Steel LCI Dataset

Functional unit: 1000 kg Hot Rolled Coil

1 Material Inputs		Unit
Main material inputs		
Bentonite (Al2O3.4SiO2.H2O, in ground)	2.07E+01	kg
Dolomite (CaCO3.MgCO3, in ground)	8.66E+01	kg
Ilmenite (FeO.TiO2, ore)	2.00E-01	kg
Iron (Fe, ore)	1.29E+03	kg
Limestone (CaCO3, in ground)	8.41E+01	kg
Manganese (Mn, ore)	1.62E+01	kg
Olivine (in ground)	6.52E+00	kg
Sand (in ground)	7.11E-01	kg
Sodium Chloride (NaCl, in ground or in sea)	1.53E+00	kg
Zinc (Zn, ore)	1.69E-05	kg
Steel Scrap	2.08E+02	kg
Land use		
Primary ancillary materials		

2 Energy		Unit
Coal	5.46E+02	kg
Natural Gas	7.16E+01	kg
Oil	5.64E+01	kg
Total Energy	2.52E+04	MJ
Fossil Energy	2.47E+04	MJ
Non-fossil Energy	4.28E+02	MJ
Process Energy	2.46E+04	MJ
Transportation Energy	5.68E+02	MJ

3 Water Use		Unit
Total water	2.39E+04	L
Fuel related water		
Process related water		

4 Emissions to Air		Unit

Carbon dioxide	1.82E+03	kg
CO2 fossil fuel		
CO2 biomass		
Carbon monoxide	1.86E+01	kg
Sulphur oxides (reported as SO2)	5.11E+00	kg
Nitrogen oxides (reported as NO2)	2.76E+00	kg
Methane	2.31E+00	kg
Dust & particles (includes metals) (1)	1.31E+01	kg
Acid gases (2)	8.57E-02	kg
NMHC (non-methane hydrocarbons)	6.01E+00	kg
VOC		
Hydrocarbons (unspecified)	8.79E-02	kg
Nitrogen		
Other organic compounds		
Other		

5 Emissions to Water		Unit
Phosphates and ammonia	6.23E-02	kg
Oils and greases	1.05E-02	kg
Suspended solids	3.27E-01	kg
Other organics	2.79E-04	kg
Other		
Hydrocarbons		
Metals	9.93E-03	kg
Heavy Metals	1.16E-03	kg
Acids		
BOD		
COD		
Salinity		
Dissolved solids	8.67E-01	kg

6 Wastes		Unit
Total waste	4.35E+02	kg
Process related wastes		
Municipal wastes		
Emissions to Land		
RCRA D		
RCRA C		
Emissions to Deepwell		
RCRA D		
RCRA C		

Footnotes

(1) Total of Lead and Particulates.
(2) Total of Hydrogen Chloride and Hydrogen Fluoride.