.007	99.972
1A1b	Biomass		764.457	0.016	310.209	Gg	0.000	0.005	99.976
1A3biii	Gaseous		764.457	0.013	310.209	Gg	0.000	0.004	99.980
1A4ci	Liquid	0.183	764.457	0.087	310.209	Gg	0.000	0.004	99.984
1A4ai	Solid	0.018	764.457	0.018	310.209	Gg	0.000	0.003	99.987
1A3bii	Gaseous		764.457	0.010	310.209	Gg	0.000	0.003	99.989
1A1b	Solid	0.001	764.457	0.008	310.209	Gg	0.000	0.002	99.992
2G		0.315	764.457	0.122	310.209	Gg	0.000	0.002	99.993
1A2c	Gaseous	0.034	764.457	0.018	310.209	Gg	0.000	0.001	99.994
1A4ci	Gaseous	0.022	764.457	0.005	310.209	Gg	0.000	0.001	99.995
1A4ai	Liquid	0.527	764.457	0.210	310.209	Gg	0.000	0.001	99.996
1A3aii(i)	Liquid	0.631	764.457	0.259	310.209	Gg	0.000	0.001	99.997
1A2c	Biomass	0.021	764.457	0.006	310.209	Gg	0.000	0.001	99.998
1A2e	Gaseous	0.018	764.457	0.005	310.209	Gg	0.000	0.001	99.999
1A2e	Solid	0.195	764.457	0.077	310.209	Gg	0.000	0.001	99.999
1A2b	Gaseous		764.457	0.001	310.209	Gg	0.000	0.000	100
1A4bi	Other	0.001	764.457	0.000	310.209	Gg	0.000	0.000	100
1A1b			764.457	0.000	310.209	Gg	0.000	0.000	100
1A2a	Biomass		764.457	0.000	310.209	Gg	0.000	0.000	100
1A3ei	Gaseous	0.001	764.457	0.000	310.209	Gg	0.000	0.000	100

## Pb

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3bi	Gasoline	166.003	321.435	0.002	12.516	Mg	0.020	30.405	30.405	Yes
1A1b	Liquid	2.049	321.435	3.121	12.516	Mg	0.009	14.310	44.715	Yes
2C7c		80.081	321.435	0.288	12.516	Mg	0.009	13.316	58.031	Yes
1A5a	Biomass	0.015	321.435	1.615	12.516	Mg	0.005	7.597	65.627	Yes
1A2d	Biomass	4.479	321.435	1.739	12.516	Mg	0.005	7.361	72.989	Yes
2G		0.310	321.435	1.061	12.516	Mg	0.003	4.937	77.925	Yes
2C1		34.463	321.435	0.425	12.516	Mg	0.003	4.314	82.239	Yes

1A1a	Biomass	0.179	321.435	0.700	12.516	Mg	0.002	3.261	85.500
1A1a	Solid	7.042	321.435	0.947	12.516	Mg	0.002	3.168	88.668
1A2f	Solid	2.811	321.435	0.612	12.516	Mg	0.002	2.364	91.032
1A4bi	Biomass	0.413	321.435	0.488	12.516	Mg	0.001	2.221	93.254
1A3bii	Gasoline	6.400	321.435	0.000	12.516	Mg	0.001	1.173	94.426
1A4ci	Solid	0.103	321.435	0.190	12.516	Mg	0.001	0.876	95.303
1A3bvi		7.220	321.435	0.461	12.516	Mg	0.001	0.846	96.149
1A1a	Other	0.001	321.435	0.127	12.516	Mg	0.000	0.596	96.745
1A2gviii	Biomass	0.319	321.435	0.095	12.516	Mg	0.000	0.388	97.132
1A2d	Other	0.001	321.435	0.080	12.516	Mg	0.000	0.378	97.511
1A4ci	Biomass	0.065	321.435	0.062	12.516	Mg	0.000	0.281	97.792
1A2d	Solid	1.524	321.435	0.004	12.516	Mg	0.000	0.260	98.052
1A3biv	Gasoline	1.300	321.435	0.000	12.516	Mg	0.000	0.238	98.290
1A3aii(i)	Liquid	0.297	321.435	0.045	12.516	Mg	0.000	0.156	98.446
1A4ai	Biomass	0.020	321.435	0.032	12.516	Mg	0.000	0.148	98.594
1A2e	Solid	1.551	321.435	0.092	12.516	Mg	0.000	0.147	98.741
1A5a	Liquid	0.211	321.435	0.038	12.516	Mg	0.000	0.140	98.881
1A4ai	Liquid	0.261	321.435	0.038	12.516	Mg	0.000	0.130	99.010
2C2		0.001	321.435	0.026	12.516	Mg	0.000	0.123	99.133
1A2c	Liquid	0.082	321.435	0.025	12.516	Mg	0.000	0.102	99.235
1A2f	Biomass	0.000	321.435	0.019	12.516	Mg	0.000	0.088	99.323
1A4ai	Solid	0.020	321.435	0.017	12.516	Mg	0.000	0.077	99.400
2C6		0.000	321.435	0.015	12.516	Mg	0.000	0.069	99.470
1A1a	Liquid	0.319	321.435	0.026	12.516	Mg	0.000	0.065	99.534
1A2f	Liquid	0.062	321.435	0.016	12.516	Mg	0.000	0.062	99.596
1B1b		0.022	321.435	0.013	12.516	Mg	0.000	0.055	99.651
1A2d	Liquid	0.195	321.435	0.019	12.516	Mg	0.000	0.054	99.705
2C7a		0.374	321.435	0.003	12.516	Mg	0.000	0.053	99.758
1A2gviii	Other	0.049	321.435	0.011	12.516	Mg	0.000	0.042	99.800
1A3dii	Liquid	0.015	321.435	0.009	12.516	Mg	0.000	0.041	99.841
1A4bi	Solid	0.403	321.435	0.024	12.516	Mg	0.000	0.038	99.879
1A2e	Biomass	0.008	321.435	0.005	12.516	Mg	0.000	0.022	99.901
1A4ciii	Liquid	0.007	321.435	0.004	12.516	Mg	0.000	0.018	99.920
1A2gviii	Solid	0.143	321.435	0.002	12.516	Mg	0.000	0.016	99.936
1A1b	Solid	0.048	321.435	0.004	12.516	Mg	0.000	0.011	99.947
2C3		0.066	321.435	0.001	12.516	Mg	0.000	0.010	99.956
1A4bi	Liquid	0.046	321.435	0.000	12.516	Mg	0.000	0.007	99.964
1A4ci	Liquid	0.081	321.435	0.002	12.516	Mg	0.000	0.006	99.969
5C1bv		0.000	321.435	0.001	12.516	Mg	0.000	0.006	99.975
1A2gviii	Liquid	0.113	321.435	0.003	12.516	Mg	0.000	0.005	99.980
2B10a		0.001	321.435	0.001	12.516	Mg	0.000	0.005	99.984
1A2e	Liquid	0.083	321.435	0.004	12.516	Mg	0.000	0.004	99.988
1A3biii	Diesel oil	0.000	321.435	0.001	12.516	Mg	0.000	0.003	99.991
1A2a	Biomass		321.435	0.001	12.516	Mg	0.000	0.003	99.994
1A2b	Liquid	0.010	321.435	0.001	12.516	Mg	0.000	0.002	99.995
5E		0.001	321.435	0.000	12.516	Mg	0.000	0.002	99.997
1A3bi	Diesel oil	0.000	321.435	0.000	12.516	Mg	0.000	0.001	99.998
1A3bii	Diesel oil	0.000	321.435	0.000	12.516	Mg	0.000	0.001	99.999

1A2c	Biomass	0.003	321.435	0.000	12.516	Mg	0.000	0.001	99.999
1A2f	Other		321.435	0.000	12.516	Mg	0.000	0.001	100
1A3biv	Diesel oil		321.435	0.000	12.516	Mg	0.000	0.000	100

## Cd

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C7c		4.203	6.686	0.038	0.779	Mg	0.068	37.138	37.138	Yes
1A5a	Biomass	0.002	6.686	0.179	0.779	Mg	0.027	14.735	51.873	Yes
1A4bi	Biomass	0.124	6.686	0.146	0.779	Mg	0.02	10.852	62.725	Yes
2C6		0.850	6.686	0.010	0.779	Mg	0.013	7.337	70.062	Yes
1A1a	Biomass	0.019	6.686	0.088	0.779	Mg	0.013	7.045	77.107	Yes
1A2d	Biomass	0.317	6.686	0.115	0.779	Mg	0.012	6.431	83.539	Yes
1A1b	Liquid	0.047	6.686	0.071	0.779	Mg	0.010	5.405	88.944	
2C1		0.390	6.686	0.006	0.779	Mg	0.006	3.207	92.151	
1A4ci	Biomass	0.020	6.686	0.018	0.779	Mg	0.002	1.327	93.479	
1A1a	Other	0.000	6.686	0.013	0.779	Mg	0.002	1.067	94.545	
1A4ai	Biomass	0.006	6.686	0.010	0.779	Mg	0.001	0.740	95.286	
2G		0.028	6.686	0.012	0.779	Mg	0.001	0.696	95.982	
1A2gviii	Biomass	0.036	6.686	0.011	0.779	Mg	0.001	0.600	96.582	
1A2f	Solid	0.068	6.686	0.014	0.779	Mg	0.001	0.520	97.103	
1A2d	Solid	0.032	6.686	0.000	0.779	Mg	0.001	0.305	97.407	
1A2gvii	Liquid	0.003	6.686	0.004	0.779	Mg	0.001	0.275	97.682	
1A1a	Solid	0.178	6.686	0.018	0.779	Mg	0.000	0.259	97.942	
1A2d	Other	0.000	6.686	0.003	0.779	Mg	0.000	0.245	98.187	
1A4ci	Solid	0.002	6.686	0.003	0.779	Mg	0.000	0.240	98.426	
2C3		0.023	6.686	0.000	0.779	Mg	0.000	0.214	98.640	
1A2e	Solid	0.034	6.686	0.002	0.779	Mg	0.000	0.197	98.837	
1A4cii	Liquid	0.003	6.686	0.002	0.779	Mg	0.000	0.163	99.000	
1A2f	Biomass	0.000	6.686	0.002	0.779	Mg	0.000	0.153	99.153	
1A2gviii	Other	0.028	6.686	0.002	0.779	Mg	0.000	0.127	99.280	
1A3bvi		0.002	6.686	0.002	0.779	Mg	0.000	0.127	99.407	
1A4aii	Liquid	0.001	6.686	0.001	0.779	Mg	0.000	0.065	99.472	
1A4bi	Solid	0.008	6.686	0.000	0.779	Mg	0.000	0.049	99.521	
1A3dii	Liquid	0.001	6.686	0.001	0.779	Mg	0.000	0.047	99.568	
1A4bii	Liquid	0.000	6.686	0.001	0.779	Mg	0.000	0.042	99.610	
5E		0.002	6.686	0.001	0.779	Mg	0.000	0.042	99.653	
1A2f	Liquid	0.001	6.686	0.001	0.779	Mg	0.000	0.039	99.692	
1A2e	Biomass	0.001	6.686	0.001	0.779	Mg	0.000	0.037	99.729	
1A2gviii	Solid	0.003	6.686	0.000	0.779	Mg	0.000	0.028	99.757	
1A2d	Liquid	0.003	6.686	0.001	0.779	Mg	0.000	0.024	99.781	
1A4ciii	Liquid	0.001	6.686	0.000	0.779	Mg	0.000	0.021	99.802	
1A4ai	Solid	0.000	6.686	0.000	0.779	Mg	0.000	0.020	99.822	
1A5a	Liquid	0.003	6.686	0.001	0.779	Mg	0.000	0.019	99.842	
1A1a	Liquid	0.005	6.686	0.000	0.779	Mg	0.000	0.019	99.861	

