

Material Safety Data Sheet

NR05969 DOWFROST 50-50

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Id: NR05969

Product Name: DOWFROST 50-50

Synonyms: None

Chemical Family: None Known **Application:** Not Available.

Distributed By: Univar Canada Ltd. 9800 Van Horne Way Richmond, BC V6X 1W5

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

Preparation date of MSDS: 10/Mar/2016

Telephone number of preparer: 1-866-686-4827

24-Hour Emergency Telephone Number (CANUTEC): (613) 996-6666

2. HAZARDS IDENTIFICATION

Potential Acute Health Effects:

Eye Contact: May cause slight transient (temporary) eye irritation.

Skin Contact: No significant irritation expected from a single short-term exposure. **Inhalation:** No significant irritation expected from a single short-term exposure.

Ingestion: No adverse health effects are expected from swallowing.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percentage (W/W)	LD50s and LC50s Route & Species:
Water 7732-18-5	30-60	Oral LD50 (Rat) >90 mL/kg
Propylene glycol 57-55-6	40-70	Oral LD50 Rat = 20000 mg/kg Dermal LD50 Rabbit = 20800 mg/kg
Dipotassium phosphate 7758-11-4	1-5	Not available.

Note: No additional remark.

4. FIRST AID MEASURES

Eye Contact: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Notes to Physician: Treatment based on sound judgment of physician and individual reactions of patient.

5. FIRE FIGHTING MEASURES

Flash Point: Not Available.

Flash Point Method: Not Available.

Autoignition Temperature: Not available.

Flammable Limits in Air (%): Not Available.

Extinguishing Media: Use DRY chemicals, CO2, alcohol foam or water spray.

Special Exposure Hazards: Not Available.

Hazardous Decomposition/Combustion Materials (under fire conditions): Carbon monoxide. Carbon dioxide. Special Protective Equipment: Fire fighters should wear full protective clothing, including self-contained breathing

equipment.

NFPA RATINGS FOR THIS PRODUCT ARE: Not Available. HMIS RATINGS FOR THIS PRODUCT ARE: Not Available.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Wear appropriate protective equipment.

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

Procedure for Clean Up: Isolate hazard area and restrict access. Absorb with an inert dry material and place in an appropriate waste disposal container. Avoid direct contact with material.

7. HANDLING AND STORAGE

Handling: For industrial use only. Handle and open containers with care. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid inhalation of chemical. Empty containers may contain hazardous product residues. Keep the containers closed when not in use. Protect against physical damage. Use appropriate personnel protective equipment.

Storage: Store in a cool, dry, well ventilated area, away from heat and ignition sources. Place away from incompatible materials. Store in accordance with good industrial practices.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Use in a well ventilated area.

Respiratory Protection: If exposure exceeds occupational exposure limits, use an appropriate NIOSH approved respirator. In case of spill or leak resulting in unknown concentration, use a NIOSH approved supplied air respirator.

Gloves:

Impervious gloves.

Skin 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.

Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

Ingredients	Exposure Limit - ACGIH	Exposure Limit - OSHA	Immediately Dangerous
			to Life or Health - IDLH
Water	Not available.	Not available.	Not Available.
Propylene glycol	Not available.	Not available.	Not Available.
Dipotassium phosphate	Not available.	Not available.	Not Available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Color: Clear Odor: Odorless pH Not Available.

Specific Gravity: 1.0277 Boiling Point: Not Available.

Freezing/Melting Point: Not Available.

Vapor Pressure: Not Available.
Vapor Density: Not Available.
% Volatile by Volume: Not Available.
Evaporation Rate: Not Available.

Solubility: Soluble. **VOCs:** Not Available. **Viscosity:** Not Available.

Molecular Weight: Not Available.

Other: Not Available.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Hazardous Polymerization: Will not occur. **Conditions to Avoid:** High temperatures.

Materials to Avoid: Contact with oxidizing agents.

Hazardous Decomposition Products: Not available.

Additional Information: No additional remark.

11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure

Ingestion: No adverse health effects are expected from swallowing.

Skin Contact: No significant irritation expected from a single short-term exposure. **Inhalation:** No significant irritation expected from a single short-term exposure.

Eye Contact: May cause slight transient (temporary) eye irritation.

Additional Information: No additional information available.

Acute Test of Product:

NR05969 DOWFROST 50-50 Page 3 of 6 Acute Oral LD50: Not Available.
Acute Dermal LD50: Not Available.
Acute Inhalation LC50: Not Available.

Carcinogenicity:

Ingredients	IARC - Carcinogens	ACGIH - Carcinogens
Water	Not listed.	Not listed.
Propylene glycol	Not listed.	Not listed.
Dipotassium phosphate	Not listed.	Not listed.

Carcinogenicity Comment: No additional information available.

Reproductive Toxicity/ Teratogenicity/ Embryotoxicity/ Mutagenicity: Not Available.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

Ingredients	Ecotoxicity - Fish Species Data	Acute Crustaceans Toxicity:	Ecotoxicity - Freshwater Algae Data
Water	Not Available.	Not Available.	Not Available.
Propylene glycol	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.	19000 mg/L EC50 Pseudokirchneriella subcapitata 96 h
Dipotassium phosphate	Not Available.	Not Available.	Not Available.

Other Information:

No additional remark.

13. DISPOSAL CONSIDERATIONS

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

Contaminated Packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORT INFORMATION

DOT (U.S.):

DOT Shipping Name: Not Regulated.
DOT Hazardous Class Not Applicable.
DOT UN Number: Not Applicable.
DOT Packing Group: Not Applicable.

DOT Reportable Quantity (lbs): Not Available.

Note: No additional remark.

Marine Pollutant: No.

TDG (Canada):

TDG Shipping Name: Not Regulated. **Hazard Class:** Not Applicable. **UN Number:** Not Applicable.

NR05969 DOWFROST 50-50 Page 4 of 6

14. TRANSPORT INFORMATION

Packing Group: Not Applicable.
Note: No additional remark.
Marine Pollutant: No.

15. REGULATORY INFORMATION

U.S. TSCA Inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

U.S. Regulatory Rules

Ingredients	CERCLA/SARA - Section	SARA (311, 312) Hazard	CERCLA/SARA - Section
	302:	Class:	313:
Water	Not Listed.	Not Listed.	Not Listed.
Propylene glycol	Not Listed.	Not Listed.	Not Listed.
Dipotassium phosphate	Not Listed.	Not Listed.	Not Listed.

California Proposition 65: Not Listed.
MA Right to Know List: Not Listed.
New Jersey Right-to-Know List: Listed.
Pennsylvania Right to Know List: Listed.

Additional Notes: Not Available.

WHMIS Hazardous Class: NON-CONTROLLED

16. OTHER INFORMATION

Additional Information:

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Disclaimer:

NOTICE TO READER:

Univar, expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

Do not use ingredient information and/or ingredient percentages in this MSDS as a product specification. For product specification information refer to a Product Specification Sheet and/or a Certificate of Analysis. These can be obtained from your local Univar Sales Office.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, Univar makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Univar's control and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process.

©2015 Univar Inc. All rights reserved. Univar, the hexagon, the Univar logo and MasterLine are the registered trademarks of Univar Inc.

END OF MSDS