

<b>AVATAR CORPORATION</b>		Date:	10/22/2018
		Revision:	03
Document Number: SDS-3711		Supersedes:	02
		Page	Page 1 of 5
Title:	<b>ProChill™ Series – Safety Data Sheet</b>		
Document Owner:	J.P. Roush, M.S.	Approved by:	Michael Kline

This document is prepared pursuant to 2015 Global Harmonization System (GHS) and OSHA Hazard Communication (29 CFR 1910.1200) standards. Where proprietary ingredient is shown, the identity may be made available as provided in this standard.

## 1. PRODUCT AND COMPANY IDENTIFICATION

### 1.1. Product Identifier

**Tradename:** **ProChill™ Series** (see list at end)  
**Synonyms:** Inhibited Monopropylene Glycol  
**Code:** 3711  
**REACH Registration No.:** NA

### 1.2. Identified uses / uses advised against

**Identified uses:** Used in immersion freezing, fermentation cooling, cooling liquid food stuffs, carbonated beverage packaging, milk pasteurization, defrosting refrigeration coils, humidity control and ice manufacturing. Heat-transfer; Antifreeze (cloud point depressant)

### 1.3. Supplier details:

**Company/Address:** Avatar Corporation, 500 Central Avenue, University Park, IL 60484 USA  
**Website:** [www.avatarcorp.com](http://www.avatarcorp.com)  
**Email:** [jproush@avatarcorp.com](mailto:jproush@avatarcorp.com)  
**Telephone/Fax:** 708.534.5511 / 708.534.0123  
**Responsible Dept:** Regulatory

1.4 Transportation emergency contact: Chem Tel 800.255.3924

## 2. HAZARDS IDENTIFICATION:

### 2.1. Classification of substance or mixture

**Classification according to Regulation (EC) No. 1272/2008 [CLP]:** Not classified

**Classification according to Directive 67/548/EEC or 1999/45/EC:** Not classified

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

### 2.2. Label elements:

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

### 2.3. Other hazards:

**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.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

### 3.1. Substance

Component	CAS No.	EC No.	% by Wt.	HS Tariff Classification No.
Propylene Glycol, USP	57-55-6	200-338-0	25 – 96	2905.32.00.00
Dipotassium Phosphate	7758-11-4		2 – 5	
Water			2 – 75	
FD&C Dye (#40 red,#5 yellow, #1 blue)	25956-17-6 3844-45-9		< 0.02%	

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		Page	Page 2 of 5
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#### 4. FIRST AID MEASURES

##### 4.1. General information:

<i>Eye:</i>	In case of eye contact, immediately flush eyes with cool water for at least 20 minutes, retracting eyelids often. Obtain emergency medical information if pain, blinking, tears or redness persists.
<i>Skin:</i>	Wash exposed area of skin with water. If burned by contact with hot material, cool material as quickly as possible with water. See a physician for burn treatment, irritation or allergic reaction.
<i>Ingestion:</i>	DO NOT induce vomiting, as aspiration may cause lung damage; seek medical attention.
<i>Inhalation:</i>	Remove to fresh air. If unconscious, seek medical attention.

##### 4.2. Most important symptoms and effects, acute and delayed

<i>Symptoms/injuries:</i>	High vapor concentration may induce headache, nausea, dizziness and respiratory irritation. Prolonged/repetitive skin contact may cause skin defatting or dermatitis.
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4.3. Indication of any immediate medical attention and special treatment needed: See 4.1 and 4.2.

#### 5. FIRE FIGHTING MEASURES

##### 5.1. Extinguishing media:

<i>Unsuitable extinguishing media:</i>	Alcohol foam Water streams will scatter liquid and spread fire, but may be used to keep fire-exposed containers and surroundings cool.
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##### 5.2. Special hazards:

<i>Fire hazard:</i>	May create dense smoke during combustion. 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. Incomplete burning can produce carbon monoxide and/or carbon dioxide and other toxic gases. Mild fire hazard when heated above its flash point; material must be preheated before ignition will occur (OSHA Class IIIB).
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##### 5.3. Advise for firefighters:

<i>Firefighting instruction:</i>	Cool unaffected containers and remove to safety.
<i>Firefighting protection:</i>	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.

