

## SAFETY DATA SHEET

### SECTION 1 – IDENTIFICATION

**Chemical Name:** Dimethyl Ether  
**Chemical Formula:** C<sub>2</sub>H<sub>6</sub>O  
**Chemical Family:** Flammable Gases  
**Hazard Classification:** Dimethyl Ether, Flammable Gas, UN1033, Red Label  
**Product Use Description:** Analytical Standard and General Laboratory Applications  
**Company:** MESA Specialty Gases & Equipment  
 2427 South Anne Street  
 Santa Ana, California 92704 USA  
**Phone Number for Information:** Infotrac  
**Emergency Contact:** 800-535-5053 (Int'l: 352-323-3500)

### SECTION 2 – HAZARD(S) IDENTIFICATION

**SIGNAL WORD - DANGER**

**HAZARD STATEMENTS:** Extremely flammable gas. Contains gas under pressure;  
 may explode if heated.  
 May cause suffocation by displacing oxygen in the air.  
 May form explosive mixtures with air.  
 May cause frostbite.

**PRECAUTIONARY STATEMENTS:**

**General:** Use in accordance with Safety Data Sheets.  
 Do not ingest or inhale. Avoid contact with skin and clothing.

**Prevention:** Keep away from heat, hot surfaces, sparks, open flames,  
 and other ignition sources. No smoking.

**Response:** Leaking gas fire: Do not extinguish unless leak can be stopped safely.  
 In case of leakage, eliminate all ignition sources.  
 Do not open valve until prepared to use.  
 Always use a back flow preventative device in piping.

**Storage:** Protect from sunlight. Store in a well-ventilated place.

**OTHER HAZARDS:** High pressure gas. May cause rapid suffocation.  
 May cause dizziness, nausea, drowsiness, vomiting, excess  
 salivation, loss of mobility/consciousness.  
 May react explosively even in absence of air at elevated pressure  
 and/or temperature.  
 Self-contained breathing apparatus (SCBA) may be required.



### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	CONCENTRATION
Dimethyl Ether	115-10-6	> 99.0%
Maximum Impurities		< 1.0%

## SECTION 4 – FIRST AID MEASURES

### ROUTE OF EXPOSURE:

Inhalation: Remove victim(s) to fresh air, as quickly as possible. Trained personnel should administer supplemental oxygen and/or cardio-pulmonary resuscitation, if necessary. Only trained personnel should administer supplemental oxygen.

Eye contact: Immediately flush eyes with plenty of water.

Skin contact: Immediately flush skin with plenty of water. Remove any contaminated clothing and shoes.

Ingestion: Do not induce vomiting unless instructed to do so by medical personnel. If conscious, drink plenty of water. Never give anything by mouth to an unconscious person.

Frostbite: place the frostbitten part in warm water. **DO NOT USE HOT WATER.** If warm water is not available, or is impractical to use, wrap the affected parts gently in blankets. Alternatively, if the fingers or hands are frostbitten, place the affected area in the armpit. Encourage victim to gently exercise the affected part while being warmed. Seek immediate medical attention.

**SYMPTOMS:** The main effect of inhalation exposure to Dimethyl Ether is central nervous system depression. Symptoms of such overexposure to Dimethyl Ether can produce anesthetic effects (sleepiness, loss of coordination, fatigue), as well as headaches, dizziness, nausea, and unconsciousness. The following information summarizes the effects of Dimethyl Ether inhalation on humans:

### CONCENTRATION EXPOSURE SYMPTOMS

5-7.5 % 12 minutes Mild intoxication.

8.2% 20-30 minutes Loss of coordination, blurring of vision, loss of feeling in the appendages.

10% 10-20 minutes Narcosis (drowsiness, fatigue, loss of coordination).

14.4% 36 minutes Unconsciousness.

20% 17 minutes Unconsciousness.

Exposure to high concentrations of this gas can cause an oxygen-deficient environment. Individuals breathing such an atmosphere may experience symptoms which include headaches, ringing in the ears, dizziness, drowsiness, unconsciousness, nausea, vomiting, and depression of all the senses. Under some circumstances of overexposure, death may occur. The effects associated with various levels of oxygen are as follows:



### CONCENTRATION SYMPTOM OF EXPOSURE

2-16% Oxygen: Breathing and pulse rate increased, muscular coordination slightly disturbed.

10-14% Oxygen Emotional upset, abnormal fatigue, disturbed respiration.

6-10% Oxygen: Nausea and vomiting, collapse or loss of consciousness.

