

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens De-Icer
MSDS NO. 3282
Revision Date: 11/13/2007
Date Printed: 11/13/2007

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Johnsens De-Icer
Chemical Family: ALCOHOL
Synonyms: None
Emergency Telephone (24 hr.): CHEMTREC 1-800-424-9300

Supplier: Technical Chemical Company, P.O. Box 139, Cleburne, Texas 76033

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	OSHA TWA	OSHA STEL	OSHA SKIN
Methyl Alcohol 67-56-1	55-65	Not Listed	Not Listed	Not Listed
Ethylene Glycol 107-21-1	15-25	Not Listed	Not Listed	Not Listed
Propane 74-98-6	5-15	Not Listed	Not Listed	Not Listed
Butane 106-97-8	0-10	Not Listed	Not Listed	Not Listed
Isopropyl Alcohol 67-63-0	0-10	Not Listed	Not Listed	Not Listed
Iso-Butane 75-28-5	0-10	Not Listed	Not Listed	Not Listed

Component	Weight %	OSHA Z PEL	OSHA Z TWA	OSHA Z Ceiling
Methyl Alcohol 67-56-1	55-65	260 mg/m ³ 200 ppm	260 mg/m ³ 200 ppm	Not Listed
Ethylene Glycol 107-21-1	15-25	Not Listed	Not Listed	125 mg/m ³ 50 ppm
Propane 74-98-6	5-15	1800 mg/m ³ 1000 ppm	1800 mg/m ³ 1000 ppm	Not Listed
Butane 106-97-8	0-10	Not Listed	1900 mg/m ³ 800 ppm	Not Listed
Isopropyl Alcohol 67-63-0	0-10	980 mg/m ³ 400 ppm	980 mg/m ³ 400 ppm	Not Listed
Iso-Butane 75-28-5	0-10	Not Listed	Not Listed	Not Listed

Component	ACGIH TLV TWA	ACGIH TLV STEL	ACGIH TLV Ceiling
Methyl Alcohol 67-56-1	200 ppm	250 ppm	Not Listed
Ethylene Glycol 107-21-1	Not Listed	Not Listed	100 mg/m ³ Aerosol.
Propane 74-98-6	1000 ppm	Not Listed	Not Listed
Butane 106-97-8	1000 ppm	Not Listed	Not Listed
Isopropyl Alcohol 67-63-0	200 ppm	400 ppm	Not Listed
Iso-Butane 75-28-5	1000 ppm	Not Listed	Not Listed

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens De-Icer
MSDS NO. 3282
Revision Date: 11/13/2007
Date Printed: 11/13/2007

3. HAZARDS IDENTIFICATION

Emergency Overview:

Danger: Extremely flammable. Danger: Poison. Content under pressure. This material is an eye and skin irritant. Ingestion of even small amounts of methyl alcohol can cause blindness and death. Possible redness and defatting may result from prolonged skin exposure to this material. Ingestion can cause irreversible nervous system damage and death. Absorption through skin increases exposure. Gross inhalation overexposure may cause: respiratory track irritation, kidney damage, blood, liver damage, lung damage and central nervous system depression. Repeated exposure over TLV can cause blindness.

HMIS Classification:
NFPA Rating:

Health: *2 Flammability: 4 Physical Hazard: 2
Health: 2 Flammability: 4 Reactivity: 0

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.

Ingestion:

Induce vomiting promptly using physician's instructions or by having patient stick finger down throat. After vomiting has been induced, give two teaspoonsful of baking soda in a glass of water. Seek immediate medical attention. Never give fluids or induce vomiting if the victim is unconscious or having convulsions.

Inhalation:

If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Skin Contact:

Wash with soap and water for 15 minutes. If irritation persists or signs of toxicity occur, seek medical attention. Remove contaminated clothing and shoes, and launder before reuse.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point °F(°C): -200 F (Propellant)

Flash Point Method: TAG Closed Cup

Flammable Limits in Air - Lower (%): 1.1%

Flammable Limits in Air - Upper (%): Not Determined

Autoignition Temperature °F(°C): 650 F (Lowest Component)

Extinguishing Media: Carbon dioxide. Use water spray to keep containers cool that are exposed to heat or flames. Foam.