5C1bv		0.000	6.686	0.000	0.779	Mg	0.000	0.016	99.877
1A3bi	Gasoline	0.000	6.686	0.000	0.779	Mg	0.000	0.015	99.892
1A2c	Liquid	0.001	6.686	0.000	0.779	Mg	0.000	0.015	99.907
1B1b		0.000	6.686	0.000	0.779	Mg	0.000	0.014	99.921
2C2		0.003	6.686	0.001	0.779	Mg	0.000	0.012	99.933
1A3c	Liquid	0.001	6.686	0.000	0.779	Mg	0.000	0.010	99.943
1A2gviii	Liquid	0.001	6.686	0.000	0.779	Mg	0.000	0.009	99.952
1A4ci	Liquid	0.001	6.686	0.000	0.779	Mg	0.000	0.007	99.959
1A4ai	Liquid	0.003	6.686	0.000	0.779	Mg	0.000	0.007	99.967
1A2e	Liquid	0.001	6.686	0.000	0.779	Mg	0.000	0.006	99.972
1A3biii	Diesel oil	0.000	6.686	0.000	0.779	Mg	0.000	0.005	99.978
1A4bi	Liquid	0.001	6.686	0.000	0.779	Mg	0.000	0.005	99.983
1A2a	Biomass		6.686	0.000	0.779	Mg	0.000	0.005	99.988
1A2f	Other		6.686	0.000	0.779	Mg	0.000	0.003	99.991
1A1b	Solid	0.001	6.686	0.000	0.779	Mg	0.000	0.003	99.994
1A3bi	Diesel oil	0.000	6.686	0.000	0.779	Mg	0.000	0.002	99.996
2C7a		0.000	6.686	0.000	0.779	Mg	0.000	0.001	99.997
1A3bii	Diesel oil	0.000	6.686	0.000	0.779	Mg	0.000	0.001	99.998
1A2c	Biomass	0.000	6.686	0.000	0.779	Mg	0.000	0.001	99.999
1A3biv	Gasoline	0.000	6.686	0.000	0.779	Mg	0.000	0.001	99.999
1A2b	Liquid	0.000	6.686	0.000	0.779	Mg	0.000	0.000	100
1A3bii	Gasoline	0.000	6.686	0.000	0.779	Mg	0.000	0.000	100
1A3biv	Diesel oil		6.686	0.000	0.779	Mg	0.000	0.000	100

## Hg

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2B10a		0.369	1.087	0.035	0.505	Mg	0.126	24.895	24.895	Yes
2C1		0.005	1.087	0.085	0.505	Mg	0.076	14.980	39.875	Yes
1A2gviii	Other	0.171	1.087	0.008	0.505	Mg	0.066	13.028	52.903	Yes
1A1a	Biomass	0.004	1.087	0.051	0.505	Mg	0.045	8.882	61.784	Yes
1A2d	Biomass	0.089	1.087	0.075	0.505	Mg	0.031	6.188	67.972	Yes
5C1bv		0.006	1.087	0.027	0.505	Mg	0.023	4.464	72.436	Yes
1A1a	Solid	0.234	1.087	0.085	0.505	Mg	0.022	4.399	76.835	Yes
1A5a	Biomass	0.000	1.087	0.018	0.505	Mg	0.016	3.256	80.091	Yes
1A4bi	Biomass	0.021	1.087	0.024	0.505	Mg	0.014	2.700	82.791	
1A2d	Solid	0.034	1.087	0.003	0.505	Mg	0.012	2.382	85.174	
1A1b	Liquid	0.010	1.087	0.015	0.505	Mg	0.009	1.879	87.052	
2C7c		0.028	1.087	0.004	0.505	Mg	0.009	1.733	88.785	
1A2a	Solid	0.017	1.087	0.000	0.505	Mg	0.007	1.388	90.173	
1A2f	Solid	0.017	1.087	0.015	0.505	Mg	0.006	1.239	91.413	
1A2f	Liquid	0.000	1.087	0.006	0.505	Mg	0.005	1.055	92.468	
1A3biii	Diesel oil	0.005	1.087	0.008	0.505	Mg	0.005	0.944	93.412	
1A1a	Other	0.000	1.087	0.005	0.505	Mg	0.005	0.933	94.346	
2C7a		0.007	1.087	0.000	0.505	Mg	0.003	0.550	94.895	

2C6			1.087	0.003	0.505	Mg	0.003	0.525	95.420
1A2e	Solid	0.010	1.087	0.002	0.505	Mg	0.002	0.494	95.914
1A3bi	Gasoline	0.016	1.087	0.01	0.505	Mg	0.002	0.483	96.397
1A4ci	Solid	0.001	1.087	0.003	0.505	Mg	0.002	0.432	96.830
1A3bi	Diesel oil	0.002	1.087	0.003	0.505	Mg	0.002	0.429	97.259
1A2f	Other		1.087	0.002	0.505	Mg	0.002	0.405	97.663
1A4ci	Biomass	0.003	1.087	0.003	0.505	Mg	0.001	0.284	97.947
2C2		0.000	1.087	0.002	0.505	Mg	0.001	0.278	98.225
1A2gviii	Liquid	0.000	1.087	0.001	0.505	Mg	0.001	0.230	98.456
1A4ai	Biomass	0.001	1.087	0.002	0.505	Mg	0.001	0.212	98.668
1A4bi	Solid	0.003	1.087	0.000	0.505	Mg	0.001	0.193	98.861
1A2gviii	Biomass	0.005	1.087	0.003	0.505	Mg	0.001	0.181	99.042
1A3bii	Diesel oil	0.001	1.087	0.001	0.505	Mg	0.001	0.158	99.200
1A3dii	Liquid	0.003	1.087	0.002	0.505	Mg	0.001	0.157	99.357
1A2d	Other	0.000	1.087	0.001	0.505	Mg	0.001	0.117	99.474
1A2gviii	Solid	0.001	1.087	0.001	0.505	Mg	0.000	0.083	99.557
1A2d	Liquid	0.000	1.087	0.001	0.505	Mg	0.000	0.065	99.622
5E		0.002	1.087	0.001	0.505	Mg	0.000	0.046	99.668
1A3biv	Gasoline	0.000	1.087	0.000	0.505	Mg	0.000	0.046	99.713
1A3bii	Gasoline	0.001	1.087	0.000	0.505	Mg	0.000	0.043	99.756
1A4ciii	Liquid	0.002	1.087	0.001	0.505	Mg	0.000	0.034	99.790
1A1a	Liquid	0.001	1.087	0.000	0.505	Mg	0.000	0.034	99.824
1A2e	Biomass	0.000	1.087	0.000	0.505	Mg	0.000	0.029	99.853
1A4ai	Solid	0.000	1.087	0.000	0.505	Mg	0.000	0.021	99.874
1A2f	Biomass	0.000	1.087	0.000	0.505	Mg	0.000	0.02	99.894
1A4ai	Liquid	0.000	1.087	0.000	0.505	Mg	0.000	0.018	99.913
1A2c	Biomass	0.000	1.087	0.000	0.505	Mg	0.000	0.017	99.929
1A5a	Liquid	0.000	1.087	0.000	0.505	Mg	0.000	0.015	99.945
1A1b	Solid	0.000	1.087	0.000	0.505	Mg	0.000	0.015	99.960
2G		0.000	1.087	0.000	0.505	Mg	0.000	0.012	99.972
1A2e	Liquid	0.000	1.087	0.000	0.505	Mg	0.000	0.008	99.980
1A4ci	Liquid	0.000	1.087	0.000	0.505	Mg	0.000	0.008	99.988
1A4bi	Liquid	0.000	1.087	0.000	0.505	Mg	0.000	0.005	99.993
1A2c	Liquid	0.000	1.087	0.000	0.505	Mg	0.000	0.003	99.996
1A3biv	Diesel oil		1.087	0.000	0.505	Mg	0.000	0.001	99.997
1A2a	Biomass		1.087	0.000	0.505	Mg	0.000	0.001	99.999
1B1b		0.000	1.087	0.000	0.505	Mg	0.000	0.001	99.999
1A2b	Liquid	0.000	1.087	0.000	0.505	Mg	0.000	0.001	100

