

SAFETY DATA SHEET

1. Product And Company Identification

SDS ID: SDS526
 PRODUCT NAME: Prestone Ice and Frost Shield
 PRODUCT NUMBER: AS246, 70912
 FORMULA NUMBER: 2265-38-A, 2287-02B, 2296-157A

MANUFACTURER:
 Prestone Products Corporation
 Danbury, CT 06810-5109

CANADIAN OFFICE:
 FRAM Group (Canada), Inc.
 Mississauga, Ontario L5L 3S6

MEDICAL EMERGENCIES AND ALL OTHER INFORMATION PHONE NUMBER:

(800)890-2075 (in the US)
 (800)668-9349 (in Canada)

TRANSPORTATION EMERGENCY PHONE NUMBER (Chemical Spills and Transport Accidents only):

CHEMTREC 1-800-424-9300 (in the US)
 CANUTEC (613)996-6666 (in Canada)

SDS DATE OF PREPARATION/REVISION: 05/20/13

PRODUCT USE: Automobile windshield deicer – consumer product
 RESTRICTIONS ON USE: None identified

2. Hazards Identification

GHS Classification:

Health	Environmental	Physical
Acute Toxicity (Oral) Category 3 Acute Toxicity (Dermal) Category 3 Acute Toxicity (Inhalation) Category 3 Specific Target Organ Toxicity – Single exposure Category 1	None	Flammable Liquid Category 2

Label Elements



DANGER! Contains Methyl Alcohol (Methanol)
 H225 Highly flammable liquid and vapour.
 H301 Toxic if swallowed
 H311 Toxic in contact with skin.
 H331 Toxic if inhaled
 H370 Causes damage to eyes and central nervous system.

Prevention:

P210 Keep away from heat, sparks, open flames, and hot surfaces. - No smoking.
 P233 Keep container tightly closed.

P261 Do not breathe mist or vapors.
P264 Wash exposed skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves, protective clothing, and eye protection.

Response:

P301 + 310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P330 Rinse mouth.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use water fog, carbon dioxide, alcohol foam or dry chemical to extinguish.

Storage:

P403 + P325 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 Dispose of contents and container in accordance with local and national regulations.

3. Composition/Information On Ingredients

Component	CAS No.	Amount
Methyl Alcohol (Methanol)	67-56-1	40-70%
Propylene Glycol	57-55-6	15-40%
Silane	Proprietary Mixture	0-1.5%

The exact concentrations are a trade secret.

4. First Aid Measures

INHALATION: Remove the victim to fresh air. If breathing has stopped administer artificial respiration. If breathing is difficult, have medical personnel administer oxygen. Get immediate medical attention.

SKIN CONTACT: Remove contaminated clothing. Immediately wash contacted area thoroughly with soap and water. If irritation persists, get medical attention.

EYE CONTACT: Immediately flush eyes with large amounts of water for 15 minutes. Get medical attention if irritation persists.

INGESTION: Seek immediate medical attention. Immediately call local poison control center or go to an emergency department. Never give anything by mouth to or induce vomiting in an unconscious or drowsy person.

MOST IMPORTANT SYMPTOMS: Flammable liquid! Poisonous if swallowed. Methyl Alcohol may be absorbed through the skin in harmful amounts. Inhalation may cause headache, dizziness, drowsiness, nausea, visual impairment, narcosis and unconsciousness.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED: Seek immediate medical attention if swallowed. Immediate medical attention may be required for long term inhalation and skin exposures.

NOTES TO PHYSICIAN: The combination of visual disturbances, metabolic acidosis and an osmol gap is evidence of methanol poisoning. Ethanol is antidotal and its early administration may block the formation of toxic metabolites of methanol. The objective is to rapidly achieve and maintain a blood ethanol level of approximately 100 mg/dl by giving a

loading dose of ethanol followed by a maintenance dose. Intravenous administration of ethanol is the preferred route. Ethanol blood levels should be checked frequently. Hemodialysis may be required. Treat acidosis with intravenous sodium bicarbonate. 4-Methyl pyrazole (Fomepizole(r)), a potent inhibitor of alcohol dehydrogenase, has been used therapeutically to decrease the metabolic consequences of methanol poisoning. Fomepizole is easier to use clinically than ethanol, does not cause CNS depression or hypoglycemia and requires less monitoring than ethanol. Folic acid may also be administered to enhance the metabolism of formic acid, the toxic metabolite of methanol.

5. Firefighting Measures

SUITABLE EXTINGUISHING MEDIA: Use water fog, carbon dioxide, alcohol foam or dry chemical. Cool fire exposed containers with water.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Highly Flammable liquid. Methanol-water mixtures will burn unless very dilute. Flame is invisible in daylight. Vapors are heavier than air and may flow along surfaces to distant ignition sources and flashback. Burning may produce carbon monoxide and carbon dioxide, aldehydes, ketones, organic acids and hydrocarbon fragments.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHERS: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

6: Accidental Release Measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Eliminate all ignition sources. Ventilate area. Wear appropriate protective clothing and equipment (See Section 8).