#### 6. ACCIDENTAL RELEASE MEASURES

##### 6.1. Personal precautions, protective equipment and emergency procedures

<i>Personnel:</i>	Wear appropriate breathing apparatus, protective clothing gloves and eye/face protection. No smoking. Refer to section 8.
<i>Emergency procedures:</i>	Remove all sources of ignition. Keep away from heat/sparks/open flames/hot surfaces.

##### 6.2. Environmental precautions

Prevent spills from entering sewers and public waters.

##### 6.3. Containment / Cleanup

<i>Containment:</i>	Dike around spill; use absorbent materials such as sand or soil.
<i>Cleanup:</i>	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.

AVATAR CORPORATION		Date:	10/22/2018
		Revision:	03
Document Number: SDS-3711		Supersedes:	02
		Page	Page 3 of 5
Title:	<b>ProChill™ Series – Safety Data Sheet</b>		
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## 7. HANDLING AND STORAGE

### 7.1. Handling

No special requirements other than standard safety glasses and protective clothing (i.e. lab coat) are required.

### 7.2. Storage

Store in a cool, well-ventilated area in sealed containers Do not store in open or unlabeled containers. Store away from strong oxidizing agents or combustible material.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

<i>Limits:</i> OSHA PEL:	Not established
ACGIH TLV:	Not established
AIHA WEEL:	Not established

### 8.2. Exposure controls

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

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

*Skin:* Wear protective gloves/clothing. Not normally considered a skin hazard

*Inhalation:* Avoid breathing mist. If ventilation is inadequate, use NIOSH/MSHA certified respirator to protect against mist.

*Environmental controls:* Avoid release to the environment. Notify authorities if product enters sewers or public waters.

## 9. CHEMICAL AND PHYSICAL PROPERTIES

### 9.1. Basic physical and chemical properties

<i>Appearance:</i>	Clear, and colored red, pink, yellow, or blue, slightly viscous liquid.
<i>Odor:</i>	Little to no odor
<i>pH:</i>	7.0
<i>Vapor Pressure:</i>	< 0.1 mmHg @ 20°C (68°F)
<i>Vapor Density (Air=1):</i>	> 1
<i>Boiling Point:</i>	220°F (105°C)
<i>Melting Point:</i>	-9°F (-23°C)
<i>Solubility:</i>	Soluble in water
<i>Specific Gravity (Water=1):</i>	1.030 - 1.080 @ 25°C (77°F)
<i>Viscosity (Brookfield):</i>	20 – 50 cps @ 25°C (77°F)
<i>Pour Point:</i>	Not determined
<i>Flash Point / Method:</i>	214°F minimum / Tag Closed Cup
<i>Autoignition temperature:</i>	700°F
<i>Flammable limits:</i>	LEL (% vol. in air): 2.35 UEL (% vol. in air): 13.7

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity:

Unknown

### 10.2. Chemical Stability:

Stable

### 10.3. Hazardous reactions:

Hazardous polymerization will not occur

### 10.4. Conditions to avoid:

Extreme heat and open flames; contact with chlorine, fluorine, and other strong oxidizers and acids

<b>AVATAR CORPORATION</b>		Date:	10/22/2018
		Revision:	03
Document Number: SDS-3711		Supersedes:	02
		Page	Page 4 of 5
Title:	<b>ProChill™ Series – Safety Data Sheet</b>		
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- 10.5. *Incompatible materials:* Chlorine, fluorine, and other strong oxidizers and acids
- 10.6. *Hazardous decomposition products:* Incomplete burning can produce carbon monoxide and/or carbon dioxide.