As

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C7c		28.000	34.817	0.143	1.920	Mg	0.04	47.328	47.328	Yes
1A1b	Liquid	0.336	34.817	0.514	1.920	Mg	0.014	16.723	64.051	Yes
1A1a	Solid	2.246	34.817	0.492	1.920	Mg	0.011	12.450	76.501	Yes

2C7a		0.113	34.817	0.119	1.920	Mg	0.003	3.816	80.317	Yes
1A2d	Biomass	0.160	34.817	0.098	1.920	Mg	0.003	3.021	83.338	
1A4ci	Solid	0.039	34.817	0.091	1.920	Mg	0.003	3.005	86.344	
1A2f	Solid	0.491	34.817	0.099	1.920	Mg	0.002	2.421	88.764	
2C6		1.700	34.817	0.042	1.920	Mg	0.001	1.733	90.498	
1A4bi	Biomass	0.041	34.817	0.049	1.920	Mg	0.001	1.572	92.070	
1A3bvi		0.036	34.817	0.041	1.920	Mg	0.001	1.317	93.387	
1A5a	Biomass	0.000	34.817	0.036	1.920	Mg	0.001	1.212	94.599	
2C1		0.411	34.817	0.058	1.920	Mg	0.001	1.188	95.786	
1A1a	Biomass	0.004	34.817	0.030	1.920	Mg	0.001	0.998	96.784	
1A2e	Solid	0.307	34.817	0.041	1.920	Mg	0.001	0.825	97.610	
1A2d	Solid	0.468	34.817	0.002	1.920	Mg	0.001	0.794	98.403	
1A4ai	Solid	0.010	34.817	0.008	1.920	Mg	0.000	0.258	98.662	
1A4bi	Solid	0.101	34.817	0.011	1.920	Mg	0.000	0.195	98.857	
1A4ci	Biomass	0.007	34.817	0.006	1.920	Mg	0.000	0.195	99.052	
1A1a	Other	0.000	34.817	0.004	1.920	Mg	0.000	0.119	99.170	
1A4ai	Biomass	0.002	34.817	0.003	1.920	Mg	0.000	0.106	99.276	
1A5a	Liquid	0.017	34.817	0.003	1.920	Mg	0.000	0.079	99.355	
2C2		0.002	34.817	0.002	1.920	Mg	0.000	0.067	99.422	
1A2gviii	Biomass	0.007	34.817	0.002	1.920	Mg	0.000	0.063	99.486	
1A4ai	Liquid	0.021	34.817	0.003	1.920	Mg	0.000	0.063	99.549	
1A2c	Liquid	0.007	34.817	0.002	1.920	Mg	0.000	0.055	99.604	
1A2d	Liquid	0.018	34.817	0.003	1.920	Mg	0.000	0.051	99.655	
1B1b		0.004	34.817	0.001	1.920	Mg	0.000	0.043	99.697	
1A3dii	Liquid	0.028	34.817	0.003	1.920	Mg	0.000	0.042	99.740	
1A4ciii	Liquid	0.002	34.817	0.001	1.920	Mg	0.000	0.039	99.779	
5E		0.003	34.817	0.001	1.920	Mg	0.000	0.035	99.814	
1A2gviii	Other	0.001	34.817	0.001	1.920	Mg	0.000	0.034	99.847	
1A2d	Other	0.000	34.817	0.001	1.920	Mg	0.000	0.030	99.877	
2G		0.001	34.817	0.001	1.920	Mg	0.000	0.020	99.897	
5C1bv		0.000	34.817	0.001	1.920	Mg	0.000	0.018	99.915	
1A1a	Liquid	0.029	34.817	0.002	1.920	Mg	0.000	0.012	99.927	
1A2f	Liquid	0.005	34.817	0.001	1.920	Mg	0.000	0.012	99.938	
1A3bi	Gasoline	0.001	34.817	0.000	1.920	Mg	0.000	0.011	99.949	
1A1b	Solid	0.008	34.817	0.001	1.920	Mg	0.000	0.009	99.958	
1A4ci	Liquid	0.006	34.817	0.000	1.920	Mg	0.000	0.007	99.965	
1A4bi	Liquid	0.004	34.817	0.000	1.920	Mg	0.000	0.006	99.971	
1A2e	Biomass	0.000	34.817	0.000	1.920	Mg	0.000	0.005	99.976	
1A3biii	Diesel oil	0.000	34.817	0.000	1.920	Mg	0.000	0.005	99.980	
1A2gviii	Liquid	0.009	34.817	0.000	1.920	Mg	0.000	0.005	99.985	
1A2e	Liquid	0.007	34.817	0.000	1.920	Mg	0.000	0.003	99.988	
1A2gviii	Solid	0.024	34.817	0.001	1.920	Mg	0.000	0.003	99.991	
2C3		0.008	34.817	0.000	1.920	Mg	0.000	0.003	99.994	
1A3bi	Diesel oil	0.000	34.817	0.000	1.920	Mg	0.000	0.002	99.996	
1A2f	Biomass	0.000	34.817	0.000	1.920	Mg	0.000	0.001	99.997	
1A3bii	Diesel oil	0.000	34.817	0.000	1.920	Mg	0.000	0.001	99.998	
1A2b	Liquid	0.001	34.817	0.000	1.920	Mg	0.000	0.001	99.999	
1A2a	Biomass		34.817	0.000	1.920	Mg	0.000	0.000	99.999	

1A3biv	Gasoline	0.000	34.817	0.000	1.920	Mg	0.000	0.000	100
1A2f	Other		34.817	0.000	1.920	Mg	0.000	0.000	100
1A2c	Biomass	0.000	34.817	0.000	1.920	Mg	0.000	0.000	100
1A3biv	Diesel oil		34.817	0.000	1.920	Mg	0.000	0.000	100
1A3bii	Gasoline	0.000	34.817	0.000	1.920	Mg	0.000	0.000	100

## Cr

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C1		19.554	47.670	2.069	14.905	Mg	0.085	25.103	25.103	Yes
1A1b	Liquid	2.574	47.670	3.950	14.905	Mg	0.066	19.518	44.620	Yes
1A1a	Solid	7.840	47.670	0.831	14.905	Mg	0.034	10.054	54.674	Yes
1A4bi	Biomass	1.445	47.670	1.709	14.905	Mg	0.026	7.799	62.473	Yes
1A5a	Biomass	0.012	47.670	1.256	14.905	Mg	0.026	7.772	70.244	Yes
1A3bvi		1.143	47.670	1.284	14.905	Mg	0.019	5.748	75.992	Yes
2C2		2.000	47.670	1.203	14.905	Mg	0.012	3.584	79.577	Yes
1A2d	Solid	1.674	47.670	0.002	14.905	Mg	0.011	3.235	82.812	Yes
1A2e	Solid	1.889	47.670	0.080	14.905	Mg	0.011	3.166	85.978	
1A2b	Solid	1.854	47.670	0.122	14.905	Mg	0.010	2.837	88.816	
1A1a	Biomass	0.117	47.670	0.485	14.905	Mg	0.009	2.783	91.599	
1A2f	Solid	3.365	47.670	0.764	14.905	Mg	0.006	1.786	93.385	
2C7c		0.520	47.670	0.006	14.905	Mg	0.003	0.970	94.355	
1A4ci	Biomass	0.228	47.670	0.214	14.905	Mg	0.003	0.887	95.242	
1A4ci	Solid	0.100	47.670	0.157	14.905	Mg	0.003	0.778	96.020	
1A4bi	Solid	0.461	47.670	0.020	14.905	Mg	0.003	0.773	96.793	
1A4ai	Biomass	0.068	47.670	0.113	14.905	Mg	0.002	0.570	97.363	
1A1a	Other	0.001	47.670	0.086	14.905	Mg	0.002	0.533	97.896	
1A2gviii	Solid	0.179	47.670	0.004	14.905	Mg	0.001	0.322	98.217	
1A2gviii	Other	0.024	47.670	0.057	14.905	Mg	0.001	0.309	98.526	
1A2d	Biomass	0.558	47.670	0.129	14.905	Mg	0.001	0.282	98.808	
2C7a		0.145	47.670	0.000	14.905	Mg	0.001	0.279	99.087	
1A2gviii	Biomass	0.817	47.670	0.223	14.905	Mg	0.001	0.201	99.288	
1A2gvii	Liquid	0.015	47.670	0.018	14.905	Mg	0.000	0.086	99.374	
1A1b	Solid	0.060	47.670	0.005	14.905	Mg	0.000	0.084	99.458	
1A3biii	Diesel oil	0.008	47.670	0.012	14.905	Mg	0.000	0.060	99.517	
1A4ai	Solid	0.017	47.670	0.014	14.905	Mg	0.000	0.055	99.572	
1B1b		0.003	47.670	0.009	14.905	Mg	0.000	0.052	99.625	
1A4cii	Liquid	0.015	47.670	0.012	14.905	Mg	0.000	0.044	99.668	
1A2d	Other	0.001	47.670	0.007	14.905	Mg	0.000	0.044	99.712	
2G		0.006	47.670	0.007	14.905	Mg	0.000	0.034	99.746	
1A2gviii	Liquid	0.016	47.670	0.000	14.905	Mg	0.000	0.030	99.776	
1A3bi	Diesel oil	0.003	47.670	0.005	14.905	Mg	0.000	0.026	99.802	
1A3bi	Gasoline	0.011	47.670	0.007	14.905	Mg	0.000	0.023	99.824	
1A2d	Liquid	0.009	47.670	0.006	14.905	Mg	0.000	0.022	99.846	
1A1a	Liquid	0.015	47.670	0.001	14.905	Mg	0.000	0.021	99.867	

