

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: Eastman(TM) Purified Terephthalic Acid (EPTA)

Product No.: EAN 900640. P12463NL

Additional identification

Chemical name: terephthalic acid
CAS-No.: 100-21-0

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Chemical Intermediate

Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier

Eastman Chemical Company
200 South Wilcox Drive
Kingsport, TN 37660-5280 US
+14232292000

Visit our website at www.EASTMAN.com or email emnmsds@eastman.com

1.4 Emergency telephone number:

For emergency health, safety, and environmental information, call 1-423-229-4511 or 1-423-229-2000.

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300 or call 423-229-2000.

SECTION 2: Hazards identification

LOW HAZARD FOR USUAL INDUSTRIAL OR COMMERCIAL HANDLING BY TRAINED PERSONNEL

SECTION 3: Composition/information on ingredients

3.1 / 3.2 Substances / Mixtures

General information:

Chemical name	Concentration	Additional identification	Notes
terephthalic acid	100%	CAS-No.: 100-21-0 EC No.: 202-830-0	#

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

This substance has workplace exposure limit(s).

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

SECTION 4: First aid measures**4.1 Description of first aid measures**

Inhalation:	Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.
Eye contact:	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.
Skin contact:	Wash with soap and water. Get medical attention if symptoms occur.
Ingestion:	Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed: No known chronic or acute health risks.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards:	None known.
Treatment:	Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards: None known.

5.1 Extinguishing media

Suitable extinguishing media: Water spray. Dry chemical. Carbon Dioxide.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture: Powdered material may form explosive dust-air mixtures.

5.3 Advice for firefighters

Special fire fighting procedures: Fight fire from a protected location. Minimize dust generation and accumulation.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear appropriate personal protective equipment.

6.2 Environmental precautions:

Avoid release to the environment.

6.3 Methods and material for containment and cleaning up:

Sweep up and place in a clearly labeled container for chemical waste.

Notification Procedures:

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling:

No special precautions are necessary beyond normal good hygiene practices. See Section 8 of the MSDS for additional personal protection advice when handling this product.

7.2 Conditions for safe storage, including any incompatibilities:

Keep container closed.

7.3 Specific end use(s):

Chemical Intermediate

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

If exposure limits have not been established, maintain airborne levels to an acceptable level.

Chemical name	Type	Exposure Limit values	Source
terephthalic acid	TWA	10 mg/m ³	US. ACGIH Threshold Limit Values (01 2010)

8.2 Exposure controls

Appropriate engineering controls:

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information:

Eye bath. Washing facilities.

Eye/face protection:

It is a good industrial hygiene practice to minimize eye contact.

Skin protection

Hand protection: It is a good industrial hygiene practice to minimize skin contact.

Other: No data available.

Respiratory Protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Hygiene measures: Observe good industrial hygiene practices.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Appearance**

Physical State:	Solid
Form:	Crystalline Powder.
Color:	White
Odor:	Slight
Odor Threshold:	No data available.
pH:	No data available.
Melting Point	402 - 404 °C sublimes
Boiling Point:	sublimes
Flash Point:	Not applicable
Evaporation Rate:	No data available.
Flammability (solid, gas):	Not applicable
Flammability Limit - Upper (%)-:	No data available.
Flammability Limit - Lower (%)-:	No data available.
Vapor pressure:	0.00158 Pa (25 °C)
Vapor density (air=1):	5.7
Specific Gravity:	1.51 (15 °C)
Solubility(ies)	
Solubility in Water:	0.017 g/l (25 °C)
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	log Pow: 1.76
Autoignition Temperature:	Not applicable
Decomposition Temperature:	(HPDTA) No exotherm to 400°C
Dynamic Viscosity:	No data available.
Kinematic viscosity:	Not applicable

Explosive properties: Not classified
Oxidizing properties: Not classified

Other information

Dust Explosion Description Number 165 m.b./s
Kst:
Dust Explosion Class: ST-1

SECTION 10: Stability and reactivity

10.1 Reactivity: None known.
10.2 Chemical stability: Stable
10.3 Possibility of hazardous reactions: None known.
10.4 Conditions to avoid: Excessive heat.
10.5 Incompatible materials: Strong oxidizing agents.
10.6 Hazardous decomposition products: Carbon Monoxide. Carbon Dioxide.

SECTION 11: Toxicological information**Information on likely routes of exposure**

Inhalation: None known.
Ingestion: None known.
Skin contact: None known.
Eye contact: None known.

11.1 Information on toxicological effects**Acute Toxicity****Oral**

Product: No data available.

Specified substance(s)

terephthalic acid Oral LD-50: (Rat): > 15,380 mg/kg

Dermal

Product: No data available.

Specified substance(s)

terephthalic acid Dermal LD-50: (Rabbit): > 2,000 mg/kg
(highest dose tested)

Inhalation

Product: No data available.

