

MATERIAL SAFETY DATA SHEET



Date Issued: 12/09/2010

MSDS No: DIPG

DIPROPYLENE GLYCOL

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: DIPROPYLENE GLYCOL

PRODUCT CODE: DIPG

MANUFACTURER

Distributed by Tarr, LLC
 P.O. Box 12570
 Portland, OR 97212
Service Number: 503-288-5294

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation) :(800) 424 - 9300
CANUTEC (Canadian Transportation) :(613) 996 - 6666

2. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYES: May cause eye irritation.

SKIN: May cause slight irritation.

SKIN ABSORPTION: Not expected to be a skin absorption hazard.

INGESTION: Ingestion of high doses may cause discomfort and irritation of the gastrointestinal tract and CNS depression (fatigue, dizziness, and possibly loss of concentration, with collapse, coma and death in cases of severe overexposure).

INHALATION: Not expected to be an inhalation hazard.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: May produce minimal, reversible eye irritation.

SKIN: None Expected.

INHALATION: Vapors may cause irritation of the eyes, nose and throat as well as CNS depression (fatigue, dizziness, loss of concentration, with collapse, coma, and death possible in cases of severe overexposure). High vapor concentrations may be irritating to the upper respiratory tract.

CHRONIC EFFECTS: None Expected.

REPRODUCTIVE TOXICITY

REPRODUCTIVE EFFECTS: Male rats and female mice ingesting multi-gram quantities of chemical for 90 days exhibited changes in testis and estrous cycle that appeared secondary to clinical and systemic toxicity, debilitation and death. Data available on related homologues suggest it is unlikely to affect fertility or reproduction at lower exposures that do not cause morbidity or mortality.

MEDICAL CONDITIONS AGGRAVATED: No additional information found on whether overexposure to this material would aggravate other existing special medical conditions.

SENSITIZATION: Not expected to cause sensitization by skin contact, however skin reactions of unknown etiology have been described in some hypersensitive individuals following topical application.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS	EINECS
Dipropylene glycol	> 99.5	25265-71-8	246-770-3

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If pain or irritation persists, promptly obtain medical attention.

SKIN: Remove contaminated clothing as needed. Wash skin thoroughly with mild soap and water. If sticky, use a waterless cleaner first. Flush with lukewarm water for 15 minutes.

INGESTION: Not expected to present significant ingestion hazard under anticipated conditions of normal use.

INHALATION: No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

NOTES TO PHYSICIAN: Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: 138°C (280.4°F) Open Cup

FLAMMABLE LIMITS: No data available.

AUTOIGNITION TEMPERATURE: No data available.

EXTINGUISHING MEDIA: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Do NOT use straight streams of water.

FIRE FIGHTING PROCEDURES: Heat from fire can generate flammable vapor. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air. May travel long distances and flash back to vapor source. Fine sprays/mists may be combustible at temperatures below normal flash point. Fight fire from safe distance/location. Heat may build enough pressure to reupture closed containers, spreading fire, and increasing risk of burns and injuries. Use water spray/fog for cooling. Avoid frothing/steam explosion. Burning liquid may float on water. Although water soluble, may not be practical to extinguish fire by water dilution. Notify authorities immediately if liquid enters sewer or public waters.

FIRE FIGHTING EQUIPMENT: Do not enter fire area without proper protection. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters protective clothing will only provide limited protection.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may produce carbon monoxide and other toxic vapors.

6. ACCIDENTAL RELEASE MEASURES

RELEASE NOTES: Vapors may ignite. Equip responders with proper protection. Evacuate/limit access. Extinguish all ignition sources. Stop release; prevent flow to sewers and public waters. Notify fire adn

environmental authorities. Impound/recover large land spill; soak up small spill with inert solids. Use suitable disposal containers. On water, material is soluble and may float or sink. Contain/collect rapidly to minimize dispersion. Disperse residue to reduce aquatic harm. Report per regulatory requirements.

7. HANDLING AND STORAGE

HANDLING: For industrial use only. When normal handling requires heating, do not heat higher than 28C/50F below flash point temperature unless in air-free closed system sealed off from the atmosphere. Handle empty containers with care - residue can burn if heated. Empty containers should be thoroughly rinsed with copious amounts of clean water. The rinse water can be used for makeup water for any necessary dilution of the concentrated product before use, or it can be properly discarded.

STORAGE: Keep container tightly closed and properly labeled. Store in well ventilated area. Store away from heat, moisture, strong oxidizing agents. Material can attack some form of plastics.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: No special ventilation requirements.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Use chemical safety goggles and/or full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work areas.