METHODS AND MATERIALS FOR CONTAINMENT/CLEANUP: Collect with absorbent material and place in a container suitable for flammable waste.

7. Handling and Storage

PRECAUTIONS FOR SAFE HANDLING:

Flammable liquid! May be fatal or cause blindness if swallowed! Do not swallow. Do not eat, drink or smoke when using this product. Do not breathe mists or vapors. Use only outdoors or in a well-ventilated area. Avoid eye and skin contact. Wash exposed skin thoroughly after handling. Wear appropriate protective clothing and equipment (See Section 8). Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Keep away from heat, sparks, open flames and all other sources of ignition. Keep container tightly closed. Store locked up in a cool, well ventilated area away from oxidizers.

NFPA Classification IB.

8. Exposure Controls / Personal Protection

EXPOSURE GUIDELINES

CHEMICAL	EXPOSURE LIMIT
Methyl Alcohol (Methanol)	200 ppm TWA OSHA PEL 200 ppm TWA ACGIH TLV skin 250 ppm STEL ACGIH TLV

Propylene Glycol	None Established-OSHA PEL 10 mg/m3 AIHA WEEL
Silane	None Established

APPROPRIATE ENGINEERING CONTROLS: Use general ventilation or local exhaust as required to maintain exposures below the occupational exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: For operations where the TLV is exceeded a NIOSH approved supplied air respirator or positive pressure self-contained breathing apparatus is recommended. Organic vapor cartridge respirators are not recommended for methanol vapor exposures. Equipment selection depends on contaminant type and concentration. Select and use in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

GLOVES: Chemical resistant gloves such as butyl rubber or Viton where contact is possible.

EYE PROTECTION: Splash-proof goggles.

OTHER PROTECTIVE EQUIPMENT/CLOTHING: Appropriate protective clothing as needed to minimize skin contact.

9. Physical and Chemical Properties

APPEARANCE:	Clear, colorless liquid	ODOR:	Slight
ODOR THRESHOLD:	Mean for methanol is 160-690 ppm.	pH:	Not determined
MELTING/FREEZING POINT:	<-94°F (<-70°C)	BOILING POINT/RANGE:	159°F (70.6°C)
FLASH POINT:	55°F (13°C)	EVAPORATION RATE:	Not determined
FLAMMABILITY (SOLID, GAS)	Not Applicable	FLAMMABILITY LIMITS:	LEL: 2.6 % (propylene glycol) UEL: 36% (Methanol)
VAPOR PRESSURE:	96 mmHG @ 20°C	VAPOR DENSITY:	>1
RELATIVE DENSITY:	0.8712	SOLUBILITIES	Water: 99%
PARTITION COEFFICIENT (n-octanol/water)	Not determined	AUTOIGNITION TEMPERATURE:	Not determined
DECOMPOSITION TEMPERATURE:	Not determined	VISCOSITY:	Not determined

10. Stability and Reactivity

REACTIVITY: Normally unreactive

CHEMICAL STABILITY: Stable

POSSIBILITY OF HAZARDOUS REACTIONS: Reaction with strong oxidizers will generate heat.

CONDITIONS TO AVOID: Heat, sparks, flames and all other sources of ignition.

INCOMPATIBLE MATERIALS: Strong bases, strong acids, strong oxidizing agents and materials reactive with hydroxyl compounds.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide.

11. Toxicological Information

POTENTIAL HEALTH EFFECTS:

ACUTE HAZARDS:

INHALATION: May cause irritation of the nose and throat. High vapor concentrations may produce nausea, vomiting, headache, dizziness, drowsiness, tingling, numbness and shooting pains in the hands and forearms, and visual disturbances.

SKIN CONTACT: Prolonged contact with the skin may cause redness and defatting of the skin and absorption of harmful amounts of methanol.

EYE CONTACT: Liquid, vapors or mist may cause discomfort in the eye with persistent conjunctivitis, seen as slight excess redness or conjunctiva. Serious corneal injury is not anticipated.

INGESTION: Contains methanol. May cause abdominal discomfort or pain, nausea, vomiting, dizziness, drowsiness, headache, malaise, blurring of vision, leg cramps, confusion, drunken behavior, convulsions and coma. Visual effects from methanol include blurred vision, double vision, changes in color perception, restriction of visual fields and complete blindness. Cardiac failure and pulmonary edema may develop. With massive overdoses of methanol, liver, kidney and heart muscle injury have been described. There may be a delay of several hours between swallowing methanol and the onset of signs and symptoms. Ingestion of moderate quantities of methanol also produces metabolic acidosis. 60-200 ml of methanol is a fatal dose for most adults. Ingestion of as little as 10 ml may cause blindness.

CHRONIC EFFECTS: Prolonged or repeated inhalation exposure may produce signs of central nervous system involvement, including nausea, vomiting, headache, ringing in the ears, dizziness, vertigo, cloudy and double vision. Prolonged overexposure at levels of 800-1000 ppm may result and in severe eye damage. Prolonged or repeated skin contact may cause skin sensitization and an associated dermatitis in some individuals.

