

Plastic LCI Dataset

Functional unit: 1000 kg Polyethylene Terephthalate (PET) (1)

1 Material Inputs		Unit
Main material inputs		
Process Chemicals (2)	7.20E+00	kg
Sodium Chloride	1.20E+00	kg
Other (3)	3.70E-01	kg
Land use		
Primary ancillary materials		

2 Energy		Unit
Coal	1.34E+04	MJ
Crude Oil	1.81E+04	MJ
Natural Gas	3.18E+04	MJ
Hydro	7.15E+02	MJ
Nuclear	3.27E+03	MJ
Other	2.36E+00	MJ
Total Fuels	6.73E+04	MJ
Coal		
Crude Oil	1.66E+04	MJ
Natural Gas	4.97E+03	MJ
Total Feedstocks (4)	2.16E+04	MJ
Total Fuel and Feedstocks	8.89E+04	MJ

3 Water Use		Unit
Total water		
Fuel related water		
Process related water		

4 Emissions to Air		Unit
Carbon dioxide	2.80E+03	kg
CO2 fossil fuel		
CO2 biomass		
Carbon monoxide	1.10E+01	kg

Sulphur oxides (reported as SO ₂)	1.40E+01	kg
Nitrogen oxides (reported as NO ₂)	9.50E+00	kg
Methane	2.50E+01	kg
Dust & particles (includes metals) (5)	4.62E+00	kg
Acid gases	4.90E-01	kg
NMHC (non-methane hydrocarbons)		
VOC (6)	7.20E+00	kg
Hydrocarbons (unspecified)	1.20E+00	kg
Nitrogen	2.10E+02	kg
Other organic compounds (7)	3.40E+00	kg
Other (8)	3.52E-01	kg

5 Emissions to Water		Unit
Phosphates and ammonia	1.50E-02	kg
Oils and greases	3.30E-01	kg
Suspended solids	4.50E+00	kg
Other organics	1.00E-01	kg
Other (8)	1.50E+00	kg
Hydrocarbons	3.90E-02	kg
Metals	2.80E-01	kg
Heavy Metals		
Acids	2.00E-02	kg
BOD	2.00E+00	kg
COD	1.10E+00	kg
Salinity	4.30E+00	kg
Dissolved solids	1.90E+01	kg

6 Wastes		Unit
Total waste		
Process related wastes		
Municipal wastes		
Emissions to Land		
RCRA D (9)	2.40E+02	kg
RCRA C (10)	2.00E+00	kg
Emissions to Deepwell		
RCRA D (9)	1.10E+01	kg
RCRA C (10)	1.30E-02	kg

Footnotes

(1) Numbers may not add up exactly due to rounding off

(2) Includes additives, catalysts, chemicals, etc.

(3) Includes other feedstocks, such as sulfur, SO₂ from recovery operations, etc.

(4) Feedstock values are the theoretical energy that could be recovered via combustion

(5) Total of Metals and metal compounds and PM₁₀

- (6) VOCs may or may not include compounds already listed under "hydrocarbons" or "other organic compounds"
- (7) Includes oxygenated hydrocarbons, halogenated hydrocarbons, nitrogen-containing hydrocarbons, etc.
- (8) Includes compounds not containing both carbon and hydrogen
- (9) RCRA D EPA-regulated non-hazardous waste
- (10) RCRA C EPA-regulated hazardous waste