HOOD
CHEMICAL

SAFETY DATA SHEET

HD6901
DOWFROST HD

Preparation Date: 28/Sep/2020 Version: 1

1. IDENTIFICATION

Product identifier

Product Name DOWFROST HD

Other means of identification

SDS Number HD6901

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Intended as a heat transfer fluid for closed-loop systems.

Restricted Uses No information available

Initial Supplier Identifier
Hood Chemical.
295 Alliance Rd. #14
Milton, On. L9T 4W8
Telephone: 1-800-567-9791

Emergency telephone number

24 Hour Emergency Phone Number (CANUTEC): 1-888-226-8832 (1-888-CAN-UTEC)

2. HAZARD IDENTIFICATION

Hazardous Classification of the substance or mixture

None

Label elements

Hazard pictograms None

Hazard statements
The mixture does not meet the criteria for classification.

Prevention
Use only outdoors or in a well-ventilated area
Wash hands thoroughly after handling

Response
Get medical advice/attention if you feel unwell
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
Move person to fresh air.

Storage
Store in accordance with local regulations

Disposal
Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations

Unknown acute toxicity No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable.

Mixture

Chemical Name	CAS No	Weight-% (W/W)	Synonyms
Propylene glycol	57-55-6	80-100	Propylene glycol
Water	7732-18-5	1-5	Water
Dipotassium phosphate	7758-11-4	1-5	Dipotassium phosphate

Notes:
Contains: Aqueous additives, Not Hazardous< 2.0 %. Mixture of high purity Dow PuraGuard™ US Pharmacopeia grade propylene glycol, phosphate based corrosion inhibitor and pH stabilizer, and confidential performance additives.

4. FIRST-AID MEASURES

Description of first aid measures

Inhalation
Remove to fresh air.

Eye contact
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact
Wash skin with soap and water.

Ingestion
Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed:
No adverse health effects are expected from swallowing. May cause slight transient (temporary) eye irritation. No significant irritation expected from a single short-term exposure. Repeated contact may cause flaking and softening of skin.

Indication of any immediate medical attention and special treatment needed:

Note to physicians
Treatment based on sound judgment of physician and individual reactions of patient.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

Specific hazards arising from the substance or mixture
This material will not burn until the water has evaporated. Residue can burn.

Hazardous combustion products
The smoke may contain unidentified toxic and/or irritating compounds. Decomposition products can include and are not limited to:. Carbon monoxide. Carbon dioxide.

Special protective equipment and precautions for fire-fighters
Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required.

Environmental precautions

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Consult local authorities.

Methods and materials for containment and cleaning up

Small spills: soak up with absorbent material and scoop into containers. Large spills : prevent contamination of waterways. Dike and pump into suitable containers. Clean up residual with absorbent material, place in appropriate container and flush with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperature possibly resulting in spontaneous combustion.

Conditions for safe storage, including any incompatibilities

Do not store in: galvanized steel. Do not store in unlabeled containers. Store in carbon steel, stainless steel. Store in original container. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits .

Chemical Name	Alberta OEL	British Columbia OEL	Ontario	Quebec OEL	Exposure Limit - ACGIH	Immediately Dangerous to Life or Health - IDLH
Propylene glycol 57-55-6	Not available	Not available	TWA: 10 mg/m^3 TWA: 50 ppm TWA: 155 mg/m^3	Not available	Not available	Not available
Water 7732-18-5	Not available	Not available	Not available	Not available	Not available	Not available
Dipotassium phosphate 7758-11-4	Not available	Not available	Not available	Not available	Not available	Not available

Consult local authorities for recommended exposure limits

Appropriate engineering controls

Engineering controls
Use in a well ventilated area.

Individual protection measures, such as personal protective equipment

Eye/face protection
Chemical goggles; also wear a face shield if splashing hazard exists.

Hand protection
Use gloves chemically resistant to this material, examples of preferred glove barrier materials include:. Butyl rubber. Natural rubber gloves. Neoprene gloves. Nitrile rubber. Polyethylene gloves. Ethyl Vinyl Alcohol Laminate (EVAL). Polyvinyl alcohol (PVA). Polyvinylchloride (PVC) gloves. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials as well as the instructions/specifications provided by the glove supplier.

Skin and body protection
Skin contact should be prevented through the use of suitable protective clothing, gloves and footwear, selected for conditions of use and exposure potential. Consideration must be given both to durability as well as permeation resistance.