1A3dii	Liquid	0.030	47.670	0.006	14.905	Mg	0.000	0.020	99.887
1A4aii	Liquid	0.007	47.670	0.005	14.905	Mg	0.000	0.017	99.904
1A2f	Biomass	0.000	47.670	0.002	14.905	Mg	0.000	0.015	99.919
1A4bii	Liquid	0.002	47.670	0.003	14.905	Mg	0.000	0.013	99.932
1A4ai	Liquid	0.010	47.670	0.002	14.905	Mg	0.000	0.011	99.943
1A3bii	Diesel oil	0.002	47.670	0.002	14.905	Mg	0.000	0.011	99.953
1A2e	Biomass	0.006	47.670	0.003	14.905	Mg	0.000	0.009	99.962
1A4ci	Liquid	0.003	47.670	0.000	14.905	Mg	0.000	0.006	99.968
1A2e	Liquid	0.003	47.670	0.000	14.905	Mg	0.000	0.006	99.973
1A5a	Liquid	0.009	47.670	0.002	14.905	Mg	0.000	0.005	99.978
1A4ciii	Liquid	0.003	47.670	0.002	14.905	Mg	0.000	0.005	99.983
1A4bi	Liquid	0.002	47.670	0.000	14.905	Mg	0.000	0.004	99.987
5C1bv		0.000	47.670	0.001	14.905	Mg	0.000	0.003	99.990
1A2f	Liquid	0.002	47.670	0.001	14.905	Mg	0.000	0.003	99.992
1A2a	Biomass		47.670	0.000	14.905	Mg	0.000	0.003	99.995
1A2f	Other		47.670	0.000	14.905	Mg	0.000	0.002	99.996
1A3biv	Gasoline	0.000	47.670	0.000	14.905	Mg	0.000	0.001	99.998
5E		0.003	47.670	0.001	14.905	Mg	0.000	0.001	99.998
1A3bii	Gasoline	0.000	47.670	0.000	14.905	Mg	0.000	0.001	99.999
1A2c	Biomass	0.000	47.670	0.000	14.905	Mg	0.000	0.000	99.999
1A2c	Liquid	0.003	47.670	0.001	14.905	Mg	0.000	0.000	100
1A3c	Liquid	0.003	47.670	0.001	14.905	Mg	0.000	0.000	100
1A2b	Liquid	0.001	47.670	0.000	14.905	Mg	0.000	0.000	100
1A3biv	Diesel oil		47.670	0.000	14.905	Mg	0.000	0.000	100

## Cu

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C7c		80.257	156.894	0.349	38.391	Mg	0.123	42.413	42.413	Yes
1A3bvi		49.238	156.894	28.906	38.391	Mg	0.107	37.066	79.479	Yes
1A5a	Biomass	0.017	156.894	1.830	38.391	Mg	0.012	4.015	83.494	Yes
2C7a		4.803	156.894	0.002	38.391	Mg	0.007	2.580	86.074	
1A1b	Liquid	0.902	156.894	1.383	38.391	Mg	0.007	2.556	88.630	
2C1		5.540	156.894	0.365	38.391	Mg	0.006	2.179	90.809	
1A1a	Biomass	0.174	156.894	0.919	38.391	Mg	0.006	1.928	92.737	
1A2gvii	Liquid	0.503	156.894	0.627	38.391	Mg	0.003	1.109	93.845	
1A1a	Solid	7.133	156.894	1.241	38.391	Mg	0.003	1.108	94.953	
1A2d	Solid	1.294	156.894	0.005	38.391	Mg	0.002	0.686	95.640	
1A4cii	Liquid	0.499	156.894	0.396	38.391	Mg	0.002	0.601	96.241	
1A4bi	Biomass	0.248	156.894	0.293	38.391	Mg	0.001	0.511	96.752	
1A4ci	Solid	0.104	156.894	0.246	38.391	Mg	0.001	0.485	97.237	
2G		0.203	156.894	0.221	38.391	Mg	0.001	0.376	97.613	
1A1a	Other	0.001	156.894	0.165	38.391	Mg	0.001	0.361	97.974	
1A2d	Other	0.001	156.894	0.141	38.391	Mg	0.001	0.310	98.284	
1A4aii	Liquid	0.227	156.894	0.162	38.391	Mg	0.001	0.233	98.517	

1A2e	Solid	0.829	156.894	0.109	38.391	Mg	0.001	0.206	98.723
1A4bii	Liquid	0.075	156.894	0.096	38.391	Mg	0.000	0.171	98.894
1A2d	Liquid	0.022	156.894	0.081	38.391	Mg	0.000	0.166	99.060
1A2gviii	Biomass	0.699	156.894	0.111	38.391	Mg	0.000	0.132	99.193
2B10a		0.270	156.894	0.008	38.391	Mg	0.000	0.128	99.320
1A2f	Solid	1.280	156.894	0.268	38.391	Mg	0.000	0.099	99.419
1A4bi	Solid	0.273	156.894	0.031	38.391	Mg	0.000	0.079	99.498
1A4ci	Biomass	0.039	156.894	0.038	38.391	Mg	0.000	0.063	99.561
2C2		0.003	156.894	0.025	38.391	Mg	0.000	0.054	99.615
1A2d	Biomass	0.813	156.894	0.176	38.391	Mg	0.000	0.051	99.666
1A4ai	Biomass	0.013	156.894	0.019	38.391	Mg	0.000	0.036	99.702
1A4ai	Solid	0.026	156.894	0.022	38.391	Mg	0.000	0.035	99.737
1A2gviii	Other	0.037	156.894	0.025	38.391	Mg	0.000	0.034	99.771
1A2gviii	Solid	0.065	156.894	0.003	38.391	Mg	0.000	0.029	99.800
2C6			156.894	0.013	38.391	Mg	0.000	0.029	99.829
1A3dii	Liquid	0.100	156.894	0.014	38.391	Mg	0.000	0.023	99.852
1B1b		0.004	156.894	0.010	38.391	Mg	0.000	0.020	99.872
1A3c	Liquid	0.103	156.894	0.033	38.391	Mg	0.000	0.017	99.889
1A3biii	Diesel oil	0.006	156.894	0.008	38.391	Mg	0.000	0.015	99.904
1A4ciii	Liquid	0.049	156.894	0.006	38.391	Mg	0.000	0.012	99.916
1A1a	Liquid	0.034	156.894	0.003	38.391	Mg	0.000	0.012	99.928
1A2gviii	Liquid	0.022	156.894	0.000	38.391	Mg	0.000	0.011	99.939
1A2e	Biomass	0.009	156.894	0.006	38.391	Mg	0.000	0.008	99.947
1A1b	Solid	0.021	156.894	0.002	38.391	Mg	0.000	0.007	99.954
1A3bi	Gasoline	0.008	156.894	0.005	38.391	Mg	0.000	0.007	99.961
1A3bi	Diesel oil	0.002	156.894	0.003	38.391	Mg	0.000	0.006	99.967
1A4ai	Liquid	0.026	156.894	0.004	38.391	Mg	0.000	0.006	99.973
1A2f	Biomass	0.000	156.894	0.002	38.391	Mg	0.000	0.005	99.978
1A4ci	Liquid	0.008	156.894	0.000	38.391	Mg	0.000	0.004	99.982
1A2e	Liquid	0.008	156.894	0.000	38.391	Mg	0.000	0.004	99.986
1A3bii	Diesel oil	0.001	156.894	0.002	38.391	Mg	0.000	0.003	99.989
1A4bi	Liquid	0.005	156.894	0.000	38.391	Mg	0.000	0.002	99.991
5E		0.008	156.894	0.003	38.391	Mg	0.000	0.002	99.993
1A2f	Other		156.894	0.001	38.391	Mg	0.000	0.001	99.994
1A2a	Biomass		156.894	0.001	38.391	Mg	0.000	0.001	99.996
1A2f	Liquid	0.006	156.894	0.002	38.391	Mg	0.000	0.001	99.997
1A2c	Liquid	0.008	156.894	0.002	38.391	Mg	0.000	0.001	99.998
5C1bv		0.000	156.894	0.000	38.391	Mg	0.000	0.001	99.999
1A5a	Liquid	0.029	156.894	0.007	38.391	Mg	0.000	0.000	99.999
1A3biv	Gasoline	0.000	156.894	0.000	38.391	Mg	0.000	0.000	100
1A2c	Biomass	0.001	156.894	0.000	38.391	Mg	0.000	0.000	100
1A3bii	Gasoline	0.000	156.894	0.000	38.391	Mg	0.000	0.000	100
1A2b	Liquid	0.001	156.894	0.000	38.391	Mg	0.000	0.000	100
1A3biv	Diesel oil		156.894	0.000	38.391	Mg	0.000	0.000	100

