MESA Specialty Gases & Equipment
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Santa Ana, California 92704 USA
Domestic US: (866) 470-6372; International 714-434-7102
www.mesagas.com

SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION

Chemical Name: Ethyl Chloride
Chemical Formula: C_2H_5Cl
Chemical Family: Flammable Gases
Hazard Classification: Ethyl Chloride, UN1037, Flammable Gas, 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 form explosive mixtures with air.
May cause suffocation by displacing oxygen in the air.
Suspected of causing cancer.
May cause damage to liver and kidney.
May cause irritation to skin, eyes, and mucous membranes.
May cause anesthetic effects.
Harmful to aquatic life with long lasting effects.
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
Ethyl Chloride	75-00-3	>99.7%
Maximum Impurities		<0.3%

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: If liquid is splashed into eyes, or if irritation of the eye develops after exposure to liquid or gas, open victim's eyes while under gentle running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes.
Skin contact: If liquid is spilled on skin, or if irritation of the skin develops after exposure to liquid or gas, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victim must seek immediate medical attention.
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 of Ethyl Chloride is central nervous system depression. Symptoms of such overexposure can include drowsiness, headache, dizziness, and loss of coordination. Exposures to large concentrations can lead to unconsciousness and death. The gas can be irritating to the mucous membranes. Specific exposure symptoms, as related to dose of exposure, are as follows:

Concentrations (ppm) Effects
13000 Slight symptoms (e.g., dizziness, headaches).
19000 Slight loss of feeling in hands, fingers and other appendages.
20000 Dizziness, slight abdominal cramps after brief exposure.
25000 Rapid loss of coordination and balance.
> 25000 Brief exposure can lead to serious effects (e.g., painful stomach cramps, headaches, unconsciousness, death).

Long-term exposure to high levels of Ethyl Chloride may produce the following symptoms: loss of muscle coordination, involuntary eye movements, tremors, speech disturbance, sluggish reflexes and hallucinations. These symptoms are alleviated when the overexposure to this gas is ended.

CONTACT WITH SKIN and EYES: The gas is mildly irritating to the skin and eyes. There is one report of an allergic reaction experienced by an individual after a skin exposure to liquid Ethyl Chloride. 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 Ethyl Chloride may cause the following health effects:

HAZARDOUS MATERIAL INFORMATION SYSTEM

HEALTH	(BLUE)	2
FLAMMABILITY	(RED)	4
REACTIVITY	(YELLOW)	0
PROTECTIVE EQUIPMENT		C

EYES	RESPIRATORY	HANDS	BODY
	See Section 8		See Section 8

For routine industrial applications

ACUTE: The most significant hazard associated with Ethyl Chloride is inhalation of vapors, which can be mildly toxic, and cause the appearance of drunkenness, staggering, dizziness, nausea and possible hiccups. Contact with liquid or rapidly expanding gases may cause frostbite.

CHRONIC: Long-term exposure to high levels of Ethyl Chloride may produce the following symptoms: loss of muscle coordination, involuntary eye movements, tremors, speech disturbance, sluggish reflexes and hallucinations. These symptoms are alleviated when the overexposure to this gas is ended. IARC classifies Ethyl Chloride as a Group 3 compound (Not Classifiable as to Carcinogenicity in Humans). Refer to Section 11 of this MSDS (Toxicological Information) for further information.

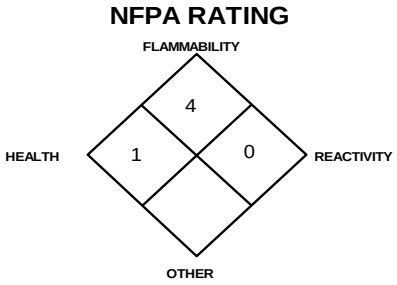
TARGET ORGANS: Central nervous system, respiratory system, skin, eyes, liver and kidneys.

SECTION 5 – FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: : Extinguish Ethyl Chloride fires by shutting-off the source of the gas. Use water spray to cool fire-exposed containers, structures, and equipment. Use water spray, carbon dioxide or dry chemicals as extinguishing media.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Flammable gas. Very dangerous fire hazard when exposed to heat, flame or powerful oxidizers. Both the liquid and gas pose a serious fire hazard when accidentally released. Ethyl Chloride liquid is lighter than water and the gas is heavier than air, either may hug the ground and travel a considerable distance to a source if ignition and flash back to a leak or open container. Distant ignition and flashback are possible. Explosion hazard in confined spaces. During a fire, toxic gases (e.g., hydrogen chloride, chlorine, and phosgene) may be produced. Water spray should be used with care. Ethyl Chloride can be hydrolyzed, and will form hydrochloric acid.

DANGER! Fires impinging (direct flame) on the outside surface of unprotected pressure storage vessels of Ethyl Chloride 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 Ethyl Chloride to ignite explosively.

SPECIAL FIRE FIGHTING PROCEDURES: RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE TO ETHYL CHLORIDE 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 still-leaking gas could explosively re-ignite without warning and cause extensive damage, injury, or fatality. In this case, increase ventilation (in enclosed areas) to prevent flammable or explosive 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. Ethyl Chloride reacts with water to form Hydrochloric Acid.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: 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, mechanically-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. Allow the gas to dissipate. Monitor the surrounding area for combustible gas levels and oxygen. Combustible gas concentration must be below 10% of the LEL (LEL = 3.8%) prior to entry. A colorimetric tube is also available for Ethyl Chloride. If a colorimetric tube is used to indicate the concentration of Ethyl Chloride, the reading obtained should be lower than the limits indicated in Section 2 (Composition and Information on Ingredients) before non-emergency personnel are allowed to enter area. 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.

