MATERIAL SAFETY DATA SHEET

Customer's MSDS

BULK APOTHECARY 1800 MILLER PARKWAY STREETSBORO, OH 44241

Date Issued: 03/08/2006 MSDS No: ICC-02365 Date-Revised: 04/19/2007

Revision No: 1

Propylene Glycol USP

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Propylene Glycol USP

PRODUCT CODE: 316110

PRODUCT FORMULATION NAME: Propylene Glycol USP

ACTIVE INGREDIENT(S): Propylene Glycol

BULK APOTHECARY 1800 MILLER PARKWAY STREETSBORO, OH 44241 24 HR. EMERGENCY TELEPHONE NUMBERS

800-ICC-CHEM

Emergency Contact: F. James Corbett,

Director of Quality & EH&S

Product Stewardship: 800-422-2436 Alternate Emergency Phone: 724-981-

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Transportation: 800-422-2436

Alternate Transportation Phone: 724-981-

3771

Service Number: 800-422-2436

Alternate Customer Service: 724-981-3771

COMMENTS: This product contains propylene glycol which is on the FDA's GRAS (GENERALLY REGARDED AS SAFE) list. Dispose of in accordance with all applicable local, state, and federal regulations.

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Irritant to skin. May cause redness and/or burning by contact with liquid,
IMMEDIATE CONCERNS: Irritating to eyes, respiratory system and skin.

POTENTIAL HEALTH EFFECTS

EYES: May cause irritation.

SKIN: Minor skin irritation and penetration may occur

INGESTION: Relatively non-toxic. Ingestion of sizable amount (over 100ml) may cause some gastrointestinal upset and temporary central nervous system depression. Effects appear more severe in individuals with kidney problems

INHALATION: Vapor inhalation is generally not a problem unless heated or misted.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Propylene Glycol	100	00057-55-6

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SKIN: Remove contaminated clothing. Wash with soap and water. Get medical attention.

INGESTION: Not expected to require first aid measures. Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: (210°F) ASTM D56

FLAMMABLE LIMITS: 2.6 to 12.5

AUTOIGNITION TEMPERATURE: (700°F)

EXTINGUISHING MEDIA: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

OTHER CONSIDERATIONS: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Move exposed containers from fire area, if it can be done without risk. Use water to keep fire-exposed containers cool.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Absorb liquid and place in sealed container for disposal.

LARGE SPILL: Ventilate area of leak or spill. Remove all sources of ignition. Contain and recover liquid when possible. Do not flush to sewer.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: When released into water, this material is expected to readily biodegrade.

LAND SPILL: When released into the soil, this material is expected to readily biodegrade.

AIR SPILL: When released into the air, this material is expected to have a half-life between 1 and 10 days.

GENERAL PROCEDURES: Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer!

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Protect container from physical damage. Store in a cool, dry, ventilated area away from sources of heat, moisture, and incompatible substances. Containers of this material may be

hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

HANDLING: Store in adequate storage area at ambient temp.

STORAGE: Store in a cool dry place. Keep from freezing.

STORAGE TEMPERATURE: (20°F) Minimum to (150°F) Maximum

LOADING TEMPERATURE: (20°F) Minimum to (150°F) Maximum

LOADING/UNLOADING VISCOSITY: ~ 60 centipoise

SHELF LIFE: Greater than one year when stored in its original container at the recommended storage temperature with the bungs closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields (or goggles) and a face shield.

SKIN: Wear suitable protective clothing and gloves.

RESPIRATORY: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

PROTECTIVE CLOTHING: Wear protective gloves and clean body-covering clothing. Chemically resistant protective clothing and boots may be required.

WORK HYGIENIC PRACTICES: Establish good personal hygiene and work practices. Always wash hands and face before eating, drinking or smoking. Provide safety shower and eye wash station in work area.

OTHER USE PRECAUTIONS: If the exposure limit is exceeded, a half-face respirator with an organic vapor cartridge and particulate filter (NIOSH type P95 or R95 filter) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece respirator with an organic vapor cartridge and particulate filter (NIOSH P100 or R100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. Please note that N series filters are not recommended for this material. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygendeficient atmospheres.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Odorless

APPEARANCE: Clear, colorless liquid

COLOR: Colorless

pH: Neutral

PERCENT VOLATILE: Not Determined

VAPOR PRESSURE: ~ 0.129 mmHg at (77°F)

VAPOR DENSITY: 2.6 (Air=1)

BOILING POINT: (370°F)

FREEZING POINT: -60°C

MELTING POINT: -60°C

FLASHPOINT AND METHOD: (210°F) ASTM D56

SOLUBILITY IN WATER: Miscible

EVAPORATION RATE: < 1 (n-Butyl Acetate=1) Room Temperature

DENSITY: ~ 8.64 lbs/gal at (60°F)

SPECIFIC GRAVITY: ~ 1.036 (water=1) at 20°C Chart

VISCOSITY #1: 20 Centipoise at (68°F) Viscosity Chart

WEIGHT PER VOLUME: 8.64 lbs/gal

COMMENTS: The information in this section is calculated from specific known information about this product. This information should not be used as exact test results or specifications. The information is provided as typical properties for this product.

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

STABILITY: Stable under ordinary conditions of use and storage.

POLYMERIZATION: Product will not undergo polymerization.

CONDITIONS TO AVOID: Heat, flames, Ignition sources and incompatibles

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Dioxide and Water Vapor

INCOMPATIBLE MATERIALS: Strong Oxidizers

11. TOXICOLOGICAL INFORMATION

GENERAL COMMENTS: Oral rat LD50: 20g/kg. Skin rabbit LD50: 20.8g/kg. Irritation: Eye rabbit/Draize, 500 mg/24H mild.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Low toxicity: LC/EC/IC50>100mg/l

CHEMICAL FATE INFORMATION: When released into the soil, this material is expected to readily biodegrade. When released into the soil, this material is expected to leach into groundwater. When released into water, this material is expected to readily biodegrade. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life between 1 and 10 days.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Whatever cannot be saved for recovery of recycling should be managed in an

appropriate and approved waste disposal facility.

EMPTY CONTAINER: Dispose of container and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not Regulated by DOT

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

FIRE: NO PRESSURE GENERATING: NO REACTIVITY: NO ACUTE: Yes CHRONIC: No

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: This material is listed on the EPA TSCA Inventory of Chemical Substances **TSCA STATUS:** This product is listed with TSCA.

16. OTHER INFORMATION

REASON FOR ISSUE: Revised MSDS

APPROVED BY: Evonne Masello TITLE: Environmental Analyst

PREPARED BY: F. James Corbett

INFORMATION CONTACT: 800-422-2436 x 1163

REVISION SUMMARY: Revision #: 1 This MSDS replaces the March 08, 2006 MSDS. Any changes in information are as follows: In Section 1 MSDS Product Code

HMIS RATING
HEALTH:

FLAMMABILITY:

HYSICAL HAZARD:

PERSONAL PROTECTION: B



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