Below 6%: Convulsive movements, possible respiratory collapse, and death.

HAZARDOUS MATERIAL INFORMATION SYSTEM			
HEALTH		(BLUE)	1
FLAMMABILITY		(RED)	4
REACTIVITY		(YELLOW)	1
PROTECTIVE EQUIPMENT			C
EYES	RESPIRATORY	HANDS	BODY
	See Section 8		See Section 8
For routine industrial applications			

**OTHER POTENTIAL HEALTH EFFECTS:** Contact with liquid or rapidly expanding gases (which are released under high pressure) may cause frostbite. Symptoms of frostbite include change in skin color to white or grayish-yellow. The pain after such contact can quickly subside.

**HEALTH EFFECTS OR RISKS FROM EXPOSURE:** An Explanation in Lay Terms. Overexposure to Dimethyl Ether may cause the following health effects:

**ACUTE:** The most significant hazard associated with Dimethyl Ether is inhalation of vapors. Symptoms of such overexposure to Dimethyl Ether can produce anesthetic effects (sleepiness, loss of coordination, fatigue), as well as headaches, dizziness, nausea, and unconsciousness. Severe inhalation exposure can be fatal, due to Dimethyl Ether overexposure or asphyxiation. Contact with liquid or rapidly expanding gases may cause frostbite.

**CHRONIC:** There are currently no known adverse health effects associated with chronic exposure to Dimethyl Ether.

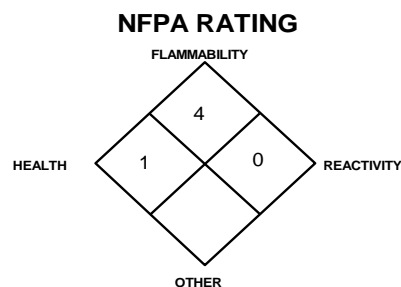
**TARGET ORGANS:** Central nervous system, liver, cardiovascular system, respiratory system.

## SECTION 5 – FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** : Extinguish Dimethyl Ether fires by shutting off the source of the gas. Use water spray to cool fire-exposed containers, structures, and equipment. Extinguishing media recommended for Dimethyl Ether are: water spray, water fog, dry chemical or carbon dioxide.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Dimethyl Ether is a flammable gas. Old cylinders of Dimethyl Ether, or cylinders in which the contents may have been exposed to air for extended time periods, may contain unstable peroxides which may rupture spontaneously or when heated. Vapor may travel considerable distance to source of ignition and flash back.

**DANGER!** Fires impinging (direct flame) on the outside surface of unprotected pressure storage vessels of Dimethyl Ether can be very dangerous. Direct flame exposure on the cylinder wall can cause an explosion either by BLEVE (Boiling Liquid Expanding Vapor Explosion), or by exothermic decomposition. This is a catastrophic failure of the vessel releasing the contents into a massive fireball and explosion. The resulting fire and explosion can result in severe equipment damage and personnel injury or death over a large area around the vessel. For massive fires in large areas, use unmanned hose holder or monitor nozzles; if this is not possible, withdraw from area and allow fire to burn.



Explosion Sensitivity to Mechanical Impact: Not sensitive.

Explosion Sensitivity to Static Discharge: Static discharge may cause Dimethyl Ether to ignite and the cylinder to rupture.

**SPECIAL FIRE FIGHTING PROCEDURES: RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE TO DIMETHYL ETHER WITHOUT ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. At a minimum, Self-Contained Breathing Apparatus and Fire-Retardant Personal Protective equipment should be worn. Adequate fire protection must be provided during rescue situations.** Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. The best fire-fighting technique may be simply to let the burning gas escape from the pressurized cylinder, tank car, or pipeline. Stop the leak before extinguishing fire. If the fire is extinguished before the leak is sealed, the leaking gas could re-ignite without warning and cause extensive damage, injury, or fatality. In this case, increase ventilation (in enclosed areas) to prevent flammable mixture formation. Because of the potential for a BLEVE, evacuation of non-emergency personnel is essential. If water is not available for cooling or protection of vessel exposures, evacuate the area. Refer to the North American Emergency Response Guidebook (Guide #115) for additional information.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES:** Wear self-contained breathing apparatus when entering area unless atmosphere is proven to be safe. Monitor oxygen level. Shut off gas supply if this can be done safely. Isolate and ventilate the area until gas has dispersed.

