

Emission factors in kg CO2-equivalent per unit

Categories			Label		Default value	
Category 1	Category 2	Category 3	Title	Unit	Emission factor (kg CO2eq per unit)	Uncertainty
Conversion	Gas	GWP	GWP CH4	kg	25.00	0%
Conversion	Gas	GWP	GWP N2O	kg	298.00	0%
Energy	Electricity	Country	Canada	kWh	0.19	10%
Energy	Heat	Combustible	Black coal	kWh	0.32	
Energy	Heat	Combustible	Brown coal	kWh	0.40	10%
Energy	Heat	Combustible	Brown coal briquette	kWh	0.40	10%
Energy	Heat	Combustible	Brown coal coke	kWh	0.50	10%
Energy	Heat	Combustible	CNG	kWh	0.18	
Energy	Heat	Combustible	Coal coke	kWh	0.39	10%
Energy	Heat	Combustible	Crude oil	kWh	0.27	5%
Energy	Heat	Combustible	Diesel (kWh)	kWh	0.30	5%
Energy	Heat	Combustible	Diesel (liter)	liter	2.79	5%
Energy	Heat	Combustible	Ethane	kWh	0.20	
Energy	Heat	Combustible	Fuel oil (kWh)	kWh	0.29	5%
Energy	Heat	Combustible	Fuel oil (liter)	liter	3.19	5%
Energy	Heat	Combustible	Gas flared	kg	3.53	
Energy	Heat	Combustible	Kerosene	kWh	0.27	5%
Energy	Heat	Combustible	LNG (kWh)	kWh	0.21	5%
Energy	Heat	Combustible	LPG (liter)	liter	1.69	10%
Energy	Heat	Combustible	Natural gas	kWh	0.21	5%
Energy	Heat	Combustible	Petroleum coke	kWh	0.35	10%
Energy	Heat	Combustible	UNG	kWh	0.18	
Energy	Heat	Organic combustible	Biodiesel (kWh)	kWh	0.01	
Energy	Heat	Organic combustible	Biodiesel (liter)	liter	0.81	
Energy	Heat	Organic combustible	Bioethanol	kg	1.21	10%
Energy	Heat	Organic combustible	Biogas (kg)	kg	1.61	
Energy	Heat	Organic combustible	Biogas (kWh)	kWh	0.02	
Energy	Heat	Organic combustible	Biogas (m3)	m3	0.12	
Energy	Heat	Organic combustible	Biomass (kg)	kg	0.11	10%
Energy	Heat	Organic combustible	Biomass (kWh)	kWh	0.03	10%
Energy	Heat	Organic combustible	Methanol	kg	0.30	
Energy	Heat	Organic combustible	Petrol, 85% ethanol	kg	1.16	
Energy	Heat	Steam	Steam	kg	0.61	0%
Material	Building	Insulation	Glasswool	kg	1.35	
Material	Building	Insulation	Insulation	kg	1.86	
Material	Building	Insulation	Mineral wool	kg	1.20	
Material	Building	Insulation	Wool	kg	0.15	
Material	Building	Insulation	Wool r.	kg	3.17	
Material	Construction material	Cement	Cement	kg	0.89	20%
Material	Construction material	Concrete	Concrete (kg)	kg	0.15	20%
Material	Construction material	Concrete	Concrete (m3)	m3	263.00	
Material	Construction material	Concrete	Reinforced concrete	kg	0.36	20%
Material	Construction material	Fibre	Fibreglass	kg	2.60	20%
Material	Construction material	Gravel	Gravel	ton	4.32	
Material	Construction material	Lime	Lime	kg	0.74	
Material	Construction material	Other	Anthracite	kg	0.53	10%