Ni

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C7c		31.000	78.439	0.218	9.917	Mg	0.047	34.571	34.571	Yes
1A4bi	Biomass	1.239	78.439	1.465	9.917	Mg	0.017	12.218	46.790	Yes
1A5a	Biomass	0.010	78.439	1.077	9.917	Mg	0.014	10.046	56.836	Yes
1A1a	Biomass	0.101	78.439	0.505	9.917	Mg	0.006	4.601	61.436	Yes
2C7b		5.000	78.439	1.088	9.917	Mg	0.006	4.258	65.695	Yes
2C1		2.002	78.439	0.637	9.917	Mg	0.005	3.582	69.277	Yes
1A2f	Solid	2.771	78.439	0.608	9.917	Mg	0.003	2.404	71.680	Yes
1A1b	Liquid	1.875	78.439	0.007	9.917	Mg	0.003	2.150	73.831	Yes
1A2c	Liquid	0.833	78.439	0.298	9.917	Mg	0.002	1.801	75.632	Yes
1A3bvi		0.164	78.439	0.184	9.917	Mg	0.002	1.528	77.160	Yes
1A4ci	Biomass	0.195	78.439	0.184	9.917	Mg	0.002	1.484	78.644	Yes
1A2d	Solid	1.448	78.439	0.026	9.917	Mg	0.002	1.469	80.113	Yes
1A1a	Liquid	3.688	78.439	0.314	9.917	Mg	0.002	1.423	81.536	
1A4ci	Solid	0.091	78.439	0.157	9.917	Mg	0.002	1.356	82.892	
1A2b	Solid	1.124	78.439	0.005	9.917	Mg	0.002	1.277	84.168	
1A2gviii	Liquid	1.361	78.439	0.040	9.917	Mg	0.002	1.233	85.402	
1A5a	Liquid	2.531	78.439	0.450	9.917	Mg	0.002	1.219	86.620	
2B10a		1.052	78.439	0.013	9.917	Mg	0.002	1.121	87.741	
1A2e	Solid	1.539	78.439	0.078	9.917	Mg	0.001	1.093	88.835	
1A1a	Other	0.001	78.439	0.112	9.917	Mg	0.001	1.044	89.878	
1A4ci	Liquid	0.971	78.439	0.023	9.917	Mg	0.001	0.933	90.812	
1A4ai	Biomass	0.058	78.439	0.097	9.917	Mg	0.001	0.837	91.648	
1A2d	Biomass	0.475	78.439	0.147	9.917	Mg	0.001	0.813	92.461	
1A2d	Liquid	2.234	78.439	0.196	9.917	Mg	0.001	0.807	93.268	
1A2e	Liquid	1.007	78.439	0.048	9.917	Mg	0.001	0.739	94.007	
1A1a	Solid	6.462	78.439	0.892	9.917	Mg	0.001	0.696	94.703	
1A4bi	Liquid	0.555	78.439	0.003	9.917	Mg	0.001	0.630	95.334	
2C7a		0.508	78.439	0.000	9.917	Mg	0.001	0.598	95.931	
1A4ai	Liquid	3.134	78.439	0.453	9.917	Mg	0.001	0.533	96.464	
2G		0.025	78.439	0.046	9.917	Mg	0.001	0.401	96.865	
1A2f	Liquid	0.676	78.439	0.047	9.917	Mg	0.000	0.361	97.226	
1A3dii	Liquid	1.280	78.439	0.198	9.917	Mg	0.000	0.339	97.565	
1A2gviii	Biomass	0.212	78.439	0.063	9.917	Mg	0.000	0.334	97.899	
2C2		0.017	78.439	0.037	9.917	Mg	0.000	0.323	98.222	
1A4bi	Solid	0.387	78.439	0.020	9.917	Mg	0.000	0.274	98.496	
1A4ciii	Liquid	0.056	78.439	0.032	9.917	Mg	0.000	0.234	98.730	
1A2gvii	Liquid	0.021	78.439	0.026	9.917	Mg	0.000	0.217	98.947	
1A2gviii	Solid	0.144	78.439	0.002	9.917	Mg	0.000	0.153	99.100	
1A4cii	Liquid	0.021	78.439	0.016	9.917	Mg	0.000	0.128	99.228	
1A2b	Liquid	0.124	78.439	0.029	9.917	Mg	0.000	0.127	99.354	
1A4ai	Solid	0.017	78.439	0.014	9.917	Mg	0.000	0.112	99.467	
1B1b		0.002	78.439	0.012	9.917	Mg	0.000	0.109	99.575	
1A2d	Other	0.001	78.439	0.010	9.917	Mg	0.000	0.091	99.666	
1A2gviii	Other	0.021	78.439	0.011	9.917	Mg	0.000	0.079	99.746	
1A2e	Biomass	0.005	78.439	0.009	9.917	Mg	0.000	0.074	99.820	

1A4aii	Liquid	0.009	78.439	0.007	9.917	Mg	0.000	0.051	99.871
1A1b	Solid	0.003	78.439	0.004	9.917	Mg	0.000	0.035	99.907
1A4bii	Liquid	0.003	78.439	0.004	9.917	Mg	0.000	0.033	99.940
1A3bi	Gasoline	0.004	78.439	0.003	9.917	Mg	0.000	0.020	99.959
1A2f	Biomass	0.000	78.439	0.002	9.917	Mg	0.000	0.016	99.976
1A3c	Liquid	0.004	78.439	0.001	9.917	Mg	0.000	0.008	99.983
5C1bv		0.000	78.439	0.001	9.917	Mg	0.000	0.006	99.990
1A2a	Biomass		78.439	0.000	9.917	Mg	0.000	0.003	99.993
1A3biii	Diesel oil	0.000	78.439	0.000	9.917	Mg	0.000	0.002	99.995
1A2f	Other		78.439	0.000	9.917	Mg	0.000	0.001	99.997
1A2c	Biomass	0.000	78.439	0.000	9.917	Mg	0.000	0.001	99.998
1A3bi	Diesel oil	0.000	78.439	0.000	9.917	Mg	0.000	0.001	99.999
1A3biv	Gasoline	0.000	78.439	0.000	9.917	Mg	0.000	0.001	99.999
1A3bii	Diesel oil	0.000	78.439	0.000	9.917	Mg	0.000	0.000	100
1A3bii	Gasoline	0.000	78.439	0.000	9.917	Mg	0.000	0.000	100
1A3biv	Diesel oil		78.439	0.000	9.917	Mg	0.000	0.000	100

## Se

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C7c		1.400	1.840	0.002	0.419	Mg	0.172	48.002	48.002	Yes
1A4bi	Biomass	0.206	1.840	0.244	0.419	Mg	0.107	29.898	77.900	Yes
2C7a		0.050	1.840	0.086	0.419	Mg	0.041	11.333	89.233	Yes
1A3bvi		0.026	1.840	0.030	0.419	Mg	0.013	3.591	92.824	
1A4ci	Biomass	0.033	1.840	0.030	0.419	Mg	0.013	3.494	96.318	
1A4ai	Biomass	0.010	1.840	0.016	0.419	Mg	0.008	2.120	98.438	
1A2gvii	Liquid	0.003	1.840	0.004	0.419	Mg	0.002	0.458	98.896	
1A3dii	Liquid	0.014	1.840	0.001	0.419	Mg	0.001	0.356	99.251	
1A4cii	Liquid	0.003	1.840	0.002	0.419	Mg	0.001	0.252	99.503	
1A4ciii	Liquid	0.006	1.840	0.000	0.419	Mg	0.001	0.143	99.646	
5C1bv		0.000	1.840	0.001	0.419	Mg	0.000	0.113	99.759	
1A4aii	Liquid	0.001	1.840	0.001	0.419	Mg	0.000	0.098	99.857	
1A4bii	Liquid	0.000	1.840	0.001	0.419	Mg	0.000	0.070	99.927	
1A3bi	Gasoline	0.000	1.840	0.000	0.419	Mg	0.000	0.022	99.949	
1A3biii	Diesel oil	0.000	1.840	0.000	0.419	Mg	0.000	0.018	99.968	
1A5a	Liquid	0.001	1.840	0.000	0.419	Mg	0.000	0.011	99.979	
1A3c	Liquid	0.001	1.840	0.000	0.419	Mg	0.000	0.009	99.987	
1A3bi	Diesel oil	0.000	1.840	0.000	0.419	Mg	0.000	0.008	99.995	
1A3bii	Diesel oil	0.000	1.840	0.000	0.419	Mg	0.000	0.003	99.999	
1A3biv	Gasoline	0.000	1.840	0.000	0.419	Mg	0.000	0.001	100	
1A3bii	Gasoline	0.000	1.840	0.000	0.419	Mg	0.000	0.000	100	
1A3biv	Diesel oil		1.840	0.000	0.419	Mg	0.000	0.000	100	

