Prestone(R) De-Icer AS242 H1BAK1423

MATERIAL SAFETY DATA SHEET

Effective Date: 1-24-91

Prestone(R) De-Icer

Revision Date: 7-19-00 AS242

Code: PPC

Section 1 - Product and Company Identification

PRODUCT NAME: Prestone(R) De-Icer AS242

MANUFACTURER'S NAME:

Prestone Products Corporation

39 Old Ridgebury Road Danbury, CT 06810-5109 EMERGENCY TELEPHONE NUMBER

(203)830-7865

MISCELLANEOUS INFORMATION

	Section 2	- Hazardous	Ingredients	
MATERIAL	Q.	CAS #	EXPOSURE LIMITS	SOURCE
Ethylene glycol	5-9	107-21-1	none established 50 ppm C (vapor)	OSHA ACGIH
Methanol	70-80	67-56-1	200 ppm (TWA) 200 ppm skin (TWA)	OSHA ACGIH
Propylene glycol	5-9	57-55-6	none established	OSHA /ACGIH
Carbon Dioxide	105	124-38-9	5000 ppm (TWA)	OSHA /ACGIH
			30,000 ppm (STEL)	ACGIH

NON-HAZARDOUS INGREDIENTS > 1%

Water

5-9 7732-18-15

None of the ingredients in this product are listed as a carcinogen (or suspected carcinogen) by IARC, NTP or OSHA.

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Section 3 - Hazards Indentification

EFFECTS OF SINGLE OVEREXPOSURE

SWALLOWING: Contains methanol and ethylene glycol. Methanol may cause nausea, abdominal pain, vomiting, shortness of breath, fatigue and leg cramps. Nervous system effects include: headache, confusion, drunken behavior, central nervous system depression, coma and death. Visual

effects from methanol include blurred vision, double vision, changes in color perception, restriction of visual fields and complete blindness. With massive overdoses, 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. Onset of symptoms may be delayed up to 48 hours. 60-200 ml. is a fatal dose for most adults. Ingestion of as little as 10 ml. may cause blindenss. Ethylene glycol, in addition to sharing many of the gastrointestinal and mervous system effects of methanol, also causes metabolic acidosis. In addition, severe kidney damage and possible kidney failure follows the swallowing of large volumes of ethylene glycol. Cardiac failure and pulmonary edema may develop.

- SKIN ABSORPTION: Prolonged and widespread contact with skin may result in the absorption of harmful amounts of methanol.
- INHALATION: Methanol may cause dizziness, drowsiness, disturbance of vision, and tingling, numbness and shooting pains in the hands and forearms. Ethylene glycol may cause irritation of the nose and throat with headache, particularly from mists. High vappor concentration caused, for example, by heating the material in an enclosed and poorly ventilated workplace, may produce nausea, vomiting, headache, dizziness and irregular eye movements.
- SKIN CONTACT: Prolonged contact with the skin to methanol may cause reddening and defatting of the skin.
- EYE CONTACT: May cause discomfort with mild redness and swelling of the conjunctiva and possible temporary superficial injury of the cornea.

EFFECTS OF REPEATED OVEREXPOSURE

Long term repeated overexposure to methanol vapor concentrations of 3000 ppm or greater may allow a cumulative effect to occur with resulting nausea, vomiting, headache, ringing in the ears, insomnia, trembling, unsteady gait, vertigo, clouded and double vision. Liver and/or kidney injury may occur. Prolonged overexposure at levels of 800-1000 ppm may result in severe eye damage in some people. Inhalation of ethylene glycol mist may produce signs of central nervous system involvement, particularly dizziness and nystagmus.

