

SAFETY DATA SHEET

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

Product identifier**Product name:** Eastman TMPD(TM) Glycol**Product No.:** EAN 907039. E0204701**Additional identification****Chemical name:** 2,2,4-trimethyl-1,3-pentanediol**CAS-No.:** 144-19-4**Relevant identified uses of the substance or mixture and uses advised against****Identified uses:** Chemical Intermediate**Uses advised against:** None known.**Details of the supplier of the safety data sheet****Manufacturer / Supplier**Eastman Chemical Company
200 South Wilcox Drive
Kingsport, TN 37660-5280 US
+14232292000Visit our website at www.EASTMAN.com or email emnmsds@eastman.com**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

Hazard classification:**Health hazards**

Serious eye damage

Category 2A

OSHA Specified Hazards:

Combustible dust

May form combustible dust concentrations in air.

Warning label items including precautionary statement:**Pictogram:****Signal words:**

WARNING!

Hazard Statement(s): H319: Causes serious eye irritation.
May form combustible dust concentrations in air.

Precautionary statement:

Prevention: P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P210: Keep away from heat/sparks/open flames. - No smoking.
P243: Take precautionary measures against static discharge.

Response: P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.

Disposal: P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

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

SECTION 3: Composition/information on ingredients

Substances / Mixtures

General information:

Chemical name	Concentration	Additional identification	Notes
2,2,4-trimethyl-1,3-pentanediol	100%	CAS-No.: 144-19-4	

* 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: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention. If molten material contacts the eye, immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin contact: Wash with soap and water. Get medical attention if symptoms occur. If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn. Get medical attention.

Ingestion: Seek medical advice.

Most important symptoms and effects, both acute and delayed: May irritate and cause redness and pain. Burns should be treated as thermal burns. The material will come off as healing occurs; therefore, immediate removal from the skin is not necessary.

Indication of any immediate medical attention and special treatment needed

Hazards: Contact with molten substance/product may cause severe burns to skin and eyes.

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: Avoid release to the environment.

Methods and material for containment and cleaning up: Sweep up and place in a clearly labeled container for chemical waste. Large Spillages: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

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: Avoid contact with molten material. Avoid contact with eyes. Wash thoroughly after 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.

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. Safety shower.

Eye/face protection: Wear safety glasses with side shields (or goggles). Wear a face shield when working with molten material.

Skin protection

Hand protection: It is a good industrial hygiene practice to minimize skin contact. When material is heated, wear gloves to protect against thermal burns.

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**Information on basic physical and chemical properties****Appearance**

Physical State: Solid

Form: Crystals or powder.

Color: White

Odor: Mild

Odor Threshold: Not determined.

pH:	No data available.
Melting Point	49 °C
Boiling Point:	236 °C
Flash Point:	110 °C (Cleveland open cup)
Evaporation Rate:	Not determined.
Flammability (solid, gas):	No data available.
Flammability Limit - Upper (%)—:	No data available.
Flammability Limit - Lower (%)—:	No data available.
Vapor pressure:	Not determined.
Vapor density (air=1):	No data available.
Specific Gravity:	0.937 (15 °C)
Solubility(ies)	
Solubility in Water:	Moderate
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	Pow: 138 log Pow: 1.24
Autoignition Temperature:	No data available.
Decomposition Temperature:	(DTA) No exotherm to 500°C
Dynamic Viscosity:	No data available.
Kinematic viscosity:	Not determined.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

Other information

Minimum ignition temperature:	346 °C (method unspecified)
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SECTION 10: Stability and reactivity

Reactivity:	None known.
Chemical stability:	Stable
Possibility of hazardous reactions:	None known.
Conditions to avoid:	None at ambient temperatures.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition products:	Carbon Dioxide. Carbon Monoxide.

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

Inhalation:	None known.
Ingestion:	None known.
Skin contact:	Molten material will produce thermal burns.

Eye contact: Causes eye irritation. Molten material will produce thermal burns.

Information on toxicological effects

Acute Toxicity

Oral

Product: No data available.