## Zn

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C1		303.559	682.839	2.522	131.533	Mg	0.082	27.172	27.172	Yes
2C7c		160.391	682.839	0.550	131.533	Mg	0.044	14.737	41.909	Yes
1A4bi	Biomass	28.903	682.839	34.174	131.533	Mg	0.042	13.892	55.801	Yes
1A5a	Biomass	0.238	682.839	25.123	131.533	Mg	0.037	12.178	67.979	Yes
1A3bvi		18.420	682.839	18.403	131.533	Mg	0.022	7.214	75.193	Yes
1A1a	Biomass	2.327	682.839	13.055	131.533	Mg	0.018	6.122	81.316	Yes
2C6		90.174	682.839	7.787	131.533	Mg	0.014	4.654	85.969	
1A1b	Liquid	3.869	682.839	5.928	131.533	Mg	0.008	2.517	88.486	
1A1a	Solid	30.724	682.839	2.334	131.533	Mg	0.005	1.741	90.227	
1A4ci	Biomass	4.550	682.839	4.283	131.533	Mg	0.005	1.654	91.881	
1A1a	Other	0.016	682.839	3.284	131.533	Mg	0.005	1.593	93.475	
1A4ai	Biomass	1.355	682.839	2.261	131.533	Mg	0.003	0.971	94.446	
1A2f	Solid	5.497	682.839	2.380	131.533	Mg	0.002	0.641	95.087	
2C2		0.100	682.839	1.334	131.533	Mg	0.002	0.638	95.726	
1A2d	Biomass	10.754	682.839	0.764	131.533	Mg	0.002	0.635	96.361	
1A2gviii	Biomass	4.949	682.839	1.909	131.533	Mg	0.001	0.464	96.825	
1A2f	Other		682.839	0.862	131.533	Mg	0.001	0.419	97.243	
1A2d	Solid	4.341	682.839	0.012	131.533	Mg	0.001	0.400	97.643	
1A2f	Liquid	0.327	682.839	0.880	131.533	Mg	0.001	0.397	98.04	
1A2gviii	Other	0.221	682.839	0.765	131.533	Mg	0.001	0.351	98.391	
2C7a		2.563	682.839	0.003	131.533	Mg	0.001	0.238	98.629	
1A2e	Solid	2.955	682.839	0.193	131.533	Mg	0.001	0.183	98.812	
1A4ci	Solid	0.204	682.839	0.375	131.533	Mg	0.000	0.163	98.975	
2G		0.116	682.839	0.357	131.533	Mg	0.000	0.163	99.138	
1A2gvii	Liquid	0.296	682.839	0.369	131.533	Mg	0.000	0.152	99.289	
2B10a		0.010	682.839	0.250	131.533	Mg	0.000	0.120	99.410	
1A2d	Other	0.016	682.839	0.218	131.533	Mg	0.000	0.104	99.514	
1A2d	Liquid	0.110	682.839	0.200	131.533	Mg	0.000	0.087	99.601	
1A4cii	Liquid	0.293	682.839	0.233	131.533	Mg	0.000	0.086	99.686	
1A4bi	Solid	0.770	682.839	0.046	131.533	Mg	0.000	0.050	99.736	
1A4aii	Liquid	0.134	682.839	0.095	131.533	Mg	0.000	0.034	99.770	
1A3dii	Liquid	0.117	682.839	0.083	131.533	Mg	0.000	0.029	99.799	
1A2e	Biomass	0.126	682.839	0.073	131.533	Mg	0.000	0.023	99.823	
1A4bii	Liquid	0.044	682.839	0.056	131.533	Mg	0.000	0.023	99.846	
1A2gviii	Solid	0.271	682.839	0.011	131.533	Mg	0.000	0.020	99.866	
1A2f	Biomass	0.003	682.839	0.038	131.533	Mg	0.000	0.018	99.884	
1A3bi	Gasoline	0.059	682.839	0.038	131.533	Mg	0.000	0.013	99.897	
1A4ai	Solid	0.040	682.839	0.033	131.533	Mg	0.000	0.012	99.909	
1A4ciii	Liquid	0.067	682.839	0.038	131.533	Mg	0.000	0.012	99.922	
1A3biii	Diesel oil	0.018	682.839	0.026	131.533	Mg	0.000	0.011	99.933	
2C3		0.127	682.839	0.004	131.533	Mg	0.000	0.010	99.943	
1A1a	Liquid	0.170	682.839	0.015	131.533	Mg	0.000	0.009	99.951	
1B1b		0.160	682.839	0.041	131.533	Mg	0.000	0.005	99.956	
1A3bi	Diesel oil	0.006	682.839	0.011	131.533	Mg	0.000	0.005	99.961	
1A1b	Solid	0.09	682.839	0.008	131.533	Mg	0.000	0.005	99.965	

1A2a	Biomass		682.839	0.008	131.533	Mg	0.000	0.004	99.969
1A5a	Liquid	0.111	682.839	0.029	131.533	Mg	0.000	0.004	99.973
1A3c	Liquid	0.060	682.839	0.019	131.533	Mg	0.000	0.004	99.977
1A2gviii	Liquid	0.055	682.839	0.003	131.533	Mg	0.000	0.004	99.981
1A4ci	Liquid	0.039	682.839	0.001	131.533	Mg	0.000	0.003	99.984
5C1bv		0.001	682.839	0.006	131.533	Mg	0.000	0.003	99.987
1A4ai	Liquid	0.125	682.839	0.018	131.533	Mg	0.000	0.003	99.990
1A2e	Liquid	0.040	682.839	0.002	131.533	Mg	0.000	0.003	99.992
1A2c	Liquid	0.040	682.839	0.012	131.533	Mg	0.000	0.002	99.995
1A3bii	Diesel oil	0.005	682.839	0.005	131.533	Mg	0.000	0.002	99.997
1A4bi	Liquid	0.022	682.839	0.000	131.533	Mg	0.000	0.002	99.999
1A3biv	Gasoline	0.000	682.839	0.001	131.533	Mg	0.000	0.001	99.999
1A2c	Biomass	0.014	682.839	0.004	131.533	Mg	0.000	0.000	100
1A2b	Liquid	0.005	682.839	0.000	131.533	Mg	0.000	0.000	100
1A3bii	Gasoline	0.002	682.839	0.000	131.533	Mg	0.000	0.000	100
1A3biv	Diesel oil		682.839	0.000	131.533	Mg	0.000	0.000	100

## PCDD/F

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C1		4.552	18.051	0.509	9.497	g I-Teq	0.104	20.096	20.096	Yes
1A1a	Biomass	0.151	18.051	1.551	9.497	g I-Teq	0.082	15.684	35.780	Yes
1A1a	Other	0.002	18.051	0.889	9.497	g I-Teq	0.049	9.456	45.236	Yes
2B10a		3.000	18.051	0.790	9.497	g I-Teq	0.044	8.400	53.636	Yes
1A5a	Biomass	0.007	18.051	0.754	9.497	g I-Teq	0.042	7.990	61.626	Yes
1B1b		1.461	18.051	0.023	9.497	g I-Teq	0.041	7.947	69.573	Yes
5E		3.498	18.051	1.271	9.497	g I-Teq	0.032	6.066	75.639	Yes
1A4bi	Biomass	0.867	18.051	1.025	9.497	g I-Teq	0.032	6.062	81.701	Yes
1A3bi	Gasoline	0.962	18.051	0.184	9.497	g I-Teq	0.018	3.438	85.139	
1A3bi	Diesel oil	0.008	18.051	0.225	9.497	g I-Teq	0.012	2.353	87.492	
2C7a		0.001	18.051	0.201	9.497	g I-Teq	0.011	2.137	89.629	
1A2d	Other	0.009	18.051	0.144	9.497	g I-Teq	0.008	1.482	91.110	
1A3bii	Diesel oil	0.004	18.051	0.133	9.497	g I-Teq	0.007	1.392	92.502	
1A2gviii	Other	0.192	18.051	0.012	9.497	g I-Teq	0.005	0.950	93.452	
1A1a	Solid	1.158	18.051	0.532	9.497	g I-Teq	0.004	0.818	94.270	
1A3biii	Diesel oil	0.217	18.051	0.051	9.497	g I-Teq	0.003	0.671	94.942	
1A4ci	Biomass	0.137	18.051	0.129	9.497	g I-Teq	0.003	0.608	95.550	
1A2d	Solid	0.194	18.051	0.052	9.497	g I-Teq	0.003	0.540	96.090	
1A4ai	Biomass	0.041	18.051	0.068	9.497	g I-Teq	0.003	0.495	96.585	
2C6		0.038	18.051	0.064	9.497	g I-Teq	0.002	0.469	97.054	
1A1b	Liquid	0.019	18.051	0.035	9.497	g I-Teq	0.001	0.265	97.319	
2C3		0.041	18.051	0.045	9.497	g I-Teq	0.001	0.254	97.573	
1A2d	Gaseous	0.016	18.051	0.030	9.497	g I-Teq	0.001	0.237	97.810	
1A2gviii	Biomass	0.199	18.051	0.125	9.497	g I-Teq	0.001	0.219	98.029	
1A2d	Liquid	0.005	18.051	0.023	9.497	g I-Teq	0.001	0.213	98.242	

1A4ci	Solid	0.008	18.051	0.020	9.497	g I-Teq	0.001	0.169	98.411
1A3bii	Gasoline	0.024	18.051	0.001	9.497	g I-Teq	0.001	0.129	98.539
1A2a	Solid	0.024	18.051	0.003	9.497	g I-Teq	0.001	0.107	98.646
1A2d	Biomass	0.808	18.051	0.416	9.497	g I-Teq	0.001	0.102	98.748
1A2f	Other		18.051	0.009	9.497	g I-Teq	0.000	0.093	98.841
1A2gviii	Solid	0.005	18.051	0.010	9.497	g I-Teq	0.000	0.081	98.922
1A2f	Solid	0.024	18.051	0.005	9.497	g I-Teq	0.000	0.081	99.003
1A2c	Other	0.014	18.051	0.000	9.497	g I-Teq	0.000	0.077	99.080
1A4bi	Liquid	0.019	18.051	0.003	9.497	g I-Teq	0.000	0.076	99.156
1A1a	Gaseous	0.020	18.051	0.004	9.497	g I-Teq	0.000	0.072	99.228
1A2e	Biomass	0.007	18.051	0.010	9.497	g I-Teq	0.000	0.066	99.294
1A2c	Biomass	0.012	18.051	0.000	9.497	g I-Teq	0.000	0.065	99.359
2A1		0.029	18.051	0.010	9.497	g I-Teq	0.000	0.059	99.418
2A2		0.038	18.051	0.026	9.497	g I-Teq	0.000	0.059	99.477
1A3biv	Gasoline	0.014	18.051	0.012	9.497	g I-Teq	0.000	0.051	99.528
1A2e	Solid	0.035	18.051	0.013	9.497	g I-Teq	0.000	0.051	99.579
1A4bi	Solid	0.013	18.051	0.002	9.497	g I-Teq	0.000	0.046	99.625
1A2c	Liquid	0.005	18.051	0.006	9.497	g I-Teq	0.000	0.034	99.659
1A3dii	Liquid	0.026	18.051	0.010	9.497	g I-Teq	0.000	0.032	99.691
1A5a	Liquid	0.009	18.051	0.008	9.497	g I-Teq	0.000	0.030	99.721
1A2f	Biomass	0.000	18.051	0.003	9.497	g I-Teq	0.000	0.029	99.751
1A2a	Gaseous	0.001	18.051	0.003	9.497	g I-Teq	0.000	0.027	99.777
2A3		0.005	18.051	0.000	9.497	g I-Teq	0.000	0.026	99.803
1A3biv	Diesel oil		18.051	0.002	9.497	g I-Teq	0.000	0.025	99.828
1A1b	Gaseous	0.004	18.051	0.004	9.497	g I-Teq	0.000	0.022	99.850
2D3b		0.016	18.051	0.010	9.497	g I-Teq	0.000	0.018	99.868
1A5a	Gaseous	0.001	18.051	0.002	9.497	g I-Teq	0.000	0.016	99.884
1A4ai	Liquid	0.012	18.051	0.005	9.497	g I-Teq	0.000	0.014	99.898
1A1a	Liquid	0.007	18.051	0.005	9.497	g I-Teq	0.000	0.014	99.912
5C1bv		0.000	18.051	0.001	9.497	g I-Teq	0.000	0.010	99.922
2L		0.029	18.051	0.015	9.497	g I-Teq	0.000	0.008	99.931
1A2gviii	Liquid	0.003	18.051	0.001	9.497	g I-Teq	0.000	0.008	99.939
1A2c	Gaseous	0.001	18.051	0.001	9.497	g I-Teq	0.000	0.007	99.946
1A4ai	Solid	0.002	18.051	0.002	9.497	g I-Teq	0.000	0.007	99.953
1A2a	Liquid	0.001	18.051	0.000	9.497	g I-Teq	0.000	0.007	99.960
1A2b	Solid	0.002	18.051	0.000	9.497	g I-Teq	0.000	0.005	99.965
1A2f	Liquid	0.002	18.051	0.001	9.497	g I-Teq	0.000	0.005	99.970
1A2e	Liquid	0.002	18.051	0.000	9.497	g I-Teq	0.000	0.005	99.975
1A1b	Biomass		18.051	0.000	9.497	g I-Teq	0.000	0.004	99.979
1A4ciii	Liquid	0.007	18.051	0.004	9.497	g I-Teq	0.000	0.004	99.983
1A4ai	Gaseous	0.000	18.051	0.001	9.497	g I-Teq	0.000	0.004	99.987
1A2a	Biomass		18.051	0.000	9.497	g I-Teq	0.000	0.003	99.989
1A4bi	Gaseous	0.000	18.051	0.000	9.497	g I-Teq	0.000	0.002	99.992
1A4ci	Liquid	0.004	18.051	0.002	9.497	g I-Teq	0.000	0.001	99.993
1A2e	Gaseous	0.000	18.051	0.000	9.497	g I-Teq	0.000	0.001	99.994
1A1b	Solid	0.000	18.051	0.000	9.497	g I-Teq	0.000	0.001	99.996
1A2b	Liquid	0.000	18.051	0.000	9.497	g I-Teq	0.000	0.001	99.997
1A4ci	Gaseous	0.000	18.051	0.000	9.497	g I-Teq	0.000	0.001	99.998