## 11. TOXICOLOGICAL INFORMATION (for straight propylene glycol)

- 11.1. *Routes of entry:* Absorbed through skin and eye contact.
- 11.2. *Acute Toxicity:*
- EYE IRRITATION (rabbit):* Slight.
- SKIN IRRITATION (rabbit):* None.
- SKIN SENSITIZATION (human):* Slight.
- DERMAL LD<sub>50</sub>:* 20.8 g/kg (rabbit)
- ORAL LD<sub>50</sub>:* 15.7 - 19.2 g/kg (rabbit)
- INHALATION LC<sub>50</sub>:* 65.8 ppm/8 hours (rabbit)
- Carcinogenicity:* Testing not conducted. See Other Toxicity Data.
- 11.3. *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.

## 12. ECOLOGICAL INFORMATION

- 12.1. *Toxicity* See 12.7.
- 12.2. *Persistence / degradability* No data available
- 12.3. *Bioaccumulation potential* No data available
- 12.4. *Mobility in soil* No data available
- 12.5. *PBT / vPvB assessment* No data available
- 12.6. *Other adverse effects* No data available
- 12.7. *Other information* It has the following properties: a high biochemical oxygen demand and a potential to cause oxygen depletion in aqueous systems, a low potential to affect aquatic organisms, a low potential to persist in the environment, and a low potential to bio-concentrate. It is expected to have the following properties: a low potential to affect secondary waste treatment microbial respiration, a low potential to affect secondary waste treatment microbial metabolism, a low potential to affect the germination and/or early growth of some plants, a low potential to affect the growth of some plant seedlings, a high potential to biodegrade (low persistence) with unacclimated microorganisms from activated sludge. After dilution with a large amount of water, followed by secondary waste treatment, this material is not expected to cause adverse environmental effects.

## 13. DISPOSAL INFORMATION

- 13.1. *Waste treatment methods:* Disposal must be in accordance with applicable federal, state, or local regulations. "Empty" drums should not be given to individuals.

## 14. TRANSPORTATION INFORMATION

- 14.1. *General Information:* Not regulated by U.S. DOT, Canadian TODG, IMO/IMDG, ICAO/IATA, ADR/RID

<b>AVATAR CORPORATION</b>		Date:	10/22/2018
		Revision:	03
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		Page	Page 5 of 5
Title:	<b>ProChill™ Series – Safety Data Sheet</b>		
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## 15. REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

<i>CERCLA Sections 102A/103 Hazardous Substances (40 CFR Part 302.4):</i>	Not reportable.
<i>SARA Title III Section 302/304 Extremely Hazardous Substances (40 CFR Part 355):</i>	Not regulated.
<i>SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370):</i>	Not applicable.
<i>SARA Title III Section 313 (40 CFR Part 372):</i>	None.
<i>U.S. Inventory (TSCA):</i>	Listed.
<i>Carcinogenicity Classification:</i>	Not listed by ACGIH, IARC, NTP, or
OSHA.	
<i>EC Inventory (EINECS/ELINCS):</i>	Listed (No. 2003380).
<i>Japan Inventory (MITI):</i>	Listed.
<i>Australia Inventory (AICS):</i>	Listed.
<i>Canada Inventory (DSL):</i>	Listed.
<i>California Safe Drinking Water and Toxic Enforcement Act of 1988-Proposition 65:</i>	Not listed.
<i>California (SCAQMD) Rule 443.1 (VOC's):</i>	Listed.
<i>Massachusetts Substance List:</i>	Not listed.
<i>New Jersey Registration:</i>	Not applicable.
<i>Pennsylvania Hazardous Substances List:</i>	Propylene Glycol.

## 16. OTHER INFORMATION

This material safety data sheet and the information it contains are offered to you in good faith as accurate. We have reviewed any information contained in this data sheet that we received from sources outside our company. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied

\* ProChill Series Heat Transfer Fluids SDS covers the products below including, but not limited to:

<b>ProChill</b>	<b>ProChill 25-95%</b>	<b>ProChill 95% with Dye</b>	<b>ProChill EXP</b>
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### Revision History

Date	Revision No.	Purpose	Authorized By
05/26/15	2222224-01	Initial	J.P. Roush, M.S.
01/19/18	2222224-02	Date review	J.P. Roush, M.S.
10/22/18	3711-03	Review and revise doc number	J.P. Roush, M.S.

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