

MATERIAL SAFETY DATA SHEET

SNAP® WINDSHIELD SPRAY DE-ICER

1. PRODUCT AND COMPANY IDENTIFICATION

MSDS Number: 13666

Version Date: 09/06/02

Product Name: SNAP® WINDSHIELD SPRAY DE-ICER

Product Use: Windshield de-icer

Synonyms: S560

Company Information

SOPUS Products
P.O. Box 4427
Houston, TX 77210-4427
USA

Phone Numbers

Medical Emergency: 1-800-546-6040
Transportation Emergency (USA): 1-800-424-9300
Transportation Emergency (International):
1-703-527-3887 (Call Collect)
MSDS Assistance: 1-800-546-6227
Fax On Demand: 1-800-546-6227
Technical Assistance: 1-800-458-4998
Customer Service: 1-800-468-8397
Fax Number: 713-217-3181
Internet Address: www.MSDS.PZLQS.com

2. COMPONENT INFORMATION

Component	CAS No.	Weight Percent Range	Hazardous in Blend
WATER	7732-18-5	40 - 45	No
METHYL ALCOHOL	67-56-1	45 - 50	Yes
ETHYLENE GLYCOL	107-21-1	1 - 5	Yes
CARBON DIOXIDE	124-38-9	1 - 5	Yes

This product meets the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Hazards:

Flammable/Combustible — Acute Toxin X Chronic Toxin X Carcinogen —
Pressure X Reactive — Exposure Limit X Target Organ — Other —

Other: No information available

3. HAZARDS IDENTIFICATION

Emergency and Hazards Overview

DANGER: (SKULL AND CROSSBONES SYMBOL) POISON! MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. VAPOR HARMFUL.
CONTENTS UNDER PRESSURE.

NFPA Ratings: Health 1 Flammability 2 Reactivity 0

Primary Route of Exposure: Skin X Inhalation X Eye X

Health Effect Information

Eye Contact: Avoid eye contact. May be irritating to the eyes upon direct contact. See Section 11 - Toxicological Information.

Skin Contact: Avoid skin contact. Single, short exposures, as expected with consumer use of this product, are expected to be practically non-irritating to the skin. Prolonged or repeated skin contact may result in dryness, chapping, and reddening. May be absorbed through skin. See Section 11 - Toxicological Information.

MATERIAL SAFETY DATA SHEET

MSDS Number: 13666

SNAP® WINDSHIELD SPRAY DE-ICER

Page 2 of 8

Inhalation: Avoid inhalation of mists or vapors. Acute and chronic overexposures may be irritating to the respiratory tract. Inhalation of high concentrations of this product can cause central nervous system depression and narcosis. When high concentrations are inhaled, human signs may include a reddening of the face and a feeling of increased body heat, in addition, disturbed vision, dizziness, tremors, salivation, cardiac stress, drowsiness, dullness, numbness, weakness, headache, nausea, and confusion, as well as respiratory difficulties may be apparent. Intentional misuse by deliberately concentrating and inhaling this product can be harmful or fatal. See Section 11 - Toxicological Information.

Ingestion: Ingestion is unlikely for aerosol products. Do not ingest. Harmful or fatal if swallowed. Can cause reversible or permanent blindness. Visual symptoms include eye pain, blurred vision and constriction of visual fields. Can cause central nervous system (CNS) depression if ingested. Ingestion of large quantities can lead to a metabolic acidosis, which can be fatal if untreated. Ingestion may result in lung aspiration. Aspiration may lead to chemical pneumonitis which is characterized by pulmonary edema and hemorrhage and may be fatal. See Section 11 - Toxicological Information.

Medical Conditions Aggravated by Exposure: Drying and chapping may make the skin more susceptible to other irritants, sensitizers and disease.

Other: No information available

4. FIRST AID INFORMATION

Eye Contact: Immediately flush eyes with large amounts of water and continue flushing until irritation subsides. If irritation persists, seek medical attention.

Skin Contact: Remove contaminated clothing. Wash contaminated area thoroughly with soap and water. If redness or irritation occurs and persists, seek medical attention.

