

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens 50% Starting Fluid
 MSDS NO. 6752
 Revision Date: 08/09/2006
 Date Printed: 01/31/2007

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Johnsens 50% Starting Fluid
 Chemical Family: ETHER
 Synonyms: None
 Emergency Telephone (24 hr.): 24-Hour Emergency Information: CHEMTREC (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
Ethyl Ether 60-29-7	49-60	Not Listed	Not Listed	Not Listed
Heptane 142-82-5	20-30	Not Listed	Not Listed	Not Listed
Propane 74-98-6	5-15	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	2-10	Not Listed	Not Listed	Not Listed
Iso-Butane 75-28-5	2-10	Not Listed	Not Listed	Not Listed
Lubricating Oil 64742-52-5	.5-5	Not Listed	Not Listed	Not Listed

Component	Weight %	OSHA Z PEL	OSHA Z TWA	OSHA Z Ceiling
Ethyl Ether 60-29-7	49-60	1200 mg/m ³ 400 ppm	1200 mg/m ³ 400 ppm	Not Listed
Heptane 142-82-5	20-30	2000 mg/m ³ 500 ppm	1600 mg/m ³ 400 ppm	Not Listed
Propane 74-98-6	5-15	1800 mg/m ³ 1000 ppm	1800 mg/m ³ 1000 ppm	Not Listed
Carbon Dioxide 124-38-9	2-10	9000 mg/m ³ 5000 ppm	18000 mg/m ³ 10000 ppm	Not Listed
Iso-Butane 75-28-5	2-10	Not Listed	Not Listed	Not Listed
Lubricating Oil 64742-52-5	.5-5	2000 mg/m ³ 500 ppm	1600 mg/m ³ 400 ppm	Not Listed

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Component	ACGIH TLV TWA	ACGIH TLV STEL	ACGIH TLV Ceiling
Ethyl Ether 60-29-7	400 ppm	500 ppm	Not Listed
Heptane 142-82-5	400 ppm	500 ppm	Not Listed
Propane 74-98-6	1000 ppm	Not Listed	Not Listed
Carbon Dioxide 124-38-9	5000 ppm	30000 ppm	Not Listed
Iso-Butane 75-28-5	1000 ppm	Not Listed	Not Listed
Lubricating Oil 64742-52-5	Not Listed	Not Listed	Not Listed

Other: This product contains trace amounts of (<15 ppm) of Butylated hydroxytoluene (BHT) as an inhibitor to prevent or reduce the formation of potentially explosive peroxides.

3. HAZARDS IDENTIFICATION

Emergency Overview: Danger: Extremely flammable. Breathing high concentrations of vapor or mist may cause nausea, vomiting, central nervous system (CNS) depression and asphyxiation. Symptoms may include headache, dizziness, blurred vision, slurred speech, memory loss, confusion, fatigue, loss of consciousness, convulsions, paralysis, or coma. This material is irritating to skin, eyes and respiratory tract. Keep away from heat, sparks and flame. Prolonged or repeated inhalation or ingestion may result in kidney and liver changes.

HMIS Classification: Health: *2 Flammability: 4 Physical Hazard: 2
NFPA Rating: Health: 2 Flammability: 4 Reactivity: 1

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. Do not permit victim to rub eyes.

Ingestion: If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person. Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration.

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): -76 F
Flash Point Method: TAG Closed Cup
Flammable Limits in Air - Lower (%): 1.2% (Lowest Component)
Flammable Limits in Air - Upper (%): 6.7% (Lowest Component)
Autoignition Temperature °F(°C): 356 F (Lowest Component)
Extinguishing Media: Dry chemical. Carbon dioxide. Alcohol foam. Use water spray to keep containers cool that are exposed to heat or flames.

Protection Of Fire-Fighters:

Special Fire-Fighting Procedures: Wear approved positive-pressure self-contained breathing apparatus and protective clothing. Vapor may cause flash fire. Fight from a maximum distance or use unmanned hose holders or monitor nozzles. Containers can build up pressure if exposed to heat; cool with flooding quantities of water until well after the fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of vessel.

