



Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300

MATERIAL SAFETY DATA SHEETS

SECTION I

PRODUCT AND COMPANY IDENTIFICATION

Product: Polyethylene Glycol 1500
This MSDS is valid for all grades and catalog #'s

Synonyms: Polyethylene Glycol 1500; Polyethylene Glycol 1500, N.F.; Polyoxyethylene 1500

Formula: (C2-H4-O)n-H2-O

Manufacturer: PHARMCO-AAPER
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Brookfield, Connecticut 06804, USA
Phone (203) 740-3471
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Shelbyville, KY 40065
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Emergency Contact:
CHEMTREC 1-800-424-9300

SECTION II

COMPOSITION /INFORMATION ON INGREDIENTS

% by weight	Material	CAS #	TLV/PEL	LC50/LD50
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100	Polyethylene Glycol 1500	25322-68-3	TWA: 10 (mg/m3) from ACGIH (TLV) [United States] Inhalation Respirable. TWA: 10 (mg/m3) from OSHA (PEL) [United States] Inhalation Respirable. TWA: 15 (mg/m3) from OSHA (PEL) United States Inhalation Total.	ORAL (LD50): Acute: 44200 mg/kg [Rat].
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SECTION III

HAZARDS IDENTIFICATION

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

SECTION IV FIRST AID

Obtain medical attention for all cases of over-exposure.

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Hazardous Skin Contact: Not available.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Hazardous Inhalation: Not available.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Hazardous Ingestion: Not available.

SECTION V FIRE FIGHTING MEASURES

Fire:

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition temperature: Not available.

Flash point: CLOSED CUP: 246°C (474.8°F). (Pensky-Martens.) OPEN CUP: 285°C (545°F) (Cleveland.).

Flammable limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO2).

Fire Hazards: Slightly flammable to flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks

Explosion Hazards: Risks of explosion of the product in

presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Extinguishing Media: SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Information: Not available.

SECTION VI

SPILL/ACCIDENTAL RELEASE MEASURES

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

SECTION VII

HANDLING AND STORAGE

Precautions: Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids, alkalis.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 23°C (73.4°F).

SECTION VIII

EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: TWA: 10 (mg/m³) from ACGIH (TLV) [United States] Inhalation Total. TWA: 3 (mg/m³) from ACGIH (TLV) [United States] Inhalation Respirable. TWA: 10 (mg/m³) from AIHA TWA: 5 (mg/m³) from OSHA (PEL) [United States] Inhalation Respirable. TWA: 15 (mg/m³) from OSHA (PEL) [United States] Inhalation Total. Consult local authorities for acceptable exposure limits.

SECTION IX

PHYSICAL AND CHEMICAL PROPERTIES

Physical State/Appearance: Solid. (Liquid above freezing point, solid below freezing point.)

Molecular Weight: 1305 - 1595 g/mole

Odor: Mild (Slight.)

Taste: Not available.

Color: Colorless (when in liquid form) white when in solid form)

pH (1% Solution in Water): Not available.

Boiling Point: >200°C (392°F)

Melting Point: 43°C (109.4°F) - 46 C(115 F)

Critical Temperature: Not available.

Specific Gravity: 1.15-1.21 @ 25 C(Water = 1)

Vapor Pressure (mm Hg): Not applicable.

Vapor Density (Air=1): >10 (Air = 1)

Volatility: Not available.

Odor Threshold: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Water/Oil Dist. Coefficient: Not available.

Ionicity (in water): Not available.

Dispersion Properties: See solubility in water.

Solubility: Soluble in cold water.

SECTION X

STABILITY/REACTIVITY INFORMATION

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, ignition sources, static, incompatible materials

Incompatibilities: Reactive with oxidizing agents, acids, alkalis.

Corrosivity: Not available.

Special Information: Normally unreactive. However, avoid strong bases at high temperatures, strong acids, strong oxidizing agents and materials reactive with hydroxyl compounds.

SECTION XI

TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 44200 mg/kg [Rat].

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Information on Toxicity to Animals: Not available.

Special Information on Chronic Effects/Toxicity on

Humans: Acute Potential Health Effects: Skin: Not usually a skin irritant. May cause mild skin irritation. Toxicity is unlikely following contact with intact skin. Eyes:

Overexposure to vapor generated at high temperatures may result in mild eye irritation. Inhalation: Overexposure to vapor generated at high temperatures may result in respiratory tract irritation, dizziness, nausea, vomiting.

Ingestion: Toxicity is unlikely following ingestion of small amounts. Ingestion of large amounts may cause digestive

tract irritation with nausea, vomiting, and diarrhea. Ingestion of high doses may also affect the liver, kidneys, cardiovascular system (cardiac arrhythmias, hypotension), and respiratory system (pulmonary edema, aspiration pneumonia with respiratory insufficiency). PEG may be a human allergen or hapten. Anaphylaxis may occur following ingestion of PEG. Toxicity is related to molecular weight of the polyethylene glycol. Liquid products (MW 200 to 400) have produced toxicity, while solid products (MW or greater) are mostly not absorbed. Chronic Potential Health Effects: Skin: Although this material is not a skin irritant, submersion by workers of unprotected skin in highly concentrated solutions of this material for prolonged periods of time could result in skin dehydration.

SECTION XII

ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Information on Products of Biodegradation: Not available.

SECTION XIII

DISPOSAL CONSIDERATIONS

Waste Disposal: Not available.

SECTION XIV

TRANSPORTATION INFORMATION

DOT Classification: DOT Not a DOT controlled material (United States).

UN: Not applicable.

Special Provisions for Transport: Not applicable.

SECTION XV

REGULATORY INFORMATION

Federal and State Regulations: This product contains trace amounts of the following chemical (s) known to the State of California to cause reproductive harm: Ethylene Oxide <=0.0005% This product contains trace amounts of the following chemical(s) known to the State of California to cause cancer:

Acetaldehyde <= 0.0006%

1,4-Dioxane <= 0.0005%

Ethylene Oxide <= 0.0005%

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): This product is not classified according to the EU regulations.

Protective Equipment: Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses

References: Not available.

Other Special Considerations: Not available.

The information contained herein is based on data considered to be accurate based on the material as packaged. However, no warranty is expressed regarding the accuracy of these data or the results to be obtained from the use thereof. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It is the user's obligation to determine the conditions of safe use of the product. While this MSDS is based on technical data judged to be reliable,

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