



Hazard(s) not otherwise classified (HNOC): None known.

### SECTION 3: Composition/information on ingredients

#### Substances / Mixtures

##### General information:

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

\* 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).

### SECTION 4: First aid measures

#### 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. Material is not expected to be absorbed from the gastrointestinal tract so that induction of vomiting should not be necessary.

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

#### Indication of any immediate medical attention and special treatment needed

**Hazards:** None known.

**Treatment:** Treat symptomatically.

### SECTION 5: Firefighting measures

**General Fire Hazards:** Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or grounding procedures.

#### Extinguishing media

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

**Unsuitable extinguishing media:** None known.

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

**Advice for firefighters**

**Special fire fighting procedures:** 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**

**Personal precautions, protective equipment and emergency procedures:** Wear appropriate personal protective equipment.

**Environmental Precautions:** Not regarded as dangerous for the environment.

**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:**

**Precautions for safe handling:** Minimize dust generation and accumulation.

**Conditions for safe storage, including any incompatibilities:** Keep container closed.

**Specific end use(s):** Chemical Intermediate

**SECTION 8: Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

Country specific exposure limits have not been established or are not applicable unless listed below.

Chemical name	type	Exposure Limit Values	Source
terephthalic acid	TWA	10 mg/m3	US. ACGIH Threshold Limit Values (01 2010)

**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**

<b>General information:</b>	Eye bath. Washing facilities.
<b>Eye/face protection:</b>	It is a good industrial hygiene practice to minimize eye contact.
<b>Skin protection</b>	
<b>Hand Protection:</b>	It is a good industrial hygiene practice to minimize skin contact.
<b>Other:</b>	No data available.
<b>Respiratory Protection:</b>	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.
<b>Hygiene measures:</b>	Observe good industrial hygiene practices.
<b>Environmental Controls:</b>	No data available.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

#### Appearance

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

**Reactivity:** None known.  
**Chemical Stability:** Stable  
**Possibility of Hazardous Reactions:** None known.  
**Conditions to Avoid:** Avoid dust formation.  
**Incompatible Materials:** Strong oxidizing agents.  
**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.

**Information on toxicological effects**

**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.  
**Specified substance(s):**  
 terephthalic acid LC50 (Rat, 2 h): > 2.02 mg/l

**Repeated dose toxicity****Product:** No data available.**Specified substance(s):**  
terephthalic acid NOAEL (Rat, in feed, 90 d): 1250 ppm**Skin Corrosion/Irritation****Product:** No data available.**Specified substance(s):**  
terephthalic acid (Rabbit, 4 h): slight**Serious Eye Damage/Eye Irritation****Product:** No data available.**Specified substance(s):**  
terephthalic acid (Rabbit): slight**Respiratory or Skin Sensitization****Product:** No data available.**Specified substance(s):**  
terephthalic acid Skin Sensitization: (Guinea Pig): non-sensitizing Read-across from a similar material**Carcinogenicity****Product:** No data available.**Toxicity to reproduction****Product:** No data available.**Developmental toxicity****Product:** No data available.**Germ Cell Mutagenicity****In vitro****Product:** No data available.**Specified substance(s):**  
terephthalic acid Mutagenicity - Bacterial: negative  
Chromosomal aberration: equivocal  
Mutagenicity - Mammalian: negative Read-across from a similar material  
Chromosomal aberration: negative**In vivo****Product:** No data available.**Specified substance(s):**  
terephthalic acid Chromosomal aberration intraperitoneal injection (Mouse): negative**Specific Target Organ Toxicity - Single Exposure****Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure****Product:** No data available.**Aspiration Hazard****Product:** No data available.**Other effects:** No data available.**SECTION 12: Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****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 hazards to the aquatic environment:****Fish****Product:** 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**Persistence and Degradability****Biodegradation****Product:** No data available.**Specified substance(s):**terephthalic acid  
82.6 % (14 d, Ready Biodegradability: CO2 Evolution Test) Readily biodegradable**BOD/COD Ratio****Product:** No data available.

**Bioaccumulative Potential****Bioconcentration Factor (BCF)****Product:** No data available.**Partition Coefficient n-octanol / water (log Kow)****Product:** Log Kow: 1.76**Mobility in Soil:** No data available.**Other Adverse Effects:** No data available.**SECTION 13: Disposal considerations****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****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 SDS contains all the information required by the Controlled Products Regulations.**  
**WHMIS (Canada) Status:** noncontrolled



**SARA 311-312 Hazard Classification(s):**

fire hazard

**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.**Issue Date:** 05/14/2015**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.