

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION

OSTREM CHEMICAL CO. LTD.
2310 - 80 AVENUE
EDMONTON AB T6P 1N2

Phone: 780-440-1911 or 780-446-0177
In Case of Emergency Only:
phone CANUTEC at (613) 996-6666

Product name: DE-ICING FLUID 100

Code: D347

Other name:

Distributed by:

Product use: de-icing fluid

Date completed: April 01, 2014

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	%W/W	CAS number
methanol	30-60	67-56-1
isopropanol	15-40	67-63-0
ethylene glycol	7-13	107-21-1
ethyl ether	3-7	60-29-7

3. HAZARDS IDENTIFICATION

Flammable liquid and vapour. May cause dizziness, headache or nausea. May be harmful if inhaled. Harmful if swallowed. May cause blindness.

4. FIRST AID MEASURES

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

Ingestion: Induce vomiting only on the direct advice of a poison control centre. Drink 1-2 glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

Eye contact: Flush with plenty of water for at least 15 minutes. Get medical attention.

Skin contact: Remove contaminated clothing and flush with plenty of water.

5. FIRE - FIGHTING MEASURES

Flash point (test method): -5C(TCC)

Flammable limits (%): Not available

Lower: Not available

Upper: Not available

Fire extinguishing substances: Use dry chemicals, carbon dioxide, water spray or foam.

Autoignition temperatures: Not available

Hazardous combustion products: May liberate carbon monoxide, carbon dioxide and formaldehyde.

Explosion data:

Sensitivity to mechanical impact: Not available

Sensitivity to static discharge: Not available

Special firefighting procedures: As for surrounding fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear appropriate protective equipment.

Environmental precautions: Prevent from entering sewers, waterways or low areas.

Methods for cleaning up: Isolate hazard area and restrict access. Small spills: soak up with inert 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

Handling: Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material.

Storage: Keep out of reach of children. Keep container tightly closed. Store in a cool, dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: Provide exhaust ventilation to keep airborne levels below recommended exposure limits.

Respiratory protection: If exposure exceeds occupational exposure limits, use an appropriate NIOSH approved respirator

Eye protection: Chemical goggles. Wear a face shield if splashing hazards exists.

Other protection: Wear protective clothing as necessary to prevent skin contact.

Exposure limits:

INGREDIENT	ACGIH	OSHA	Other
methanol	CAD AB OEL 200 ppm (262mg/m ³)		
isopropanol	TLV-TWA 400 ppm		
ethylene glycol	TLV CEIL: 100mg/m ³ 8 hours		
ethyl ether	TLV-TWA 400 ppm		

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid	Solubility in water:	Complete
Boiling point:	Not available	Vapour pressure:	Not available
Vapour density:	Not available	Evaporation rate:	Not available
Freezing point:	Not available	Odour threshold:	Not available
Sp. Gravity:	0.8114	pH:	7.7
Appearance & odour:	clear, colourless liquid with alcohol odour		

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions of instability: Not available

Incompatibility: () Water (X) Oxidizers (X) Acid (X) Base () Other

Conditions of reactivity: Not available

Hazardous decomposition products: Not available

11. TOXICOLOGICAL PROPERTIES

POTENTIAL ACUTE HEALTH EFFECTS

Inhalation: Causes irritation and may cause weakness, dizziness, slurred speech, drowsiness, unconsciousness; and in severe cases of overexposure, coma and death.

Ingestion: Toxic if swallowed. Causes headache, weakness, confusion, dizziness, loss of coordination, fainting, nausea and vomiting, increased heart rate, decreased blood pressure, difficulty breathing and seeing, pulmonary edema, unconsciousness, convulsions, collapse and coma. Severe poisoning may cause death.

Eye contact: May cause mild to severe irritation such as stinging, tearing, redness and swelling of the eyes.

Skin contact: May cause skin irritation.

Skin absorption: Not available

POTENTIAL CHRONIC HEALTH EFFECTS:

Inhalation: Repeat or prolonged exposure may cause damage to lungs.

Ingestion: Not available
Eye contact: Not available
Skin contact: Repeated skin exposure may produce local skin destruction or dermatitis.
Skin absorption: Not available

Irritancy of product: See WHMIS criteria
Sensitization of product: Not available
Carcinogenicity: IARC (1, 2A or 2B) No known significant effects.
ACGIH: (A1, A2 or A3) No known significant effects.
Reproductive toxicity: No known significant effects.
Teratogenicity: No known significant effects.
Mutagenicity: No known significant effects.
Synergistic product: Not available

HAZARDOUS INGREDIENTS	CAS NO.	TOXICITY DATA
methanol	67-56-1	LDL0 oral human: 300 mg/kg LD50 oral rabbit: 12,800 mg/kg LC50 inhalation rat: 64,000 ppm/4H
isopropanol	67-63-0	LD50 oral rat: 5045 mg/kg LD50 dermal rabbit: 5030-7900 mg/kg
ethylene glycol	107-21-1	LD50 oral rat: 4700 mg/kg LD50 dermal rabbit: 9530 mg/kg
ethyl ether	60-29-7	LD50 oral rat: 1215 mg/kg LD50 dermal rabbit: 360 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicological information: Not available
Other information:

13. DISPOSAL CONSIDERATIONS

Waste disposal: Disposal of all waste must be done according to local, provincial and federal regulations.

14. TRANSPORT INFORMATION

TDG classification: FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL, ISOPROPANOL, ETHYL ETHER); Class 3 (6.1); UN 1992; PG II

15. REGULATORY INFORMATION

WHMIS:

B2	Flammable Liquid
D1B	Toxic Material
D2A	Other Toxic Effects

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

16. PREPARATION INFORMATION

Prepared by: Technical Services Department, Ostrem Chemical Co. Ltd., Ph: (780) 440-1911