Respiratory protection
If exposure exceeds occupational exposure limits, use an appropriate NIOSH-approved respirator. Organic vapor cartridge with a particulate pre-filter.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

Physical state	Liquid
Color	Yellow to Green
Odor	Odorless
Odor threshold	No information available

PROPERTIES	Values	Remarks • Method
pH	9.5	None known
Melting point / freezing point	No data available	(Supercools; freezing point may therefore vary)
Initial boiling point/boiling range	152 °C / 306 °F	None known
Flash point	104 °C / 219 °F	Pensky-Martens Closed Cup (PMCC) (based on components)
Evaporation rate	<0.5	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability limit:	12.5	
Lower flammability limit:	2.6	
Vapor pressure	No data available	None known
Relative vapor density	>1.0	None known
Specific Gravity	1.06	
Water solubility	Soluble in water	
Solubility in other solvents	No data available	
Partition coefficient	No data available	
Autoignition temperature	371 °C / 700 °F	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	43.4 cSt	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available.	
Oxidizing properties	No information available.	
Molecular weight	No information available	
VOC Percentage Volatility	No information available	
Liquid Density	No information available	
Bulk density	No information available	

10. STABILITY AND REACTIVITY

Reactivity/Chemical Stability
Stable under normal conditions

Possibility of hazardous reactions
No additional remark.

Hazardous polymerization
Will not occur.

Conditions to avoid
High temperatures. Some components of this product can decompose at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible materials
Contact with oxidizing agents. Strong acids. Strong bases.

Hazardous decomposition products
Carbon monoxide. Carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
No significant irritation expected from a single short-term exposure.

Eye contact
May cause slight transient (temporary) eye irritation.

Skin contact
No significant irritation expected from a single short-term exposure. Repeated contact may cause flaking and softening of skin.

Ingestion
No adverse health effects are expected from swallowing.

Information on toxicological effects

Symptoms
No additional information available.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	42,553.00 mg/kg
ATEmix (dermal)	44,255.00 mg/kg

Unknown acute toxicity No information available

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Propylene glycol 57-55-6	= 20 g/kg (Rat)	= 20800 mg/kg (Rabbit)	Not available
Water 7732-18-5	> 90 mL/kg (Rat)	Not available	Not available
Dipotassium phosphate 7758-11-4	Not available	Not available	Not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation
No significant irritation expected from a single short-term exposure. Repeated contact may cause flaking and softening of skin.

Serious eye damage/eye irritation
May cause slight transient (temporary) eye irritation.

Respiratory or skin sensitization
No information available.

Germ cell mutagenicity
No information available.

Carcinogenicity
No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Propylene glycol 57-55-6	Not available	Not available	Not available	Not available
Water 7732-18-5	Not available	Not available	Not available	Not available
Dipotassium phosphate 7758-11-4	Not available	Not available	Not available	Not available

Reproductive toxicity
No information available.

Specific target organ systemic toxicity - single exposure
No information available.

Specific target organ systemic toxicity - repeated exposure
No information available.

Aspiration hazard
No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

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Chemical Name	Ecotoxicity - Freshwater Algae Data	Ecotoxicity - Fish Species Data	Toxicity to microorganisms	Crustacea
Propylene glycol 57-55-6	19000 mg/L EC50 Pseudokirchneriella subcapitata 96 h	41 - 47 mL/L LC50 (Oncorhynchus mykiss) 96 h static 51400 mg/L LC50 (Pimephales promelas) 96 h static 51600 mg/L LC50 (Oncorhynchus mykiss) 96 h static 710 mg/L LC50 (Pimephales promelas) 96 h	Not available	EC50: >1000mg/L (48h, Daphnia magna) EC50: >10000mg/L (24h, Daphnia magna)
Water 7732-18-5	Not available	Not available	Not available	Not available
Dipotassium phosphate 7758-11-4	Not available	Not available	Not available	Not available

Persistence and degradability No information available.

Bioaccumulation No information available.

Chemical Name	Partition coefficient
Propylene glycol 57-55-6	Not available
Water	Not available

7732-18-5	
Dipotassium phosphate 7758-11-4	Not available

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Do not reuse empty containers.