<p>Specified substance(s) terephthalic acid</p>	LC50 (Rat, 2 h): > 2.02 mg/l
<p>Repeated dose toxicity Product:</p>	No data available.
<p>Specified substance(s) terephthalic acid</p>	NOAEL (Rat, in feed, 90 d): 1250 ppm
<p>Skin corrosion/irritation: Product:</p>	No data available.
<p>Specified substance(s) terephthalic acid</p>	(Rabbit, 4 h): slight
<p>Serious eye damage/eye irritation: Product:</p>	No data available.
<p>Specified substance(s) terephthalic acid</p>	(Rabbit): slight
<p>Respiratory or skin sensitization: Product:</p>	No data available.
<p>Specified substance(s) terephthalic acid</p>	Skin Sensitization:, (Guinea Pig) - non-sensitizing
Germ cell mutagenicity	
In vitro	
<p>Product:</p>	No data available.
<p>Specified substance(s) terephthalic acid</p>	Mutagenicity - Bacterial, : negative +/- activation Chromosomal aberration, : equivocal +/- activation Mutagenicity - Mammalian, : negative +/- activation Chromosomal aberration, : negative +/- activation
In vivo	
<p>Product:</p>	No data available.
<p>Specified substance(s) terephthalic acid</p>	No data available.
Carcinogenicity	
<p>Product:</p>	No data available.
<p>Specified substance(s) terephthalic acid</p>	No data available.
Reproductive toxicity	
<p>Product:</p>	No data available.
<p>Specified substance(s) terephthalic acid</p>	No data available.

Specific target organ toxicity - single exposure**Product:** No data available.**Specified substance(s)**

terephthalic acid No data available.

Specific target organ toxicity - repeated exposure**Product:** No data available.**Specified substance(s)**

terephthalic acid No data available.

Aspiration hazard**Product:** No data available.**Specified substance(s)**

terephthalic acid No data available.

Other adverse effects:

No data available.

SECTION 12: Ecological information**12.1 Toxicity****Acute toxicity****Fish****Product:** No data available.**Specified substance(s)**terephthalic acid LC-50 (Fish, 96 h): > 18.6 mg/l (limit of solubility in fresh water)
LC-50 (Fish, 96 h): > 961 mg/l Read-across from a similar material**Aquatic invertebrates****Product:** No data available.**Specified substance(s)**terephthalic acid EC-50 (daphnid, 48 h): > 20.1 mg/l (limit of solubility in fresh water)
EC-50 (daphnid, 48 h): > 967 mg/l Read-across from a similar material**Chronic Toxicity****Fish****Product:** No data available.**Specified substance(s)**

terephthalic acid No data available.

Aquatic invertebrates**Product:** No data available.**Specified substance(s)**

terephthalic acid NOEC: (daphnid, 21 d): 19.5 mg/l (limit of solubility in fresh water)

Toxicity to Aquatic Plants**Product:** No data available.

Specified substance(s)

terephthalic acid

ErC50 (Alga, 72 h): > 19 mg/l (limit of solubility in fresh water)

ErC50 (Alga, 72 h): > 668 mg/l Read-across from a similar material

12.2 Persistence and degradability

Biodegradation

Product: No data available.

Specified substance(s)

terephthalic acid

82.6 % (14 d, Ready Biodegradability: CO2 Evolution Test) Readily biodegradable

Biological Oxygen Demand:

Product No data available.

Specified substance(s)

terephthalic acid

No data available.

Chemical Oxygen Demand:

Product No data available.

Specified substance(s)

terephthalic acid

No data available.

BOD/COD ratio

Product No data available.

Specified substance(s)

terephthalic acid

No data available.

12.3 Bioaccumulative potential

Product: No data available.

Specified substance(s)

terephthalic acid

No data available.

12.4 Mobility in soil:

No data available.

Known or predicted distribution to environmental compartments

terephthalic acid No data available.

12.5 Results of PBT and vPvB assessment:

No data available.

terephthalic acid

Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria

12.6 Other adverse effects:

No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information:

No data available.

Disposal methods: Dispose of waste and residues in accordance with local authority requirements. Incinerate.

SECTION 14: Transport information

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

DOT

Class not regulated

IMDG - International Maritime Dangerous Goods Code

Class not regulated

IATA

Class not regulated

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS (Canada) Status: noncontrolled

US EPCRA (SARA Title III) Section 313 - Toxic Chemical List

NONE

OSHA: hazardous

TSCA (US Toxic Substances Control Act): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): This product is listed on the DSL. Any impurities present in this product are exempt from listing.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.KE-02190

Philippines Inventory (PICCS) : This product is listed on the Philippine Inventory or otherwise complies with PICCS.

Inventory of Existing Chemical Substances in China: All components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

SECTION 16: Other information

HMIS® Hazard Ratings: Health - 1, Flammability - 1, Chemical Reactivity - 0

HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

Revision Information: New SDS

Key literature references and sources for data: No data available.

Training information: No data available.

Regulation (EC) No. 1272/2008

Issue date: 02/25/2013

SDS No.:

Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.