**SPILL AND LEAK RESPONSE:** Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a release, clear the affected area, protect people, and respond with trained personnel. Adequate fire protection must be provided. Minimum Personal Protective Equipment should be Level B: fire-retardant protective clothing, mechanical resistant gloves and Self-Contained Breathing Apparatus. Use only non-sparking tools and equipment. Locate and seal the source of the leaking gas. Protect personnel attempting the shut-off with water-spray or fog. Allow the gas to dissipate. Monitor the surrounding area for combustible gas and oxygen levels. Combustible gas concentration must be below 10% of the LEL (LEL = 3.4%) prior to entry. The atmosphere must have at least 19.5 percent oxygen before personnel can be allowed in the area without Self-Contained Breathing Apparatus. Attempt to close the main source valve prior to entering the area. If this does not stop the release (or if it is not possible to reach the valve), allow the gas to release in-place or remove it to a safe area and allow the gas to be released there.

Monitor the surrounding area for combustible gas levels and oxygen. The atmosphere must have at least 19.5 percent oxygen before personnel can be allowed in the area without Self-Contained Breathing Apparatus. Combustible gas concentration must be below 10% of the LEL (LEL = 5.0%) prior to entry. Attempt to close the main source valve prior to entering the area. If this does not stop the release (or if it is not possible to reach the valve), allow the gas to release in-place or remove it to a safe area and allow the gas to be released there.

THIS IS AN EXTREMELY FLAMMABLE GAS. Protection of all personnel and the area must be maintained.

**ENVIRONMENTAL PRECAUTIONS:** Prevent spreading of vapors through sewers, ventilation systems, and confined areas. Do not discharge materials into any place where their accumulation could be dangerous.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Stop the flow of gas or remove cylinder to outdoor location if this can be done without risk. Ventilate enclosed areas. Move leaking cylinder to fume hood or safe outdoor area. Use monitoring equipment if hazardous conditions are suspected or likely to occur.

## SECTION 7 – HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Protect cylinders against physical damage. Never tamper with pressure relief devices in valves and cylinders. Electrical equipment should be non-sparking or explosion proof. The following rules are applicable to work situations in which cylinders are being used:

**Before Use:** Move cylinders with a suitable hand-truck. Do not drag, slide or roll cylinders. Do not drop cylinders or permit them to strike each other. Secure cylinders firmly. Leave the valve protection cap in-place (where provided) until cylinder is ready for use.

**During Use:** Use designated CGA fittings and other support equipment. Do not use adapters. Do not heat cylinder by any means to increase the discharge rate of the product from the cylinder. Use check valve or trap in discharge line to prevent hazardous backflow into the cylinder. Do not use oils or grease on gas-handling fittings or equipment.

**After Use:** Close main cylinder valve. Replace valve protection cap (where provided). Mark empty cylinders "EMPTY".

**NOTE:** Use only DOT or ASME code containers. Earth-ground and bond all lines and equipment associated with Dimethyl Ether. Close valve after each use and when empty. Cylinders must not be recharged except by or with the consent of owner. For additional information refer to the Compressed Gas Association Pamphlet P-1, Safe Handling of Compressed Gases in Containers. Additionally, refer to CGA Bulletin SB-2 "Oxygen Deficient Atmospheres".

**CONDITIONS FOR SAFE STORAGE:** Store in cool, dry, well-ventilated area, away from sources of heat, ignition and direct sunlight. Do not allow area where cylinders are stored to exceed 52°C (125°F). Use a check valve or trap in the discharge line to prevent hazardous backflow. Cylinders should be stored upright and be firmly secured to prevent falling or being knocked over. Cylinders can be stored in the open, but in such cases, should be protected against extremes of weather and from the dampness of the ground to prevent rusting. Cylinders should be secured with mounting brackets away from heavily traveled areas. Use oldest cylinders in stock first to prevent full cylinders from being stored for excessive periods of time. Full and empty cylinders should be segregated. Cylinders should be moved by suitable hand trucks. Close valve after each use and when empty. Cylinder valve guards or caps should be in place. Store containers in location free from fire risk and away from any sources of heat and ignition. Keep cylinder at least 20 feet away from combustible material, oxidizers, and Oxygen. Use equipment rated for cylinder pressure.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	OSHA PEL	ACGIH TLV
Dimethyl Ether	None	None

**APPROPRIATE ENGINEERING CONTROLS:** Use with adequate ventilation. Local exhaust ventilation is preferred, because it prevents Dimethyl Ether dispersion into the work place by eliminating it at its source. If appropriate, install automatic monitoring equipment to detect the presence of potentially flammable air-gas mixtures and the level of oxygen.

