

Written By: J.Geils

Reviewed and Authorized By:



This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not 'Hazardous' per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

1. PRODUCT AND COMPANY IDENTIFICATION:

ProChill™ Inhibited Propylene Glycol Solutions

Avatar Corporation, 500 Central Avenue University Park, IL 60484 708.534.5511
Transportation emergency contact: Chem-Tel 800.255.3924

Chemical Family: Propylene Glycol based
Chemical Name: Non-Toxic Antifreeze
Synonyms: Non-Toxic Antifreeze
Molecular Weight: Proprietary Information
Molecular Formula: Proprietary Information

2. COMPOSITION / INFORMATION ON INGREDIENTS:

| <u>Component</u> | <u>CAS #</u> | <u>Range % by Wt.</u> |
|-----------------------|--------------|-----------------------|
| Propylene Glycol, USP | 57-55-6 | 35 – 96 |
| Dipotassium Phosphate | 7758-11-4 | 2 – 5 |
| Water | 7732-18-5 | 2 – 60 |

(See Section 8, "Exposure Controls/Personal Protection", for exposure guidelines.)

3. HAZARDS IDENTIFICATION:

NFPA Code: Health-0, Flammability-1, Reactivity-0

HMIS Code: Health-0, Flammability-1, Reactivity-0

Emergency Overview: Low hazard for usual industrial or commercial handling by trained personnel.

Potential Health Effects:

EYE CONTACT: May cause minor eye irritation.

SKIN CONTACT: No significant health hazards identified.

INGESTION: If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur. Aspiration during ingestion or vomiting may cause lung damage.

INHALATION: No significant health hazards identified, unless aspirated.

EFFECTS OF REPEATED EXPOSURE: In rare cases, repeated excessive exposure to propylene glycol may cause central nervous system effects.

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4. FIRST AID MEASURES:

EYE: In case of eye contact, immediately flush eyes with cool water for at least 20 - 30 minutes. Retract eyelids often. Obtain emergency medical information if pain, blinking, tears or redness persist.

SKIN: Wash exposed area of skin with soap and water. If skin irritation or an allergic skin reaction develops, get medical attention.

INGESTION: DO NOT induce vomiting, as aspiration may cause lung damage; seek medical attention. No specific antidote

INHALATION: If symptomatic, move to fresh air. Get medical attention if symptoms persist.

5. FIRE FIGHTING MEASURES:

FLASH POINT: > 214°F (101°C)

METHOD USED: Tag Closed Cup

FLAMMABLE LIMITS: LEL (% vol. in air): 2.35

UEL (% vol. in air): 13.7

AUTOIGNITION TEMPERATURE: > 700°F

FLAMMABILITY CLASSIFICATION: Slight hazard. Material must be preheated before ignition will occur.

EXTINGUISHING MEDIA: Alcohol foam

UNUSUAL FIRE AND EXPLOSION HAZARDS: Heat from fire can generate flammable vapor. When mixed with air and exposed to an ignition source, vapors may burn in open or can explode if confined. Vapors may travel long distances along the ground before igniting and flashing back to the source. Fine sprays/mists may be combustible at temperatures below normal flash point.

FIREFIGHTING EQUIPMENT: Firefighters should wear self-contained breathing apparatus in the positive-pressure mode with a full headpiece when there is a possibility of exposure to smoke, fumes, or hazardous combustion products.

HAZARDOUS COMBUSTION PRODUCTS: Incomplete burning can produce carbon monoxide and/or carbon dioxide and other toxic gases.

6. ACCIDENTAL RELEASE MEASURES:

Absorb spill with inert solids such as sand or soil; sweep up and dispose of in accordance with federal, state, and local regulations. For large spills, dike around spill and pump into suitable containers.

ENVIRONMENTAL PRECAUTIONS: Prevent from entering in to soil, ditches, sewers, waterways and/or groundwater.

7. HANDLING AND STORAGE:

HANDLING: No special requirements

STORAGE: Do not store in Galvanized Steel or opened/unlabeled containers. Store in a cool, well-ventilated area in sealed containers. Store away from strong oxidizing agents or combustible material.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

EYE: Chemical splash goggles and/or face shield must be worn when possibility exists for eye contact. Contact lenses should not be worn.