Protection Of Fire-Fighters:

Special Fire-Fighting Procedures: Wear approved positive-pressure self-contained breathing apparatus and protective clothing. Vapor may cause flash fire. Warning!! Contents under pressure. Container may rupture under fire conditions. Decomposition may occur.

Hazardous Combustion Products: Carbon Dioxide. Carbon Monoxide.

Aerosol Comments: NFPA Level 2 Aerosol

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Wear appropriate protective clothing and equipment to prevent skin and eye contact.

Spill Procedures:

Action to be taken if material is released or spilled:

Contain any liquid from leaking containers. Avoid all sources of ignition; heat, sparks and open flames. Do not puncture or incinerate container. Contents under pressure. Wear proper protective equipment as specified in the protective equipment section. Remove sources of ignition. Leaking containers should be removed to an isolated, well-ventilated area and transferred to other suitable containers. Wipe, scrape, or soak up in an inert material and put in a container intended for flammable materials for disposal.

Environmental Precautions:

Do not allow to enter sanitary drains, sewer or surface and subsurface waters. Keep out of lakes, ponds or streams.

7. HANDLING AND STORAGE

Handling and Storage:

Caution: Contents under pressure. Keep away from heat and open flame. Use only in a well ventilated area. Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Avoid contact with skin and eyes. Do not puncture, incinerate or store above 120 F. Exposure to high temperatures may cause bursting. DO NOT store in the passenger compartment of an automobile.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Use in a well ventilated area. Local exhaust ventilation as necessary to maintain exposures to within applicable limits.

Eyes:

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

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens De-Icer
MSDS NO. 3282
Revision Date: 11/13/2007
Date Printed 11/13/2007

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Skin Protection: Avoid skin contact. Wear protective clothing and gloves.
Respiratory Protection: Do not breath mist or vapor. Use in a well ventilated area. Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless to light yellow liquid
Odor: SLIGHT ALCOHOL
pH Value: Not Determined
Vapor Pressure: 63.9 mm of Hg @ 20C (liquid)
Vapor Density (Air=1): 1.1 (liquid)
Boiling Point (°F): 160-389 F (liquid)
Melting/Freezing Point: Not Determined.
Solubility in Water: Solubility in Water:
Bulk Density at 20°C: 7.239 lb/gal
Molecular Weight: Mixture
Specific Gravity (H2O=1): .869 @ 60 F (liquid)
Viscosity: Not Determined.
Evaporation Rate: Not Determined
VOC Content(%): Not determined.
Decomposition Temperature: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: STABLE.
Conditions to Avoid: Keep away from heat, sparks and flame. Avoid any source of ignition. Do not expose to heat or store at temperatures above 120 F.
Materials to Avoid: Contact with oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide. Carbon dioxide. and other asphxiants.
Hazardous Polymerization: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

Component	Route	Species	Dose
Methyl Alcohol 67-56-1	Inhalation	Rats	LC50 64,000 ppm
Ethylene Glycol 107-21-1	Inhalation	Rats	LC50 10876 mg/kg
Propane 74-98-6	NA	NA	Not known.
Butane 106-97-8	Inhalation	Rats	LC50, 658 gm/m ³ /4H
Isopropyl Alcohol 67-63-0	Inhalation	Rats	LC50 16,000 ppm
Iso-Butane 75-28-5	Inhalation	Rats	LC50 57 ppH/15M

Carcinogenicity:

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens De-Icer
 MSDS NO. 3282
 Revision Date: 11/13/2007
 Date Printed: 11/13/2007

Component	IARC	NTP	OSHA
Methyl Alcohol 67-56-1	Not Listed	Not Listed	Not Listed
Ethylene Glycol 107-21-1	Not Listed	Not Listed	Not Listed
Propane 74-98-6	Not Listed	Not Listed	Not Listed
Butane 106-97-8	Not Listed	Not Listed	Not Listed
Isopropyl Alcohol 67-63-0	Not Listed	Not Listed	Not Listed
Iso-Butane 75-28-5	Not Listed	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION

Remarks: Ecological testing has not been conducted on this product.