CARCINOGENICITY LISTING: None of the components of these products is listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH or OSHA.

ACUTE TOXICITY VALUES:

Methanol: LD50 Oral Rat: 9100 mg/kg
LD50 Skin Rabbit: 15,940 mg/kg;
LC50 Inhalation Rat: 145,000 ppm/1hr

Propylene Glycol: LD50 Oral Rat: >2000 mg/kg;
LD50 Skin Rabbit: >2000 mg/kg

12. Ecological Information

ECOTOXICITY:

Methanol: LC50 Fathead minnows, 29,400 mg/L/96 hr;
EC50 Daphnia magna, >10,000 mg/L/24 hr
Propylene Glycol: EC50: Daphnia magna, 43,500 mg/L/48 hr;
LC50: Pimephales promelas, 46,500 mg/L/96 hr

PERSISTENCE AND DEGRADABILITY:

Methanol: Readily biodegradable

Propylene glycol: Achieved 64% of its theoretical BOD using a sewage inoculum and a 5 day incubation period

BIOACCUMULATIVE POTENTIAL:

Methanol: BCF of <10 suggesting that the potential for bioaccumulation is low.

Propylene Glycol: Has an estimated BCF of 3 suggests the potential for bio-concentration in aquatic organisms is low.

MOBILITY IN SOIL:

Methanol: Expected to have very high mobility in soil.

Propylene Glycol: Expected to have very high mobility in soil.

OTHER ADVERSE EFFECTS: None known

13. Disposal Considerations

Dispose of product as hazardous waste (ignitable) in accordance with all local, state/provincial and federal regulations.

14. Transport Information

U.S. DOT HAZARD CLASSIFICATION (For Ground Shipments Only)

Containers Not Over 1 Liter (0.3 gal.):

PROPER SHIPPING NAME: Consumer Commodity

TECHNICAL NAME: None

UN NUMBER: None

HAZARD CLASS/PACKING GROUP: ORM-D

LABELS REQUIRED: None

Containers Over 1 Liter: UN1230, Methanol Solution, 3, PG II

DOT MARINE POLLUTANTS: This product does not contain Marine Pollutants as defined in 49 CFR 171.8.

IMDG CODE SHIPPING CLASSIFICATION

Only containers not over 1 Liter can be shipped as Limited Quantities

DESCRIPTION: UN1230, Methanol Solution, 3 (6.1), PG II, FP 13 C, LTD QTY

ID NUMBER: UN1230

HAZARD CLASS: 3 (6.1)

PACKING GROUP: II

LABELS REQUIRED: None

PLACARDS REQUIRED: LIMITED QUANTITIES Mark on Cargo Transport Containers

Note: This product is exempted from marking the UN number (see IMDG Code 3.4.7)

CANADIAN TDG CLASSIFICATION (For Ground Shipments Only)

Containers Not Over 1 Liter:

PROPER SHIPPING NAME: Consumer Commodity (Limited Quantity)

TECHNICAL NAME: None

CLASS: None

UN NUMBER: None

PACKING GROUP: None

Containers Over 1 Liter: UN1230, Methanol Solution, 3 (6.1), PG II

IATA/ICAO SHIPPING CLASSIFICATION:

These products are not suitable for shipment by air.

15. Regulatory Information

EPA SARA 311/312 HAZARD CLASSIFICATION: Acute health, chronic health, fire hazard

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Methanol 67-56-1 40-70%

PROTECTION OF STRATOSPHERIC OZONE: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for the product, based on the RQ for Methanol (70% maximum) of 5,000 lbs, is 7,142 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

CALIFORNIA PROPOSITION 65: This product contains the following chemicals regulated under California Proposition 65:
Methanol 67-56-1 40-70%

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CANADIAN ENVIRONMENTAL PROTECTION ACT: All of the ingredients are listed on the Canadian Domestic Substances List.

CANADIAN WHMIS CLASSIFICATION: Class D - Division 2 - Subdivision B - (A toxic material causing other chronic effects), Class B - Division 2 (Flammable Liquid)



CANADIAN WHMIS SYMBOL:

This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS): All of the ingredients are listed on the EINECS inventory.

AUSTRALIA: All of the ingredients of this product are listed on the Australian Inventory of Chemical Substances.

KOREA: All of the ingredients of this product are listed on the Korean Existing Chemicals List (KECL).

CHINA: All of the ingredients of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

PHILIPPINES: All of the ingredients of this product are listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS).

16. Other Information

NFPA RATING (NFPA 704) - FIRE: 3 HEALTH: 2 INSTABILITY: 0

REVISION SUMMARY: All Sections – conversion to Hazcom 2012 classification and labeling and format.

SDS Date of Preparation/Revision: May 20, 2013

This SDS is directed to professional users and bulk handlers of the product. Consumer products are labeled in accordance with Federal Hazardous Substances Act regulations.

While Prestone Products Corporation believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data are not to be taken as a warranty or representation for which Prestone Products Corporation assumes legal responsibility. They are offered solely for your consideration, investigation and verification. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

If more information is needed, please contact:

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