Material	Construction material	Other	Other	kg	3.00	80%
Material	Construction material	Sand	Sand	kg	0.01	
Material	Iron metal	Iron	Cast iron	kg	1.51	
Material	Iron metal	Iron	Iron	kg	1.91	
Material	Iron metal	Steel	Reinforced steel	kg	1.49	
Material	Iron metal	Steel	Stainless steel	kg	6.15	
Material	Iron metal	Steel	Steel	kg	1.77	
Material	Iron metal	Steel	Steel r.	kg	0.88	10%
Material	Iron metal	Steel	Steel v.	kg	3.29	10%
Material	Non Iron metal	Aluminium	Aluminium	kg	8.14	
Material	Non Iron metal	Aluminium	Aluminium r.	kg	2.01	30%
Material	Non Iron metal	Aluminium	Aluminium v.	kg	11.89	30%
Material	Non Iron metal	Copper	Copper	kg	2.77	50%
Material	Non Iron metal	Copper	Copper v.	kg	3.83	
Material	Non Iron metal	Glass	Glass	kg	0.85	
Material	Non Iron metal	Glass	Glass r.	kg	0.73	20%
Material	Non Iron metal	Glass	Glass v.	kg	4.40	20%
Material	Non Iron metal	Lead	Lead	kg	1.64	30%
Material	Non Iron metal	Lead	Lead r.	kg	0.53	
Material	Non Iron metal	Lead	Lead v.	kg	2.61	
Material	Non Iron metal	Nickel	Nickel	kg	11.53	30%
Material	Non Iron metal	Other	Other metal	kg	4.40	80%
Material	Non Iron metal	Zinc	Zinc	kg	3.41	20%

Material	Non Iron metal	Zinc	Zinc r.	kg	0.48	
Material	Non Iron metal	Zinc	Zinc v.	kg	3.86	
Material	Other	Battery&pile	Battery Alkaline	kg	0.07	
Material	Other	Battery&pile	Battery NiCd	kg	0.21	
Material	Other	Battery&pile	Battery NiMH	kg	57.40	
Material	Other	Board	Board	kg	2.20	20%
Material	Other	Monetary	Electronic	kEUR	550.00	50%
Material	Other	Monetary	Mechanical	kEUR	733.33	50%
Material	Other	Monetary	Monetary ratio 1	kEUR	36.67	50%
Material	Other	Monetary	Monetary ratio 2	kEUR	110.00	50%
Material	Other	Monetary	Monetary ratio 3	kEUR	165.00	50%
Material	Other	Monetary	Monetary ratio 4	kEUR	183.33	50%
Material	Other	Monetary	Monetary ratio 5	kEUR	220.00	50%
Material	Other	Monetary	Monetary ratio 9	kEUR	1,833.33	50%
Material	Other	Monetary	Services highly material	kEUR	110.00	50%
Material	Other	Monetary	Services slightly material	kEUR	36.67	50%
Material	Other	Paper	Paper	kg	2.42	20%
Material	Other	Waste	Waste	ton	14.67	50%
Material	Other	Waste	Waste plastics	ton	1,739.67	20%
Material	Plastic	Fibre	GRP	kg	8.10	
Material	Plastic	Other	Other plastic	kg	2.70	20%
Material	Plastic	Rubber	Rubber	kg	3.18	
Material	Plastic	Rubber	Rubber latex	kg	1.63	
Material	Plastic	Rubber	Rubber synt.	kg	4.02	
Material	Plastic	Thermodurcible	Polyurethane flex.	kg	4.99	40%
Material	Plastic	Thermodurcible	Polyurethane rig.	kg	3.61	
Material	Plastic	Thermoplastic	ABS	kg	3.46	
Material	Plastic	Thermoplastic	EVAC	kg	2.11	
Material	Plastic	Thermoplastic	HDPE r.	kg	1.10	20%