13. DISPOSAL CONSIDERATION

Waste Classification: Not determined.
Waste Management: Not determined.
Disposal Method: Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. DOT:
Proper Shipping Name: ORM-D CONSUMER COMMODITY
Hazard Class: ORM-D
UN/NA Number: Not Applicable
DOT Packing Group: Not Applicable

IMDG:
Proper Shipping Name: Aerosols (Limited Quantity)
Hazard Class: 2.1
Hazard Subclass: Not determined.
UN No.: UN1950
Packing Group: PG II
Marine Pollutant: No

15. REGULATORY INFORMATION

US Federal Regulations:

Component	SARA 313	SARA 302	TPQ	RQ
Methyl Alcohol 67-56-1	Listed.	Not Listed	Not Listed	Not Listed
Ethylene Glycol 107-21-1	Listed.	Not Listed	Not Listed	Not Listed
Propane 74-98-6	Not Listed	Not Listed	Not Listed	Not Listed
Butane 106-97-8	Not Listed	Not Listed	Not Listed	Not Listed
Isopropyl Alcohol 67-63-0	Listed.	Not Listed	Not Listed	Not Listed
Iso-Butane 75-28-5	Not Listed	Not Listed	Not Listed	Not Listed

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens De-Icer
MSDS NO. 3282
Revision Date: 11/13/2007
Date Printed 11/13/2007
US OSHA HEALTH CLASSIFICATION: Hazardous per OSHA 29 CFR 1910.1200
SARA 311/312 Hazard Catagories: Not Determined.

State Regulations:

Component	California Prop. 65 Cancer list	California - Prop 65 Developmental Toxicity	California Prop. 65 Reproductive Female	California Prop. 65 Reproductive Male
Methyl Alcohol 67-56-1	Not Listed	Not Listed	Not Listed	Not Listed
Ethylene Glycol 107-21-1	Not Listed	Not Listed	Not Listed	Not Listed
Propane 74-98-6	Not Listed	Not Listed	Not Listed	Not Listed
Butane 106-97-8	Not Listed	Not Listed	Not Listed	Not Listed
Isopropyl Alcohol 67-63-0	Not Listed	Not Listed	Not Listed	Not Listed
Iso-Butane 75-28-5	Not Listed	Not Listed	Not Listed	Not Listed

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens De-Icer
 MSDS NO. 3282
 Revision Date: 11/13/2007
 Date Printed: 11/13/2007

Component	New Jersey Right-to-Know List:
Methyl Alcohol 67-56-1	Substance no. 2079 Substance no. 2422 Substance no. 2423 Substance no. 2425 Substance no. 2426 Substance no. 2427 Substance no. 2428 Substance no. 2429 Substance no. 2430 Substance no. 1222
Ethylene Glycol 107-21-1	Substance no. 0878
Propane 74-98-6	Substance no. 2422 Substance no. 2423 Substance no. 2425 Substance no. 2426 Substance no. 2427 Substance no. 2428 Substance no. 2429 Substance no. 2430 Substance no. 1594
Butane 106-97-8	Substance no. 0273 Substance no. 2422 Substance no. 2423 Substance no. 2425 Substance no. 2426 Substance no. 2427 Substance no. 2428 Substance no. 2429 Substance no. 2430
Isopropyl Alcohol 67-63-0	Substance no. 1076 Substance no. 2079 Substance no. 2422 Substance no. 2423 Substance no. 2425 Substance no. 2426 Substance no. 2427 Substance no. 2428 Substance no. 2429 Substance no. 2430 Substance no. 2381
Iso-Butane 75-28-5	Substance no. 2422 Substance no. 2423 Substance no. 2425 Substance no. 2426 Substance no. 2427 Substance no. 2428 Substance no. 2429 Substance no. 2430 Substance no. 1040

U.S. TSCA: The components of this product are listed on the TSCA Inventory.
Canadian Inventory: The components of this product are listed on the Canadian DSL or NDSL Inventory.

16. OTHER INFORMATION

General Notes: Do not allow undiluted material or large quantities to reach groundwater, bodies of water or sewer system.
Disclaimer: The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

MATERIAL SAFETY DATA SHEET

Trade Name:	Johnsens De-Icer
MSDS NO.	3282
Revision Date:	11/13/2007
Date Printed	11/13/2007