OTHER EFFECTS OF OVEREXPOSURE

Repeated skin contact with this product may, in a very small proportion of cases, cause sensitization with the development of alergic contact dermatitis.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE

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Section 3 - Hazards Indentification - Continued

Due to its defatting properties, methanol may aggravate an existing skin

condition, e.g., aczema. Due to its liver and kidney injuring potential, the product may exacerbate exisitng liver and/or kidney diseases.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARDS Animal studies suggest that ethylene glycol at high doses is to be regarded as an animal teratogen. The major route for producing developmental toxicity is perorally. Exposure to high aerosol concentrations is only minimally effective in producing developmental toxicity. Cutaneous application is ineffective in producing developmental toxicity. There is currently no available information to suggest that ethylene glycol has caused birth defects in humans.

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Section 4 - First Aid Measures

EMERGENCY AND FIRST AID PROCEDURES

SWALLOWING: Give two glasses of water and induce vomiting immmediately. Never give anything by mouth to an unconscious person. Get medical help urgently by calling a physician, emergency room or poison control center. Ethanol (whiskey, brandy, ect.) in an effective antidote. Medical personnel may instruct you to administer ethanol to the patient depending on the number of variables such as the amount of product swallowed, time elapsed since ingestion and time needed to get patient to an emergency medical facilty. (See Notes to Physician below). Take patient and container to nearest emergency medical facilty.

- SKIN: Remove contaminated clothing. Immediately wash all affected and exposed areas with soap and copious amounts of water. If irritation or redness develops and persists, seek medical attention.
- INHALATION: If systoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped, and seek immediate medical attention.
- EYES: Exposed eyes should be immediately flushed with copious amounts of clean water, using a steady stream for a minimum of 15 minutes. If irritation, pain, swelling or tearing persist, seek medical attention.
- NOTES TO PHYSICIAN: The combination of visual disturbances, metabolic acidoses and formic acid in the urine is evidence of methanol poisoning. The principal toxic effects of ethylene glycol when swallowed, are kidney damage and metabolic acidosis.

Ethanol is antidotal, and its early administration may block the formation of toxic metabolites of both methanol and ethylene glycol. The objective is to rapidly achieve and maitain a blood ethanol level of 100 mg/ by giving a loading dose of ethanol followed by maintenance dose. Intravenous administration is the preferred route. The suggested loading dose is approximately 0.8 g/kg of 100% ethanol

which is the equivalent of 7.6 to 10 ml/kg of 10% ethanol which is equivalent to 104 ml/kg/hr of IV 10% ethanol or 0.15 ml/kg/hr orally of 95% ethanol. Ethanol blood levels should be checked frequently.

Hemodialysis is highly effective at removing methanol, ethylene glycol and their metabolites, and may be indicated depending on the clinical situation and methanol and/or ethylene glycol blood levels. Adjustment in the ethanol infusion rate will need to be made during hemodialysis. Systemic acidoses can be treated with IV sodium bicarbonate solution.

Additional therapeutic modalities which may decrease the adverse consequences of motabolism are administration of thiamine and pyridoxine for ethylene glycol and folates for methanol poisoning. 4-Methylpyrazole, a potent inhibitor of alchohol dehydrogenase, has been suggested as an antidote for both ethylene glycol and methanol. It is currently being used clinically in some European countries, but is

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Section 4 - First Aid Measures - Continued

not yet available for general clinical use in America.

Section 5 - Firefighting Measures

FLASH POINT: Tag Open Cup: 69 Deg. F(21 Deg. C)

Pensky-Martens Closedd Cup: 58 Deg. F (14 Deg. C)

AEROSOL FLAME EXTENSION: Greater than 18 inches

FLASHBACK: None

AEROSOL FIRE PROTECTION LEVEL: Level 2 Aersol (NFPA 30B)

FLAMMABLE LIMITS IN AIR, % BY VOLUME: LOWER: 3.2 (ETHYLENE GLYCOL)

UPPER: 36 (METHANOL)

AUTOIGNITION TEMPERATURE: Not Determined

EXTINGUISHING MEDIA: Foam, alcohol foam, carbon dioxide or dry chemical for small fire. Water fog for large fire.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: Do not incinerate aerosol container or store container in area above 120 Deg. F(49 Deg. C). Cans of packaged product may rupture if exposed to heat.