Hazardous Combustion Products: Carbon Dioxide. Carbon Monoxide.
Aerosol Comments: NFPA Level 3 Aerosol

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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 cause bursting. DO NOT store in the passenger compartment of an automobile. Store in a cool, dry place, out of direct sunlight.

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.
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 pale yellow liquid
Odor: PUNGENT SWEET
pH Value: Not Determined
Vapor Pressure: Not Determined
Vapor Density (Air=1): >1.5 Approximate
Boiling Point (°F): -44 F (Lowest Component)
Melting/Freezing Point: Freezing -176F (Ether)
Solubility in Water: PARTLY SOLUBLE
Bulk Density at 20°C: Not Determined
Molecular Weight: Mixture
Specific Gravity (H2O=1): Not Determined
Viscosity: Not Determined.
Evaporation Rate: Not Determined
VOC Content(%): Not determined.
Decomposition Temperature: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of handling, use and transportation.
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. Concentrated oxygen. Nitric acid. Avoid contact with chlorine in the presence of light.
Hazardous Decomposition Products: Carbon monoxide. and other asphxiants. Explosive peroxides. Will react with nitric acid to form explosive nitrates.
Hazardous Polymerization: WILL NOT OCCUR

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11. TOXICOLOGICAL INFORMATION

Toxicological Data:

Component	Route	Species	Dose
Ethyl Ether 60-29-7	Inhalation	Mice	LC50 31000 ppm/30M
Heptane 142-82-5	Inhalation	Rats	LC50 103 gm/m ³ /4H
Propane 74-98-6	NA	NA	Not known.
Carbon Dioxide 124-38-9	NA	NA	Not known.
Iso-Butane 75-28-5	Inhalation	Rats	LC50 57 ppH/15M
Lubricating Oil 64742-52-5	NA	NA	Not known.

Carcinogenicity:

Component	IARC	NTP	OSHA
Ethyl Ether 60-29-7	Not Listed	Not Listed	Not Listed
Heptane 142-82-5	Not Listed	Not Listed	Not Listed
Propane 74-98-6	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	Not Listed	Not Listed	Not Listed
Iso-Butane 75-28-5	Not Listed	Not Listed	Not Listed
Lubricating Oil 64742-52-5	Not Listed	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION

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

13. DISPOSAL CONSIDERATION

Waste Classification: Residues and spilled material are hazardous waste due to ignitability.
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: Consumer Commodity
Hazard Class: ORMD
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.: UN 1950

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14. TRANSPORTATION INFORMATION

Packing Group: Not Determined
 Marine Pollutant: No

15. REGULATORY INFORMATION

US Federal Regulations:

Component	SARA 313	SARA 302	TPQ	RQ
Ethyl Ether 60-29-7	Not Listed	Not Listed	Not Listed	Not Listed
Heptane 142-82-5	Not Listed	Not Listed	Not Listed	Not Listed
Propane 74-98-6	Not Listed	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	Not Listed	Not Listed	Not Listed	Not Listed
Iso-Butane 75-28-5	Not Listed	Not Listed	Not Listed	Not Listed
Lubricating Oil 64742-52-5	Not Listed	Not Listed	Not Listed	Not Listed

US OSHA HEALTH CLASSIFICATION: Hazardous per OSHA 29 CFR 1910.1200
SARA 311/312 Hazard Categories: Immediate/Acute, Delayed/Chronic, Fire

State Regulations:

Component	California Prop. 65 Cancer list	California - Prop 65 Developmental Toxicity	California Prop. 65 Reproductive Female	California Prop. 65 Reproductive Male
Ethyl Ether 60-29-7	Not Listed	Not Listed	Not Listed	Not Listed
Heptane 142-82-5	Not Listed	Not Listed	Not Listed	Not Listed
Propane 74-98-6	Not Listed	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	Not Listed	Not Listed	Not Listed	Not Listed
Iso-Butane 75-28-5	Not Listed	Not Listed	Not Listed	Not Listed
Lubricating Oil 64742-52-5	Not Listed	Not Listed	Not Listed	Not Listed