Material	Plastic	Thermoplastic	HDPE v.	kg	1.90	20%
Material	Plastic	Thermoplastic	LDPE r.	kg	1.01	20%
Material	Plastic	Thermoplastic	LDPE v.	kg	2.06	20%
Material	Plastic	Thermoplastic	Nylon	kg	7.90	
Material	Plastic	Thermoplastic	PE	kg	2.40	
Material	Plastic	Thermoplastic	PET r.	kg	1.76	20%
Material	Plastic	Thermoplastic	PET v.	kg	5.44	20%
Material	Plastic	Thermoplastic	Polystyrene	kg	3.07	
Material	Plastic	Thermoplastic	PP gra.	kg	1.95	
Material	Plastic	Thermoplastic	PVC r.	kg	0.48	20%
Material	Plastic	Thermoplastic	PVC v.	kg	2.22	20%
Material	Plastic	Thermoplastic	SAN	kg	3.46	
Process	Water	Other	Tap water	m3	0.32	
Process	Water	Other	Water	m3	0.03	
Process	Water	Other	Water decarb.	m3	0.01	
Process	Water	Other	Water deion.	m3	0.80	
Process	Water	Other	Water solf.	m3	0.02	
Reagent	Chemical	Al(OH)3	Aluminium hydroxide, Al(OH)3	kg	0.66	
Reagent	Chemical	Al2(SO4)3	Aluminium sulphate, powder, Al2(SO4)3	kg	0.50	
Reagent	Chemical	Al2O3	Aluminium oxide, Al2O3	kg	1.23	
Reagent	Chemical	AlCl3	Aluminium chloride, AlCl3	kg	0.60	0%
Reagent	Chemical	Alcool	Alcohol	kg	1.47	25%
Reagent	Chemical	C2Cl4	Tetrachloroethylene, C2Cl4	kg	3.90	
Reagent	Chemical	C2H3ClO2	Chloroacetic acid, C2H3ClO2	kg	2.20	
Reagent	Chemical	C2H6O	Ethanol from ethylene, C2H6O	kg	1.24	
Reagent	Chemical	C2HCl3	Trichloroethylene, C2HCl3	kg	0.45	
Reagent	Chemical	C3H6O	Acetone, liquid, C3H6O	kg	2.19	
Reagent	Chemical	C3H6O	Propanal, C3H6O	kg	3.32	
Reagent	Chemical	C3H7OH	Isopropanol, C3H7OH	kg	1.85	
Reagent	Chemical	C3H8O	1-propanol, C3H8O	kg	3.84	
Reagent	Chemical	C3H8O2	Propylene glycol, C3H8O2	kg	4.14	
Reagent	Chemical	C4H10O	Isobutanol, C4H10O	kg	2.27	
Reagent	Chemical	C4H8O	Tetrahydrofuran, C4H8O	kg	5.78	
Reagent	Chemical	C5H12	Pentane, C5H12	kg	1.09	
Reagent	Chemical	C5H12O	1-pentanol, C5H12O	kg	4.52	
Reagent	Chemical	C6H14	Hexane, C6H14	kg	0.62	50%
Reagent	Chemical	C6H14O4	Triethylene glycol, C6H14O4	kg	3.09	
Reagent	Chemical	C6H4Cl2	o-dichlorobenzene, C6H4Cl2	kg	12.20	
Reagent	Chemical	C6H4Cl2	p-dichlorobenzene, C6H4Cl2	kg	12.20	
Reagent	Chemical	C6H5Cl	Monochlorobenzene, C6H5Cl	kg	12.20	
Reagent	Chemical	C6H5OH	Phenol, C6H5OH	kg	3.87	
Reagent	Chemical	C6H6	Benzene, C6H6	kg	1.76	
Reagent	Chemical	C7H16	Heptane, C7H16	kg	0.92	
Reagent	Chemical	C7H8 (C6H5CH3)	Toluene, C7H8 (C6H5CH3)	kg	1.47	
Reagent	Chemical	CaC2	Calcium carbide, technical grade, CaC2	kg	3.68	
Reagent	Chemical	CaCl2	Calcium chloride, CaCl2. CaCl2	kg	0.89	
Reagent	Chemical	CH2O2	Formic acid, CH2O2	kg	2.51	
Reagent	Chemical	CH3OH	Methyl alcohol, CH3OH	kg	0.66	50%