**INDIVIDUAL PROTECTIVE MEASURES:** Safety glasses, work gloves, and safety shoes should be worn when handling high pressure cylinders or hazardous materials. Avoid skin contact with leaking liquid (danger of frostbite). Wear suitable protective equipment. Ensure adequate ventilation, especially in confined areas. Do not eat, drink, or smoke when using. **RESPIRATORY PROTECTION:** Maintain exposure levels of Dimethyl Ether below the levels listed in Section 2 (Composition and Information on Ingredients) and oxygen levels above 19.5% in the workplace. Use supplied air respiratory protection if Dimethyl Ether levels exceed exposure limits and if oxygen level is below 19.5% or during emergency response to a release of Dimethyl Ether. If respiratory protection is required, follow the requirements of the Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), or equivalent State standards.

**EYE PROTECTION:** Splash goggles, chemical safety glasses or preferably a full face shield for protection from rapidly expanding gases.

**HAND PROTECTION:** Mechanical resistant gloves should be worn when handling cylinders of Dimethyl Ether. Chemically resistant gloves should be worn when using Dimethyl Ether in situations where skin contact may be anticipated. Buna-N rubber gloves are recommended.

**BODY PROTECTION:** Use body protection appropriate for task. An apron or coveralls may be necessary if splashes of liquid may be anticipated. Transfer of large quantities under pressure may require protective equipment appropriate to protect employees from gas spraying, as well as fire-retardant items.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless	Upper/lower flammability/explosive limits: No data available
Odor: ethereal odor	Vapor Pressure: N/A
Odor threshold: Not Determined	Vapor Density (Air=1): 1.918 kg/m3 (0.1197 lb/ft3)
pH: N/A	Relative Density (Water=1): Varies
Melting point/range: N/A	Solubility (in water): 7%
Boiling point/range: -24.8°C (-12.7°F)	Partition coefficient (n-octanol/water): N/A
Flash Point: N/A	Auto-ignition temperature: No data available
Evaporation Rate (Butyl Acetate=1): N/A	Decomposition temperature: No data available
Flammability (solid, gas): No data available	Viscosity: N/A

## SECTION 10 – STABILITY AND REACTIVITY DATA

<b>Reactivity:</b> Highly reactive	<b>Conditions to avoid:</b> Contact with incompatible materials and exposure to heat, sparks and other sources of ignition. If cylinders are exposed to extremely high temperatures, the cylinders may rupture. Do not store Dimethyl Ether for prolonged periods of time.
<b>Chemical Stability:</b> Reactive peroxides may be formed upon prolonged exposure of the contents of the cylinder to air. Distillation or evaporation can concentrate peroxides. The peroxides which are formed can decompose violently, which can result in a fire and cylinder rupture.	<b>Incompatible materials:</b> Dimethyl Ether is incompatible with the following materials: strong oxidizers, (e.g., bromine, bromine azide), oxygen, carbon monoxide, acetic acid, organic acid anhydrides and halogens. This gas reacts violently with ozone, fluorine and chromic anhydride.
<b>Possibility of hazardous reactions:</b> No data available	<b>Hazardous Decomposition or Byproducts:</b> Decomposes to form carbon monoxide and carbon dioxide.

## SECTION 11 – TOXICOLOGICAL INFORMATION

### LIKELY ROUTES OF EXPOSURE:

LC50 (inhalation, rat) = 164,000 ppm/4H

LC50 (inhalation, rat) = 308 g/m<sup>3</sup>

TCLo (inhalation, rat) = 2 ppb/6 hours/30 weeks-intermittent

Probable LD (oral, human) = 0.5-5 g/kg

EYE IRRITATION: No studies available for Dimethyl Ether.

### SYMPTOMS/EFFECTS FROM EXPOSURE:

**SUSPECTED CANCER AGENT:** Dimethyl Ether is not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, CAL/OSHA, and therefore is neither considered to be nor suspected to be a cancer-causing agent by these agencies. Tests in animals demonstrate no carcinogenic toxicity.

**IRRITANCY OF PRODUCT:** Dimethyl Ether is not irritating; however, contact with rapidly expanding gases can cause frostbite to exposed tissue.

**SENSITIZATION TO THE PRODUCT:** Dimethyl Ether is not known to cause sensitization in humans. Cardiac sensitization has been noted in clinical studies involving test animals exposed to relatively high doses of Dimethyl Ether.