Inhalation: If victim exhibits signs of vapor intoxication remove to fresh air. If discomfort persists seek medical attention. If breathing has stopped or is irregular, administer artificial respiration and supply oxygen if it is available. If victim is unconscious, remove to fresh air and seek immediate medical attention.

Ingestion: Ingestion is unlikely for aerosol products. If large quantity is ingested and if person is conscious, give large quantities of water immediately. Seek immediate medical attention. If vomiting occurs lower head below knees to avoid aspiration.

Notes to Physician: No information available

Other: No information available

5. FIRE AND EXPLOSION INFORMATION

Flammable Properties

Flash Point (aerosol concentrate): 159.1 F, 70.6 C

Test Method: ASTM D-93 (P.M.C.C.)

Flame Extension: 0", no flashback

Test Method: CPSC 1500.45

Flammable Limits in Air

Upper Percent: No data available

Lower Percent: No data available

Autoignition Temperature: No data available

Test Method: No information available

NFPA Classification: Level I Aerosol (NFPA 30B)

Extinguishing Media: Use water spray (fog), dry chemical, foam, or carbon dioxide.

MATERIAL SAFETY DATA SHEET

SNAP® WINDSHIELD SPRAY DE-ICER

Fire Fighting Measures

Special Fire Fighting Procedures and Equipment: Water may be ineffective but can be used to cool containers exposed to heat or flame to prevent vapor pressure buildup and possible container rupture.

Unusual Fire and Explosion Conditions: Dense smoke may be generated while burning. Carbon monoxide, carbon dioxide, and other oxides may be generated as products of combustion.

Hazardous Combustion By-Products: None

Other: No information available

6. ACCIDENTAL RELEASE MEASURES

Personnel Safeguards: Remove all sources of ignition. Provide adequate ventilation during clean-up. Consult Health Effect Information in Section 3, Personal Protection Information in Section 8, Fire and Explosion Information in Section 5, and Stability and Reactivity Information in Section 10.

Regulatory Notifications: No notification required

Containment and Clean up: No special cleanup procedures are necessary.

Other: No information available

7. HANDLING AND STORAGE INFORMATION

Handling: All ignition sources in the area should be controlled. See NFPA 30B, Code for the Manufacture and Storage of Aerosol Products. Contents under pressure and can explode when exposed to heat or open flame. Caution!--Do not puncture or incinerate.

Storage: Do not transfer to unmarked containers. Store in a cool, well ventilated area in closed containers away from heat, sparks, open flame or oxidizing materials. Do not store at temperatures greater than 120 F.

Empty Container Warnings

Drums: Not applicable

Plastic: Not applicable

Other: No information available

8. EXPOSURE CONTROLS / PERSONAL PROTECTION INFORMATION**Exposure Limits and Guidelines**

Component	CAS No.	Exposure Limit
METHYL ALCOHOL	67-56-1	OSHA - PEL: TWA 200 ppm ACGIH - TLV: TWA 200 ppm ACGIH - TLV: STEL 250 ppm
ETHYLENE GLYCOL	107-21-1	ACGIH - TLV: Ceiling 50 ppm
CARBON DIOXIDE	124-38-9	OSHA - PEL: TWA 5000 ppm ACGIH - TLV: TWA 5000 ppm ACGIH - TLV: STEL 30000 ppm

MATERIAL SAFETY DATA SHEET

MSDS Number: 13666

SNAP® WINDSHIELD SPRAY DE-ICER

Page 4 of 8

Personal Protective Equipment

Eye/Face Protection: Eye protection is not required under conditions of normal use. If material is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety goggles.

Skin Protection: No skin protection is required for single, short duration exposures.

Respiratory Protection: Respiratory protection is not required under conditions of normal use. If excessive levels of mists or vapors are generated while using this product, use an organic vapor respirator. All respirators must be NIOSH certified.

Personal Hygiene: Always wash hands and face with soap and water before eating, drinking, or smoking. Consumption of food and beverage should be avoided in work areas where this product is present.

Engineering Controls / Work Practices

Ventilation: General room ventilation is normally sufficient to prevent buildup of hazardous concentrations. If product is used in enclosed or confined spaces, adequate ventilation must be provided to prevent buildup of vapors or mists.