Specified substance(s)

2,2,4-trimethyl-1,3-pentanediol Oral LD-50: (Rat): 3,200 mg/kg

Dermal

Product: No data available.

Specified substance(s)

2,2,4-trimethyl-1,3-pentanediol Dermal LD-50: (Guinea Pig): > 20 ml/kg

Inhalation

Product: No data available.

Specified substance(s)

2,2,4-trimethyl-1,3-pentanediol LC50 (Rat, 6 h): > 3.3 mg/l

Repeated dose toxicity

Product: No data available.

Specified substance(s)

2,2,4-trimethyl-1,3-pentanediol No data available.

Skin corrosion/irritation:

Product: No data available.

Specified substance(s)

2,2,4-trimethyl-1,3-pentanediol (Guinea Pig, 24 h): very slight

Serious eye damage/eye irritation:

Product: No data available.

Specified substance(s)

2,2,4-trimethyl-1,3-pentanediol (Rabbit, 24 h): moderate

Respiratory or skin sensitization:

Product: No data available.

Specified substance(s)

2,2,4-trimethyl-1,3-pentanediol Skin Sensitization: (Guinea Pig) - non-sensitizing

Mutagenicity**In vitro****Product:** No data available.**Specified substance(s)**

2,2,4-trimethyl-1,3-pentanediol Mutagenicity - Mammalian, In vitro Mammalian Cell Gene Mutation Test : negative +/- activation

In vivo**Product:** No data available.**Specified substance(s)**

2,2,4-trimethyl-1,3-pentanediol No data available.

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

2,2,4-trimethyl-1,3-pentanediol No data available.

Reproductive toxicity**Product:** No data available.**Specified substance(s)**

2,2,4-trimethyl-1,3-pentanediol No data available.

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

2,2,4-trimethyl-1,3-pentanediol No data available.

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

2,2,4-trimethyl-1,3-pentanediol No data available.

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

2,2,4-trimethyl-1,3-pentanediol No data available.

Other adverse effects:

No data available.

SECTION 12: Ecological information**Toxicity****Acute toxicity**

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

2,2,4-trimethyl-1,3-pentanediol LC-50 (Bluegill Sunfish, 96 h): > 700 mg/l

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

2,2,4-trimethyl-1,3-pentanediol EC-50 (Water Flea, 48 h): > 109.1 mg/l (only dose tested)

Chronic Toxicity**Fish****Product:** No data available.**Specified substance(s)**

2,2,4-trimethyl-1,3-pentanediol No data available.

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

2,2,4-trimethyl-1,3-pentanediol No data available.

Toxicity to Aquatic Plants**Product:** No data available.**Specified substance(s)**

2,2,4-trimethyl-1,3-pentanediol EC-50 (Alga, 72 h): > 110.1 mg/l

Persistence and degradability**Biodegradation****Product:** No data available.**Specified substance(s)**

2,2,4-trimethyl-1,3-pentanediol 99 - 100 % (28 d)

Biological Oxygen Demand:**Product** No data available.**Specified substance(s)**

2,2,4-trimethyl-1,3-pentanediol No data available.

Chemical Oxygen Demand:**Product** No data available.**Specified substance(s)**

2,2,4-trimethyl-1,3-pentanediol No data available.

BOD/COD ratio

Product No data available.

Specified substance(s)
2,2,4-trimethyl-1,3-pentanediol No data available.

Bioaccumulative potential

Product: No data available.

Specified substance(s)
2,2,4-trimethyl-1,3-pentanediol No data available.

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

2,2,4-trimethyl-1,3-pentanediol No data available.

Results of PBT and vPvB assessment: No data available.

2,2,4-trimethyl-1,3-pentanediol 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. Since emptied containers retain product residue, follow label warnings even after container is emptied.

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 MSDS contains all the information required by the Controlled Products Regulations.

WHMIS (Canada) Status: controlled

WHMIS (Canada) Hazard Classification: D/2/B

SARA 311-312 Hazard Classification(s):

immediate (acute) health hazard

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-34637

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 - 2, 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: 11/18/2014

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.