**REPRODUCTIVE TOXICITY INFORMATION:** Listed below is information concerning the effects of Dimethyl Ether on the human reproductive system.

**Mutagenicity:** No human mutagenicity effects have been described for Dimethyl Ether. Dimethyl Ether does not produce genetic damage in bacterial cell cultures but has not been tested in animals.

**Embryotoxicity:** No embryotoxic effects have been described for Dimethyl Ether.

**Teratogenicity:** No human teratogenicity effects have been described for Dimethyl Ether.

**Reproductive Toxicity:** No human reproductive toxicity effects have been described for Dimethyl Ether. Tests in animals demonstrate no developmental toxicity.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Individuals with pre-existing diseases of the central nervous system or cardiovascular system may have increased susceptibility to exposures to Dimethyl Ether.

**RECOMMENDATIONS TO PHYSICIANS:** Physicians should use special caution in situations of emergency life-support before administering catecholamine drugs, such as epinephrine, as a stimulant in cases of Dimethyl Ether poisoning because of possible increased risk of eliciting cardiac dysrhythmias. Administer oxygen, if necessary. Treat symptoms and reduce or eliminate exposure.

**BIOLOGICAL EXPOSURE INDICES (BEIs):** Currently, Biological Exposure Indices (BEIs) are not applicable for Dimethyl Ether.

**ACUTE/CHRONIC TOXICITY:** Toxicity demonstrated in animals exposed by inhalation for short-term exposures include anesthetic effects, and depression of arterial blood pressure. Cardiac sensitization occurred in dogs exposed to concentrations of 20% in air and greater. Toxicity experienced in animals from repeated exposure by inhalation include changes in white blood cell counts, anesthetic effects, increase in relative body/organ weight ratios for liver, spleen and testes and weight-gain suppression. Toxicity demonstrated in rats upon long-term, repeated exposure at 200, 2000, 20000 ppm by inhalation include liver-weight reduction, and alterations of liver enzymes level in the high group. In a different study in which rats were exposed to concentrations of 2000, 10000, or 25000 ppm observations include decreased red blood cell counts, spleen changes, decreased survival of males at the two higher exposure levels and hemolytic effects at 25,000 ppm. Tests in animals demonstrate no carcinogenic or developmental toxicity.

**CARCINOGENICITY:** N/A

## SECTION 12 – ECOLOGICAL INFORMATION

**Ecotoxicity (aquatic and terrestrial):**

**EFFECT OF MATERIAL ON PLANTS or ANIMALS:** This gas can be harmful to animal life. Suspected anesthetic effect on a variety of test animals during clinical studies indicate adverse effects on the central nervous system, liver and cardiovascular system. No information is currently available concerning adverse effects expected to occur to plant-life. Plants may be damaged by frost produced in the presence of rapidly expanding gases.

**EFFECT OF CHEMICAL ON AQUATIC LIFE:** Aquatic toxicity data are available for Dimethyl Ether, as follows:

LC50 (Daphnia) = 1852 mg/L, 96 hours  
LC50 (fathead minnow) = 2695 mg/L, 96 hours  
LC50 (rainbow trout) = 3082 mg/L, 96 hours  
LC50 (catfish) = 2419 mg/L, 96 hours  
LC50 (goldfish) = 3677 mg/L, 96 hours  
LC50 (bluegill) = 3429 mg/L, 96 hours  
LC50 (mosquito fish) = 2978 mg/L, 96 hours

**Persistence and degradability:** No data available

**Bioaccumulative potential:** N/A

**Mobility in soil:** No data available

**Other Effects:** The mixture does not contain any class I or Class II ozone depleting chemicals.

## SECTION 13 – DISPOSAL CONSIDERATIONS

**Disposal:** Waste disposal must be in accordance with appropriate Federal, State, and local regulations. Return cylinders with any residual product to MESA Specialty Gases & Equipment. Do not dispose of locally.

## SECTION 14 – TRANSPORTATION INFORMATION

### DOT Classification:

Proper Shipping Name: Dimethyl Ether  
Class: 2.1  
UN/ID No.: UN1033  
Label: Flammable Gas, Red Label

### IATA Classification:

Proper Shipping Name: Dimethyl Ether  
Class: 2.1  
UN/ID No.: UN1033  
Label: Flammable Gas, Red Label

**Environment hazard:** No This gas will be dissipated rapidly in well-ventilated areas. Additional environmental data are available for Dimethyl Ether as follows:

Solubility: 35,300 mg/L in water at 25°C.