SKIN: Wear chemical resistant gloves such as: Butyl rubber, nitrile, or consult your safety equipment supplier. Depending on the conditions of use, protective gloves, apron, boots, head and face protection should be worn. The equipment must be cleaned thoroughly after each use.

RESPIRATORY: No occupational exposure limits have been developed for this material. Where exposure through inhalation may occur from use, approved respiratory protection equipment is recommended.

WORK HYGIENIC PRACTICES: Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

OTHER USE PRECAUTIONS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Flash Point (°C)
Dipropylene glycol	255

PHYSICAL STATE: Liquid

ODOR: Little to no odor.

APPEARANCE: Slightly viscous liquid.

COLOR: Clear, colorless liquid.

pH: NA = Not Applicable

PERCENT VOLATILE: 0.1-1.0

VAPOR PRESSURE: < 0.1 mm Hg at 21°C (69.8°F)

VAPOR DENSITY: ~ 4.6 (Air=1.0 at 15 - 20 deg. C/59 - 68 deg. F)

BOILING POINT: ~ 228°C (442.4°F) 760 mm Hg

FLASHPOINT AND METHOD: 138°C (280.4°F) Open Cup

SOLUBILITY IN WATER: Complete.

DENSITY: 8.59

Notes: LBS./gallon

SPECIFIC GRAVITY: 1.000 to 1.03

VISCOSITY #1: ~ 107 mPa.s. at 20°C (68°F) Kinematic

COMMENTS: Pour point -4.4C (-40F)

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: No

STABILITY: Stable under normal conditions of handling, use and transportation.

CONDITIONS TO AVOID: High temperatures, oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide and other toxic vapors.

11. TOXICOLOGICAL INFORMATION

ACUTE

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)
Dipropylene glycol	14800	> 5000

REPEATED DOSE EFFECTS: Repeated exposure of rats to high oral doses (0.25 to 8% in drinking water) of dipropylene glycol produced reduced survival in males and, in both sexes, lower body weights and increased incidences of spontaneous, age-related changes in the kidney and liver. Histopathological changes were present in nasal epithelium in male and female rats and the salivary gland of male rats. Male rats also exhibited a decrease in testis weight and altered testis histopathology following treatments that produced a pronounced reduction in body weight. Mice of both sexes exhibited a reduction in body weight, with liver enlargement and liver lesions present, following repeated ingestion of high doses (0.25 to 8% in drinking water) of dipropylene glycol. The length of the estrous cycles was increased in high dose females, however this finding is of questionable significance given the normal variability in estrous cycle length and the possible contribution of experimental stress.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Environmental releases of propylene glycol will tend to partition to water and soil, with little potential for evaporation.

BIOACCUMULATION/ACCUMULATION: None Expected.

AQUATIC TOXICITY (ACUTE): LC50 / 24 hours (goldfish) > 5,000 mg/l

48-HOUR EC₅₀: > 10000 mg/l (Daphnia magna)

96-HOUR EC₅₀: > 10000 mg/l (green algae)

Notes: EC10/18 hours (bacteria) 1,000 mg/l

CHEMICAL FATE INFORMATION: Inherently biodegradable by adapted microorganisms under aerobic conditions.

COMMENTS: No known chronic or adverse effects have been associated with repeated exposure to this material. No additional toxicology information is available for this material.

13. DISPOSAL CONSIDERATIONS

RCRA/EPA WASTE INFORMATION: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Dipropylene Glycol, Not Regulated

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: To the best of our knowledge, this product is not reportable under SARA 311/312.

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** No
CHRONIC: No

313 REPORTABLE INGREDIENTS: To the best of our knowledge, this product is not listed as a toxic chemical under Section 313 of SARA Title III.

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: To the best of our knowledge, this product is not listed as an extremely hazardous substance.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Dipropylene glycol	25265-71-8

REGULATIONS

STATE REGULATIONS:

This product contains the following chemicals regulated by Pennsylvania's Right to Know Act: Dipropylene Glycol (CAS 25265-71-8)

GENERAL COMMENTS: The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

16. OTHER INFORMATION

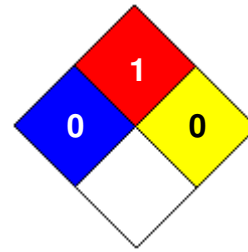
PREPARED BY: E. MIRANDA

REVISION SUMMARY: New MSDS

HMIS RATING

HEALTH:	0
FLAMMABILITY:	1
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	

NFPA CODES



HMIS RATINGS NOTES: The 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 the MSDS must be considered. Personal protection rating to be supplied by user depending on use conditions.

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