SKIN: Not normally considered a skin hazard.

INHALATION: Avoid breathing mist. If ventilation is inadequate, use NIOSH/MSHA-certified respirator that will protect against dust/mist.

ENGINEERING CONTROLS: Maintain airborne concentrations below the recommended exposure limits. Good general ventilation (10 air changes per hour) should be sufficient for most conditions.

EXPOSURE GUIDELINES / Limits: OSHA PEL: Not established

ACGIH TLV: Not established

AIHA WEEL: Not established

9. CHEMICAL AND PHYSICAL PROPERTIES:

APPEARANCE: Clear and colorless, slightly viscous liquid

ODOR: Little or no odor

pH: > 7.0

VAPOR PRESSURE: < 0.1 mmHg @ 20°C (68°F)

VAPOR DENSITY (Air=1): > 1

BOILING POINT: > 220°F (>105°C)

FREEZING POINT: < -9°F (< -23°C)

SOLUBILITY: Complete in water (soluble in all proportions).

SPECIFIC GRAVITY: 1.030 - 1.080 @ 25°C/25°C (77°F)

VISCOSITY (Brookfield): 20 - 50 cps @ 25°C (77°F)

10. STABILITY AND REACTIVITY:

STABILITY: Stable

CONDITIONS TO AVOID: Avoid excessive heat and open flames.

MATERIALS TO AVOID: Avoid chlorine, fluorine, and other strong oxidizers as well as strong acids

HAZARDOUS DECOMPOSITION: Incomplete combustion may result in carbon monoxide and carbon dioxide.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION:

Acute Toxicity Data: EYE IRRITATION (rabbit): Slight.

SKIN IRRITATION (rabbit): None.

SKIN SENSITIZATION (human): Slight.

DERMAL LD₅₀: 20.8 g/kg (rabbit)

ORAL LD₅₀: 15.7 - 19.2 g/kg (rabbit)

INHALATION LC₅₀: 65.8 ppm/8 hours (rabbit)

Other Toxicity Data: High concentrations of propylene glycol in water when held in contact with human skin under closed conditions have been reported to cause skin irritation (Cosmetics and Toiletries 99:83-91, 1984). The authors attribute the observations to a sweat retention reaction by skin. No reactions were observed in open patch tests with human subjects.

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12. ECOLOGICAL INFORMATION:

These products have a high biochemical oxygen demand and a potential to cause oxygen depletion in aqueous systems, a low potential to affect aquatic organisms, to persist in the environment and to bio-concentrate. They are expected to have a low potential to affect secondary waste treatment microbial respiration and microbial metabolism, to affect the germination and/or early growth of some plants and some plant seedlings and a high potential to biodegrade (low persistence) with unacclimated micro-organisms from activated sludge. After dilution with a large amount of water, followed by secondary waste treatment, materials are not expected to cause adverse environmental effects.

13. DISPOSAL INFORMATION:

Discharge, treatment, or disposal may be subject to national, state and/or local laws.

14. TRANSPORTATION INFORMATION:

U.S. Department of Transportation: Not regulated.

International Information: Sea (IMO/IMDG) Status: Not regulated

Air (ICAO/IATA) Status: Not regulated

Canadian (TDG) Status: Not regulated

15. REGULATORY INFORMATION:

CERCLA Sections 102A/103 Hazardous Substances (40 CFR Part 302.4): Not reportable

SARA Title III Section 302/304 Extremely Hazardous Substances (40 CFR Part 355):

Not regulated

SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370): Not applicable

SARA Title III Section 313 (40 CFR Part 372): None

U.S. Inventory (TSCA): Listed

Carcinogenicity Classification: Not listed by ACGIH, IARC, NTP, or OSHA

EC Inventory (EINECS/ELINCS): Listed (No. 2003380)

Japan Inventory (MITI): Listed

Australia Inventory (AICS): Listed

Canada Inventory (DSL): Listed

California Safe Drinking Water and Toxic Enforcement Act of 1988-Proposition 65:

Not listed

California (SCAQMD) Rule 443.1 (VOC's): Listed

Massachusetts Substance List: Not listed

New Jersey Registration: Not applicable

Pennsylvania Hazardous Substances List: Propylene Glycol

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