2G		0.001	18.051	0.000	9.497	g I-Teq	0.000	0.001	99.999
1A2gviii	Gaseous	0.000	18.051	0.000	9.497	g I-Teq	0.000	0.001	100
1A2b	Gaseous		18.051	0.000	9.497	g I-Teq	0.000	0.000	100
1A4bi	Other	0.000	18.051	0.000	9.497	g I-Teq	0.000	0.000	100
1A2f	Gaseous	0.001	18.051	0.001	9.497	g I-Teq	0.000	0.000	100
1A3ei	Gaseous	0.000	18.051	0.000	9.497	g I-Teq	0.000	0.000	100

#### PAH-4

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A4bi	Biomass	17.153	18.174	17.117	18.531	Mg	0.021	22.719	22.719	Yes
1A1a	Biomass	0.019	18.174	0.243	18.531	Mg	0.012	13.645	36.364	Yes
1A1a	Other	0.000	18.174	0.178	18.531	Mg	0.010	10.863	47.227	Yes
1A2d	Biomass	0.105	18.174	0.237	18.531	Mg	0.007	7.922	55.148	Yes
2C1		0.132	18.174	0.008	18.531	Mg	0.007	7.717	62.865	Yes
1A2gviii	Other	0.017	18.174	0.118	18.531	Mg	0.006	6.138	69.003	Yes
1A5a	Biomass	0.001	18.174	0.097	18.531	Mg	0.005	5.850	74.853	Yes
1A4bi	Liquid	0.109	18.174	0.017	18.531	Mg	0.005	5.718	80.571	Yes
1A4ai	Liquid	0.074	18.174	0.029	18.531	Mg	0.003	2.810	83.381	
1A3biii	Diesel oil	0.077	18.174	0.112	18.531	Mg	0.002	2.040	85.422	
1A1a	Liquid	0.050	18.174	0.025	18.531	Mg	0.001	1.600	87.022	
1A5a	Liquid	0.045	18.174	0.020	18.531	Mg	0.001	1.574	88.596	
1A3bi	Diesel oil	0.025	18.174	0.046	18.531	Mg	0.001	1.224	89.820	
1A3bi	Gasoline	0.047	18.174	0.030	18.531	Mg	0.001	1.101	90.922	
1A1a	Solid	0.044	18.174	0.029	18.531	Mg	0.001	0.953	91.875	
1A4ci	Liquid	0.025	18.174	0.011	18.531	Mg	0.001	0.870	92.745	
1A2gviii	Liquid	0.015	18.174	0.003	18.531	Mg	0.001	0.762	93.507	
1A2gviii	Biomass	0.027	18.174	0.039	18.531	Mg	0.001	0.717	94.223	
2D3i		0.020	18.174	0.009	18.531	Mg	0.001	0.653	94.876	
1A2e	Liquid	0.010	18.174	0.001	18.531	Mg	0.001	0.559	95.435	
1A2d	Other	0.001	18.174	0.009	18.531	Mg	0.000	0.531	95.966	
1A2c	Liquid	0.009	18.174	0.003	18.531	Mg	0.000	0.377	96.343	
1A2d	Liquid	0.037	18.174	0.032	18.531	Mg	0.000	0.368	96.711	
1A2d	Solid	0.009	18.174	0.003	18.531	Mg	0.000	0.359	97.070	
1A2gvii	Liquid	0.024	18.174	0.030	18.531	Mg	0.000	0.328	97.398	
1A4cii	Liquid	0.023	18.174	0.019	18.531	Mg	0.000	0.324	97.722	
1A2a	Liquid	0.005	18.174	0.000	18.531	Mg	0.000	0.285	98.007	
1A2f	Other		18.174	0.004	18.531	Mg	0.000	0.226	98.232	
1A2f	Liquid	0.008	18.174	0.005	18.531	Mg	0.000	0.225	98.457	
1A3c	Liquid	0.005	18.174	0.002	18.531	Mg	0.000	0.206	98.662	
1A4aii	Liquid	0.011	18.174	0.008	18.531	Mg	0.000	0.201	98.863	
1A1b	Liquid	0.006	18.174	0.008	18.531	Mg	0.000	0.147	99.010	
1A3dii	Liquid	0.004	18.174	0.002	18.531	Mg	0.000	0.117	99.126	
1A2c	Biomass	0.002	18.174	0.001	18.531	Mg	0.000	0.088	99.214	
1A3bii	Gasoline	0.001	18.174	0.000	18.531	Mg	0.000	0.078	99.292	

1A3bii	Diesel oil	0.015	18.174	0.016	18.531	Mg	0.000	0.076	99.368
5C1bv		0.000	18.174	0.001	18.531	Mg	0.000	0.065	99.433
1A2b	Liquid	0.003	18.174	0.002	18.531	Mg	0.000	0.061	99.494
1A4bii	Liquid	0.004	18.174	0.005	18.531	Mg	0.000	0.057	99.551
2G		0.001	18.174	0.001	18.531	Mg	0.000	0.056	99.607
1A2e	Solid	0.002	18.174	0.001	18.531	Mg	0.000	0.055	99.663
1A2gviii	Solid	0.000	18.174	0.001	18.531	Mg	0.000	0.051	99.713
1A3biv	Gasoline	0.000	18.174	0.001	18.531	Mg	0.000	0.045	99.758
1A4ci	Solid	0.000	18.174	0.001	18.531	Mg	0.000	0.043	99.801
1A4ai	Biomass	0.001	18.174	0.002	18.531	Mg	0.000	0.035	99.836
1A4ciii	Liquid	0.001	18.174	0.001	18.531	Mg	0.000	0.035	99.870
1A4bi	Solid	0.001	18.174	0.000	18.531	Mg	0.000	0.032	99.903
1A2e	Biomass	0.001	18.174	0.001	18.531	Mg	0.000	0.025	99.928
1A2f	Biomass	0.000	18.174	0.000	18.531	Mg	0.000	0.021	99.949
1A4ci	Biomass	0.003	18.174	0.003	18.531	Mg	0.000	0.008	99.957
1B1b		0.000	18.174	0.000	18.531	Mg	0.000	0.008	99.965
1A4bi	Other	0.000	18.174	0.000	18.531	Mg	0.000	0.007	99.972
2C2			18.174	0.000	18.531	Mg	0.000	0.007	99.979
1A3biv	Diesel oil		18.174	0.000	18.531	Mg	0.000	0.006	99.985
1A2b	Solid	0.000	18.174	0.000	18.531	Mg	0.000	0.005	99.990
1A2f	Solid	0.000	18.174	0.000	18.531	Mg	0.000	0.003	99.993
2A1		0.000	18.174	0.000	18.531	Mg	0.000	0.003	99.996
1A2a	Biomass		18.174	0.000	18.531	Mg	0.000	0.002	99.998
1A4ai	Solid	0.000	18.174	0.000	18.531	Mg	0.000	0.001	99.999
1A2a	Solid	0.000	18.174	0.000	18.531	Mg	0.000	0.001	100
1A1b	Solid	0.000	18.174	0.000	18.531	Mg	0.000	0.000	100