14. TRANSPORT INFORMATION

TDG (Canada):

UN Number	Not applicable
Shipping name	Not regulated
Class	Not applicable
Packing Group	Not applicable
Marine pollutant	Not available.

DOT (U.S.)

UN Number	Not applicable
Shipping name	Not regulated
Class	Not applicable
Packing Group	Not applicable
Marine pollutant	Not available

15. REGULATORY INFORMATION

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

U.S. Regulatory Rules

Chemical Name	CERCLA/SARA - Section 302:	SARA (311, 312) Hazard Class:	CERCLA/SARA - Section 313:
Propylene glycol - 57-55-6	Not Listed	Not Listed	Not Listed
Water - 7732-18-5	Not Listed	Not Listed	Not Listed
Dipotassium phosphate - 7758-11-4	Not Listed	Not Listed	Not Listed

International Inventories

TSCA	All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.
DSL/NDSL	All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

16. OTHER INFORMATION

NFPA:	**Health hazards**	0	**Flammability**	0	**Instability**	0	**Physical and chemical properties**	-
HMIS:	**Health hazards**	0	**Flammability**	0	**Physical hazards**	0	**Personal protection**	X

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Prepared By: The Environment, Health and Safety Department of Univar Canada Ltd.

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End of Safety Data Sheet

Region		The following sections have been revised:	Canada
Template name	HGHS	Revision Note 2.0	

Inhalation Statement	Liquid or Aerosol
Inhalation	No significant irritation expected from a single short-term exposure.
Conditions to avoid	Moisture.
Possibility of hazardous reactions	No additional remark.
Symptoms	In animals, blood effects have been reported.
Note to physicians	Treatment based on sound judgment of physician and individual reactions of patient.
Engineering controls	Use in a well ventilated area.
Hand protection	4H(R).

pH	9.5
Kinematic viscosity - VALUE 1	43.4 cSt
Physical state	Liquid
Flash point °C - VALUE 1	104
Boiling point / boiling range °C - VALUE 1	152
Flash Point:	Not available.

GHS Classification

Not Hazardous	Not classified
Physical hazards	None

Component	Exclude this non-hazardous chemical from toxicity and ecotoxicity calculations for LD/LC/EC50	mg/kg oral LD50 (rat)	LD50 (Dermal, Rat, mg/kg)	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - gas - ppm	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L
Propylene glycol 57-55-6 (80-100)	-	-	-	-	-	-	-
Water 7732-18-5 (1-5)	-	-	-	-	-	-	-
Dipotassium phosphate 7758-11-4 (1-5)	-	-	-	-	-	-	-

Hazard statements	EUH210 - Safety data sheet available on request
Hazard statements	The mixture does not meet the criteria for classification.
Skin	IF ON SKIN: Wash with plenty of soap and water
Prevention	Use only outdoors or in a well-ventilated area Wash hands thoroughly after handling
Response	Get medical advice/attention if you feel unwell
Eyes	If eye irritation persists: Get medical advice/attention
Skin	IF ON SKIN: Wash with plenty of soap and water
Inhalation	Move person to fresh air.
Storage	Store in accordance with local regulations
Disposal	Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations
The following values are calculated based on chapter 3.1 of the GHS document	
ATEmix (oral)	42,553.00
Units	mg/kg
ATEmix (dermal)	44,255.00
Units	mg/kg
Unknown acute toxicity	2.5 % of the mixture consists of component(s) of unknown hazards to the aquatic environment
Unknown Acute Aquatic Toxicity	2.5
Unknown Chronic Aquatic Toxicity	2.5
Product ATE Oral Status	1
Product ATE Dermal Status	1
Product ATE Inhalation - Gas Status	1
Product ATE Inhalation - Vapor Status	1
Product ATE Inhalation - Dust/Mist Status	1
Product Skin Corrosion Status	1
Product Eye Damage Status	1
Product Respiratory Sens. Status	1
Product Skin Sensitization Status	1
Product Mutagenic Status	1
Product Carcinogenic Status	1
Product Reproductive Toxicity Status	1
Product STOT Single Status	1
Product STOT Repeated Status	1
Product Aquatic Toxicity Status	1
Product Aspiration Toxicity Status	1
Product Ozone Status	1
Product and Component Overall Classification Status	1

Unknown acute toxicity No information available

Unknown acute toxicity 100

2.5 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

2.5 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

49.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

49.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

49.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)