Other: No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Coarse white spray	
Odor: Alcohol	Vapor Pressure: 90 - 100 psig @ 68 F
Physical state: Liquid	Vapor Density (air=1): No data available
pH: No data available	Percent Volatile by Volume: > 40 %
Boiling Point: No data available	Volatile Organic Content: No data available
Melting Point: Not applicable	Molecular Weight: Not applicable
Specific Gravity: 0.9	Average Carbon Number: Not applicable
Pour Point: No data available	Viscosity @ 100 F: No data available
	Viscosity @ 40 C: No data available
Solubility in Water: Soluble in water	
Octanol / Water Coefficient: Log K_{ow} = No data available	

10. STABILITY AND REACTIVITY INFORMATION

Chemical Stability: Stable

Conditions to Avoid: Keep away from heat, sparks, open flames and other ignition sources. Temperatures above 120 F.

Incompatible Materials to Avoid: May react with strong oxidizing agents.

Other: No information available

11. TOXICOLOGICAL INFORMATION

Primary Eye Irritation: Moderate in Draize test in rabbits (methanol).

Primary Skin Irritation: Moderate irritation in Draize test in rabbits (methanol).

Acute Dermal Toxicity: No information available

Subacute Dermal Toxicity: No information available

MATERIAL SAFETY DATA SHEET

MSDS Number: 13666

SNAP® WINDSHIELD SPRAY DE-ICER

Page 5 of 8

Dermal Sensitization: No information available

Inhalation Toxicity: LC50 (rat) = 64,000 ppm (4 hours) (methanol)

Inhalation Sensitization: No information available

Oral Toxicity: LD50 (rat) = 5628 mg/kg (methanol)

Mutagenicity: No information available

Carcinogenicity: Methanol is not considered to be carcinogenic by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or OSHA.

Reproductive and Developmental Toxicity: .

Teratogenicity: No information available

Immunotoxicity: No information available

Neurotoxicity: No information available

Other: No information available

12. ECOLOGICAL INFORMATION

Aquatic Toxicity: No information available

Terrestrial Toxicity: No information available

Chemical Fate and Transport: No information available

Other: No information available

13. DISPOSAL INFORMATION

Regulatory Information: Dispose of residual products and empty containers responsibly.

Waste Disposal Methods: Waste material may be landfilled or incinerated at an approved facility. Materials should be recycled if possible.

Other: No information available.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT)

Highway / Rail (Bulk): NOT APPLICABLE

Highway / Rail (Non-Bulk): CONSUMER COMMODITY, ORM-D

For US shipments, US DOT law requires the shipper to determine the proper shipping description of the material that is being shipped. The shipping information and description contained in this section may not be suitable for all shipments of this material, but may help the shipper determine the proper shipping description for a particular shipment.

MATERIAL SAFETY DATA SHEET

MSDS Number: 13666

SNAP® WINDSHIELD SPRAY DE-ICER

Page 6 of 8

International Information

Vessel: IMDG Regulated: X IMDG Not Regulated: --
Air: ICAO Regulated: X ICAO Not Regulated: --

Other: No information available

15. Regulatory Information

Regulatory Lists Searched: The components listed in Section 2 of this MSDS were compared to substances that appear on the following regulatory lists. Each list is numerically identified. See Regulatory Search Results below.

Health & Safety: 10 - IARC carcinogen, 11 - NTP carcinogen, 12 - OSHA carcinogen, 15 - ACGIH TLV, 16 - OSHA PEL, 17 - NIOSH exposure limit, 20 - US DOT Appendix A, Hazardous substances, 22 - FDA 21 CFR Total food additives, 23 - NFPA 49 or 325

Environmental: 30 - CAA 1990 Hazardous air pollutants, 31 - CAA Ozone depleters, 33 - CAA HON rule, 34 - CAA Toxic substance for accidental release prevention, 35 - CAA Volatile organic compounds (VOC's) in SOCOMI, 41 - CERCLA / SARA Section 302 extremely hazardous substances, 42 - CERCLA / SARA Section 313 emissions reporting, 43 - CWA Hazardous substances, 44 - CWA Priority pollutants, 45 - CWA Toxic pollutants, 46 - EPA Proposed test rule for hazardous air pollutants, 47 - RCRA Basis for listing - Appendix VII, 48 - RCRA waste, 49 - SDWA - (S)MCLs

