# 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 |

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## 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 matieral. 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:** Health: *2 Flammability: 4 Physical Hazard: 2
**NFPA Rating:** 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 throut. 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:** Contain any liquid from leaking containers. Avoid all sources of ignition; heat, sparks and open flames.
**Action to be taken if material is released or spilled:** 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 cuase 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.

## 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 (H20=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:**

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| 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:** Aeroslols (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 |

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**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 |

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