## HCB

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2B10a		29.000	35.677	21.900	29.245	kg	0.052	45.573	45.573	Yes
2C7a		5.514	35.677	5.962	29.245	kg	0.040	35.115	80.688	Yes
1A1a	Biomass	0.037	35.677	0.452	29.245	kg	0.012	10.278	90.965	
1A4bi	Biomass	0.206	35.677	0.244	29.245	kg	0.002	1.823	92.788	
2C1		0.096	35.677	0.014	29.245	kg	0.002	1.580	94.368	
1A3biii	Diesel oil	0.059	35.677	0.086	29.245	kg	0.001	0.915	95.283	
1A2d	Biomass	0.191	35.677	0.120	29.245	kg	0.001	0.900	96.183	
1A5a	Biomass		35.677	0.036	29.245	kg	0.001	0.874	97.057	
1A3bi	Gasoline	0.108	35.677	0.068	29.245	kg	0.001	0.484	97.541	
1A3bi	Diesel oil	0.020	35.677	0.036	29.245	kg	0.001	0.478	98.019	
3Df		0.057	35.677	0.035	29.245	kg	0.000	0.297	98.316	
2C3		0.033	35.677	0.036	29.245	kg	0.000	0.231	98.546	
1A4ai	Biomass	0.010	35.677	0.016	29.245	kg	0.000	0.203	98.749	
1A2d	Solid	0.007	35.677	0.000	29.245	kg	0.000	0.137	98.886	
5C1bv		0.001	35.677	0.006	29.245	kg	0.000	0.121	99.006	

1A2gviii	Biomass	0.049	35.677	0.045	29.245	kg	0.000	0.112	99.118
1A3bii	Diesel oil	0.015	35.677	0.017	29.245	kg	0.000	0.106	99.225
1A4ci	Biomass	0.033	35.677	0.030	29.245	kg	0.000	0.092	99.317
1A3bii	Gasoline	0.004	35.677	0.000	29.245	kg	0.000	0.073	99.390
1A3dii	Liquid	0.010	35.677	0.006	29.245	kg	0.000	0.060	99.450
1A2c	Biomass	0.003	35.677	0.000	29.245	kg	0.000	0.056	99.506
1A1a	Other		35.677	0.002	29.245	kg	0.000	0.053	99.559
1A2a	Solid	0.003	35.677	0.000	29.245	kg	0.000	0.049	99.608
2D3i		0.004	35.677	0.002	29.245	kg	0.000	0.048	99.656
1A2f	Solid	0.004	35.677	0.001	29.245	kg	0.000	0.044	99.701
1A2b	Solid	0.002	35.677	0.000	29.245	kg	0.000	0.038	99.739
1A4ci	Solid		35.677	0.002	29.245	kg	0.000	0.038	99.777
1A3biv	Gasoline	0.001	35.677	0.002	29.245	kg	0.000	0.035	99.812
1A2gviii	Other		35.677	0.001	29.245	kg	0.000	0.029	99.840
1A4ciii	Liquid	0.004	35.677	0.003	29.245	kg	0.000	0.026	99.867
1A2gviii		0.143	35.677	0.116	29.245	kg	0.000	0.025	99.892
1A2e	Biomass	0.002	35.677	0.002	29.245	kg	0.000	0.022	99.914
1A2e	Solid	0.001	35.677	0.000	29.245	kg	0.000	0.019	99.933
1A3bi	Gaseous		35.677	0.001	29.245	kg	0.000	0.018	99.951
1A2f	Biomass	0.000	35.677	0.001	29.245	kg	0.000	0.016	99.966
1A3biii	Gaseous		35.677	0.001	29.245	kg	0.000	0.013	99.979
1A1a	Solid	0.001	35.677	0.000	29.245	kg	0.000	0.006	99.986
1A5a	Liquid	0.001	35.677	0.001	29.245	kg	0.000	0.005	99.991
1A2d	Other		35.677	0.000	29.245	kg	0.000	0.004	99.995
1A3bii	Gaseous		35.677	0.000	29.245	kg	0.000	0.002	99.997
1A3biv	Diesel oil		35.677	0.000	29.245	kg	0.000	0.002	99.999
1A2a	Biomass		35.677	0.000	29.245	kg	0.000	0.001	100

## PCB

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2022 emission of the NFR category	Year 2022 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1B1b		1.753	28.558	2.909	19.922	kg	0.059	23.946	23.946	Yes
1A2d	Solid	1.907	28.558	0.024	19.922	kg	0.046	18.547	42.493	Yes
1A4bi	Biomass	2.477	28.558	2.929	19.922	kg	0.042	17.059	59.552	Yes
2A1		3.298	28.558	3.061	19.922	kg	0.027	10.795	70.347	Yes
1A2a	Solid	0.784	28.558	0.093	19.922	kg	0.016	6.448	76.795	Yes
1A2f	Solid	1.037	28.558	0.350	19.922	kg	0.013	5.304	82.099	Yes
1A2b	Solid	0.551	28.558	0.021	19.922	kg	0.013	5.160	87.259	
1A1a	Biomass	0.026	28.558	0.316	19.922	kg	0.010	4.241	91.501	
1A2e	Solid	0.298	28.558	0.033	19.922	kg	0.006	2.476	93.977	
1A4ai	Biomass	0.115	28.558	0.194	19.922	kg	0.004	1.617	95.594	
1A4ci	Biomass	0.390	28.558	0.365	19.922	kg	0.003	1.322	96.916	
1A2gviii		0.135	28.558	0.027	19.922	kg	0.002	0.953	97.869	
2C1		13.464	28.558	9.460	19.922	kg	0.002	0.953	98.822	
2C3		0.083	28.558	0.096	19.922	kg	0.001	0.540	99.362	

5C1bv		0.003	28.558	0.016	19.922	kg	0.000	0.198	99.559
2C7c		0.002	28.558	0.015	19.922	kg	0.000	0.196	99.756
1A3dii	Liquid	0.024	28.558	0.005	19.922	kg	0.000	0.169	99.924
1A4bi	Liquid	0.003	28.558	0.001	19.922	kg	0.000	0.025	99.950
1A1a	Other		28.558	0.002	19.922	kg	0.000	0.022	99.971
1A4ai	Liquid	0.002	28.558	0.001	19.922	kg	0.000	0.008	99.980
1A4ci	Liquid	0.001	28.558	0.000	19.922	kg	0.000	0.005	99.984
1A4ciii	Liquid	0.002	28.558	0.001	19.922	kg	0.000	0.004	99.988
1A2d	Biomass	0.002	28.558	0.001	19.922	kg	0.000	0.002	99.990
1A2gviii	Biomass	0.001	28.558	0.001	19.922	kg	0.000	0.002	99.992
1A3bi	Gasoline	0.000	28.558	0.000	19.922	kg	0.000	0.001	99.993
1A1a	Solid	0.000	28.558	0.000	19.922	kg	0.000	0.001	99.995
1A4ci	Solid	0.000	28.558	0.000	19.922	kg	0.000	0.001	99.996
1A4bi	Solid	0.000	28.558	0.000	19.922	kg	0.000	0.001	99.997
2C7a		0.001	28.558	0.000	19.922	kg	0.000	0.001	99.998
1A3bi	Diesel oil	0.000	28.558	0.000	19.922	kg	0.000	0.001	99.998
1A3bii	Diesel oil	0.000	28.558	0.000	19.922	kg	0.000	0.000	99.999
1A2c	Biomass	0.000	28.558	0.000	19.922	kg	0.000	0.000	99.999
1A3bii	Gasoline	0.000	28.558	0.000	19.922	kg	0.000	0.000	99.999
1A3biii	Diesel oil	0.000	28.558	0.000	19.922	kg	0.000	0.000	99.999
1A2gviii	Other		28.558	0.000	19.922	kg	0.000	0.000	100
1A2e	Biomass	0.000	28.558	0.000	19.922	kg	0.000	0.000	100
1A2f	Biomass	0.000	28.558	0.000	19.922	kg	0.000	0.000	100
1A3biv	Gasoline	0.000	28.558	0.000	19.922	kg	0.000	0.000	100
2A2		0.000	28.558	0.000	19.922	kg	0.000	0.000	100
1A4ai	Solid	0.000	28.558	0.000	19.922	kg	0.000	0.000	100
1A2d	Other		28.558	0.000	19.922	kg	0.000	0.000	100
1A2a	Biomass		28.558	0.000	19.922	kg	0.000	0.000	100
1A3biv	Diesel oil		28.558	0.000	19.922	kg	0.000	0.000	100

## Energy Balance

Energy balances are available in Finland's PX-Web databases from [http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin\\_ene\\_ehk/stat-fin\\_ehk\\_pxt\\_002.px/?rxid=5c37441a-ed98-40ad-bfb5-5f29f4898d81](http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin_ene_ehk/stat-fin_ehk_pxt_002.px/?rxid=5c37441a-ed98-40ad-bfb5-5f29f4898d81)

One can select the years, fuels and quantity (TJ), Twh, Share (%) and Annual change (%) and make searches to create output files and graphs as presented below.

002 -- Total energy consumption by source (detailed)

Select variable
About table

Mark your selections and choose between table on screen and file format. Marking tips  
For variables marked \* you need to select at least one value

Year *	Source *	Tiedot *
<input checked="" type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/>	<input checked="" type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/>	<input checked="" type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/>
Total 48 Selected 0	Total 26 Selected 0	Total 4 Selected 0
2012 2013 2014 2015 2016 2017	Diesel fuel Refinery gases etc. Town gas Light fuel oil Recycled fuels Recycled oil	Quantity, TJ TWh Share % Annual change %
Search <input type="text"/> <input type="button" value="▶"/> <input type="checkbox"/> Beginning of row	Search <input type="text"/> <input type="button" value="▶"/> <input type="checkbox"/> Beginning of row	Search <input type="text"/> <input type="button" value="▶"/> <input type="checkbox"/> Beginning of row

Number of selected data cells are: 0 (maximum number allowed is 1,000,000)

Table - Layout 2  
 Chart - Line  
 Chart - Bar  
 Table - Layout 1  
 Tab delimited with heading  
 Semicolon delimited with heading  
 Excel (xlsx) with code and text column  
 Excel workbook (xml) with code and text  
 Excel workbook (xml)  
 Excel (xlsx)  
 Comma delimited with heading  
 PX-file  
 Space delimited with heading

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*Energy balance data available from Finland's PX-Web databases*