International: 50 - Canada - WHMIS Classification of substance, 54 - Mexico - Drinking water - ecological criteria, 55 - Mexico - Wastewater discharges, 56 - US -TSCA Section (12)(b) - export notification

State Lists: 60 - CA - Proposition 65, 61 - FL - Substances, 62 - MI - Critical materials, 63 - MA - RTK, 64 - MA - Extraordinarily hazardous substances, 65 - MN - Hazardous substances, 66 - PA - RTK, 67 - NJ - RTK, 68 - NJ - Environmental hazardous substances, 69 - NJ - Special hazardous substances

Inventories: 80 - Canada - Domestic substances , 81 - European - EINECS, 82 - Japan - ENCS, 83 - Korea - Existing and evaluated chemical substances, 84 - US - TSCA , 85 - China Inventory

Regulatory Search Results:

CARBON DIOXIDE: 15, 16, 17, 22, 50, 61, 63, 65, 66, 67, 69, 80, 81, 82, 83, 84, 85

ETHYLENE GLYCOL: 15, 20, 23, 30, 33, 35, 42, 46, 50, 61, 63, 65, 66, 67, 68, 69, 80, 81, 82, 83, 84, 85

METHYL ALCOHOL: 15, 16, 17, 20, 22, 23, 30, 33, 35, 42, 47, 48, 50, 61, 63, 65, 66, 67, 68, 69, 80, 81, 82, 83, 84, 85

WATER: 80, 81, 83, 84, 85

U.S. TSCA Inventory: All components of this material are on the US TSCA Inventory.

SARA Section 313: Consumer products are not regulated under SARA, Title III, Section 313.

IARC: No information available

SARA 311 / 312 Categories

Acute: X Chronic: X Fire: -- Pressure: X Reactive: --
Not Regulated: --

Canadian WHMIS Classification

Class A - Compressed gas

Class D - Poisonous and infectious material, Division 1A, Very Toxic Material

Class D - Poisonous and infectious material, Division 2A, Very Toxic Material

MATERIAL SAFETY DATA SHEET

SNAP® WINDSHIELD SPRAY DE-ICER

European Union Classification**Hazard Symbols:**

Toxic / T / skull and crossbones in square.
"3" Aerosol

Risk Phrases:

R23/24/25: Toxic by inhalation, in contact with the skin and if swallowed.
R39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Safety Phrases:

S1/2: Keep locked up and out of the reach of children
S7: Keep container tightly closed.
S16: Keep away from sources of ignition - No smoking.
S45: In case of accident or if you feel unwell seek medical advice immediately ...(show the label where possible).

Other: No information available

16. OTHER INFORMATION**Health and Environmental Label Language**

Front Label:

DANGER (SKULL AND CROSSBONES SYMBOL) POISON. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. VAPOR HARMFUL. CONTENTS UNDER PRESSURE.

Read carefully other cautions on back.

Back Label:

DANGER: CONTAINS METHYL ALCOHOL. CANNOT BE MADE NON-POISONOUS.

Precautionary Measures: Do not drink or inhale. Use only in a well-ventilated area. Avoid eye contact. Keep away from heat and flame. Do not puncture or incinerate container. Do not store at temperatures above 120F.

First Aid: Ingestion: If swallowed, give one or two glasses of water. Then call physician, hospital emergency room or Poison Control Center for method to induce vomiting. Then get immediate medical attention. Eyes: Flush with water for 15 minutes and get prompt medical attention.

KEEP OUT OF REACH OF CHILDREN.

MSDS Revisions

Previous Version Date: 05/24/02

Previous Version Information

Revised Section 14 - Transportation Information.

Other

No information available

Prepared By:

SOPUS Products
P.O. Box 4427
Houston, TX 77210-4453 USA

MATERIAL SAFETY DATA SHEET

MSDS Number: 13666

SNAP® WINDSHIELD SPRAY DE-ICER

Page 8 of 8

Disclaimer of Warranty: The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. In many instances, especially when proprietary or trade secret materials are used, SOPUS Products must rely upon the hazard evaluation of such components submitted by that product's manufacturer or importer. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information, the results to be obtained from the use thereof, or that any such use do not infringe any patent. Since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.