Section 6 - Environmental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Wear appropriate

personal protective equipment and remove all sources of ignition. Collect material for disposal in a container suitable for flammable waste.

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Section 7 - Handling and Storage

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

- * DANGER: Flammable
- * May be fatal or cause blindness if swallowed.
- * Do not swallow.
- * Do not breathe vapors. Use only with adequate ventilation.
- * Avoid contact with eyes, skin, and clothing.
- * Wash exposed skin with soap and water.
- * Keep away from sources of heat, sparks, flame, and out of direct sunlight.
- * Do not expose to tempetures above 120F.

OTHER PRECAUTIONS: - Obeserve all requirements of plant, company or government regulations.

- Keep out of reach of children

-Section 8 - Exposure Controls/Personal Protection

(for manufacturing and bulk spill cleanup)

RESPIRATORY PROTECTION: For operations where the TLV may be exceeded, a NIOSH/MSHA approved respirator with an organic vapor cartrdige and a dust/mist prefilter or a supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industiral hygiene practice. For firefighting, use self-contained breathing apparatus.

VENTILATION: General ventilation should be adequate for normal use at ambient temperatures. For operations where the material is heated or misted and the TLV may be exceeded, forced ventilation such as local exhaust may be needed to maintain exposure levels below applicable limits.

PROTECTIVE GLOVES: Chemical resistant, such as neoprene or PVC coated, gloves recommended where needed to prevent prolonged/repeated skin contact.

EYE PROTECTION: Splash-proof goggles recommended.

OTHER PROTECTIVE EQUIPMENT: Protective clothing if needed to avoid prolonged/repeated skin contact. Suitable washing and eye flushing facilities should be available in the work area. Contaminated clothing should be removed and laundered before re-use.

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            Section 9 - Physical and Chemical Properties
BOILING POINT, 760mm Hg
                          : 158 Deg. F
: <-100 Deg. F

vapor Density (Air = 1) : greater than 1

Vapor PRESSURE (AT 68 Deg. F) : 47 mm Ha

AEROSOL CONTAINER PRESSURE

(at70 Dec. T)
VOLATILES BY VOLUME
                          : 100%
SOLUBILITY IN WATER, % BY Wqt. : 100%
EVAPORATION RATE (Butyl Acetate=1): 6
APPEARANCE AND ODOR
                          : clear colorless liquid, alcohol odor
ph
                           : not determined
VISCOSITY
                           : not determined
Section 10 - Stability and Reactivity
STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: Heat, sparks, and open flames.
INCOMPATIBILITY (Materials to Avoid): Normally none.
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: Burning may produce CO or
               Section 11 - Toxicological Information
Not available.
Section 12 - Ecological Information
Not available.
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               Section 13 - Disposal Considerations
WASTE DISPOSAL METHOD: Waste material is a RCRA hazardous waste due to
    ignitability. Incineration or land filling should be carried out in
    accordance with applicable RCRA federal, state, and local regulations.
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Section 14 - Transport Information

HAZARDOUS MATERIALS : Consumer commodity

HAZARD CLASSIFICATION: ORM-D IDENTIFICATION NUMBER: None LABEL(S) REQUIRED: None

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

IMDG Code Shipping Classification

Description: Aerosol Product, Class 9, UN1950, FP 14 C, IMDG Page 9022

ID Number : UN1950
Hazard Class : 9
Packing Group : None
Labels Required : None

Placards Required: Class 9 if FULL CONTAINER of this product

Section 15 - Regulatory Information

EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW INFORMATION

This product contains the following chemicals subject to SARA TITLE III, Section 313 reporting:

CHEMICAL	NAME	CAS #	WEIGHT %
Methanol	Glycol	67-56-1	70-80
Ethylene		107-21-1	5-9

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Section 16 - Other Information

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

While First Brands 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 First Brands Corporation assumes legal responsibility. They are offered soley 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: Stan Prusakowski

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