Biodegradation: May be resistant to biodegradation, based on other ethers; estimated half-life = 2-15 days.

Bioconcentration: BCF (Bioconcentration Factor) of 1.7 (estimated). Based on this BCF, dimethyl ether is not expected to bioconcentrate in aquatic organisms. Log Kow = 0.10, 0.12.

### Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code: N/A

**SPECIAL PRECAUTIONS FOR USER:** Avoid transport on vehicles where the load space is not separated from driver's compartment. Ensure that transporter is aware of the potential hazards of the load and knows what to do in event of an emergency. Contact supplier for complete transportation information.

## SECTION 15 – REGULATORY INFORMATION

**U.S. SARA REPORTING REQUIREMENTS:** Dimethyl Ether is not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

**U.S. SARA THRESHOLD PLANNING QUANTITY:** Not applicable.

**U.S. CERCLA REPORTABLE QUANTITY (RQ):** Not applicable.

**CANADIAN DSL/NDL INVENTORY:** Dimethyl Ether is listed on the DSL Inventory.

**U.S. TSCA INVENTORY STATUS:** Dimethyl Ether is listed on the TSCA Inventory.

**OTHER U.S. FEDERAL REGULATIONS:** Dimethyl Ether is subject to the reporting requirements of Section 112(r) of the Clean Air Act. The Threshold Quantity is 10,000 lbs. Compliance with the OSHA Process Safety Standard (29 CFR 1910.119) may be applicable to operations involving the use of Dimethyl Ether. Under this regulation Dimethyl Ether is not listed in Appendix A, however, any process that involves a flammable gas on-site, in one location, in quantities of 10,000 lb (4,553 kg) or greater is covered under this regulation unless it is used as a fuel.

**U.S. STATE REGULATORY INFORMATION:** Dimethyl Ether is covered under specific State regulations, as denoted below:

Alaska - Designated Toxic and Hazardous Substances: No. California - Permissible Exposure Limits for Chemical Contaminants: No. Florida - Substance List: Dimethyl Ether. Illinois - Toxic Substance List: No.  
Kansas - Section 302/313 List: No. Massachusetts - Substance List: Dimethyl Ether. Michigan - Critical Materials Register: No. Minnesota - List of Hazardous Substances: Dimethyl Ether.  
Missouri - Employer Information/Toxic Substance List: No. New Jersey - Right to Know Hazardous Substance List: Dimethyl Ether. North Dakota - List of Hazardous Chemicals, Reportable Quantities: No.  
Pennsylvania - Hazardous Substance List: No. Rhode Island - Hazardous Substance List: Dimethyl Ether.  
Texas - Hazardous Substance List: No. West Virginia - Hazardous Substance List: No. Wisconsin - Toxic and Hazardous Substances: No.

**CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):** Dimethyl Ether is not on the California Proposition 65 lists.



**LABELING:**

**DANGER: EXTREMELY FLAMMABLE GAS. CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED. MAY CAUSE RAPID SUFFOCATION BY DISPLACING OXYGEN IN THE AIR. MAY FORM EXPLOSIVE MIXTURES WITH AIR.** May cause dizziness, nausea, drowsiness, vomiting, excess salivation, and loss of mobility/consciousness. May react explosively even in absence of air at elevated pressure and/or temperature. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources—No smoking. Use and store in well-ventilated areas. Leaking gas fire: Do not extinguish unless leak can be stopped safely. In case of leakage, eliminate all ignition sources. Do not open valve until prepared to use. Always use a backflow preventative device in piping. Use only with equipment rated for cylinder pressure. Close valve after each use and when empty. Cylinder temperature should not exceed 52°C (125°F). Use in accordance with Safety Data Sheet. **FIRST AID: IF INHALED,** remove to fresh air. If breathing is difficult, give Oxygen. Call a physician. **IN CASE OF FROSTBITE,** obtain immediate medical attention. **DO NOT REMOVE THIS LABEL.**

**SECTION 16 – OTHER INFORMATION**

Information contained in this data sheet is offered without charge for use by technically qualified personnel at their discretion and risk. All statements, technical information and recommendations contained herein are based on tests and data which we believe to be reliable. But the accuracy and completeness thereof, is not guaranteed and no warranty of any kind, either expressed or implied, is made with respect thereto. Since MESA Specialty Gases and Equipment Division of MESA International Technologies, Inc. shall have no control over the use of the product described herein, we assume no liability for loss or damage incurred from the proper or improper use of such product.

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