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. 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. 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 Ethyl Chloride. 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”.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain application equipment is locked and tagged-out safely. Purge gas handling equipment with inert gas (e.g., nitrogen) before attempting repairs. Always use product in areas where adequate ventilation is provided.

CONDITIONS FOR SAFE STORAGE: 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. Keep cylinder in dry, cool, well ventilated area away from heat, flame, sparks or corrosive chemicals. 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. Keep cylinder at room temperature (21°C/ 70°F). 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
Ethyl Chloride	100 ppm	1000 ppm

APPROPRIATE ENGINEERING CONTROLS: Use with adequate ventilation. Local exhaust ventilation is preferred, because it prevents Ethyl Chloride dispersion into the work place by eliminating it at its source. If appropriate, install automatic monitoring equipment to detect the presence of potentially explosive 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 oxygen levels above 19.5% in the workplace. Use supplied air respiratory protection if oxygen levels are below 19.5% or during emergency response to a release of Ethyl Chloride. If respiratory protection is required, follow the requirements of the Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), or equivalent State standards. The following NIOSH respiratory protection recommendations are for Ethyl Chloride.

CONCENTRATION	**RESPIRATORY EQUIPMENT**
Up to 3,800 ppm:	Supplied Air Respirator (SAR) or Self-Contained Breathing Apparatus (SCBA).
Emergency or Planned Entry into Unknown Concentration or IDLH Conditions:	a SCBA or positive pressure, full-faced SAR with an auxiliary SCBA.
Escape:	Gas mask with organic vapor canister; or escape-type SCBA.

The IDLH concentration for Ethyl Chloride is 3800 ppm (10% of the LEL).

EYE PROTECTION: Splash goggles or safety glasses, for protection from rapidly expanding gases and contact with liquid.

HAND PROTECTION: Wear mechanically-resistant, chemically compatible gloves when handling cylinders of Ethyl Chloride. Viton or neoprene gloves are recommended for operations in which exposure to liquid may occur.

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: 20.0
Odor threshold: 4.2 ppm	Vapor Density (Air=1): 2.642 kg/m3 (0.1649 lb/ft3)
pH: N/A	Relative Density (Water=1): Varies
Melting point/range: N/A	Solubility (in water): 0.06%
Boiling point/range: 12.3°C (54.1°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	Visocity: N/A

SECTION 10 – STABILITY AND REACTIVITY DATA

Reactivity: Highly reactive	**Conditions to avoid:** Contact with incompatible materials and exposure to heat, sparks and other sources of ignition. Cylinders exposed to high temperatures or direct flame can rupture or burst.
Chemical Stability: Normally stable in air. In the presence of moisture, it hydrolyzes slowly forming hydrochloric acid	**Incompatible materials:** Strong oxidizers (e.g., chlorine, bromine pentafluoride, oxygen, oxygen difluoride, and nitrogen trifluoride).
Possibility of hazardous reactions: No data available	**Hazardous Decomposition or Byproducts:** Carbon monoxide, carbon dioxide, hydrogen chloride gas and phosgene gas.

SECTION 11 – TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE:
LC50 (inhalation, rat) = 160g/m3/2 hours
LC50 (inhalation, mouse) = 146g/m3/6 hours
LCLo (inhalation, dog) = 14661 ppm/6 hours

LCLo (inhalation, guinea pig) = 40,000 ppm/45M
TCLo (inhalation, rat) = 15,000 ppm/6 hours/2 years-intermittent, equivocal tumorigenic agent

TCLo (inhalation, mouse) = 15,000 ppm/6 hours/2 years-intermittent, carcinogenic effect

EYE IRRITATION: Rabbits exposed to liquid Ethyl Chloride exhibited damage due to chemical or solvent action and not to temperature lowering.

SYMPTOMS/EFFECTS FROM EXPOSURE:
ACUTE INHALATION EFFECTS: In short-term animal studies, Ethyl Chloride produced central nervous system effects (drowsiness, narcosis, coma) at high concentrations. Exposure of guinea pigs to 10000 ppm (1%) for 810 minutes caused no obvious effects. Exposure to 20000 ppm (2%) caused slight to moderate unsteadiness after 25 minutes and slight sluggishness after exposure for 540 minutes. Guinea pigs exposed to concentrations of approximately 40000-50000 ppm (4-5%) became dizzy within 3 minutes, and were unable to stand after exposure for 40 minutes; some of the guinea pigs died after 540 minutes at 40000 ppm. Concentrations exceeding 100000 ppm produced loss of balance in a minute, unconsciousness in 5 minutes, and death in less than one hour. Recovery appeared to be rapid and complete in animals which survived the exposures. Animals which died showed lung, liver, kidney and intestinal injury. Similar effects have been reported in other studies.

CHRONIC INHALATION EFFECTS: Rats exposed to 14 mg/L for 2 hours a day for 60 days showed changes in body weight, minor changes in blood cells, and functional changes in nervous system and liver. The effects were reversible. In another study, rats were exposed to .57 mg/L for 4 hours a day 6 days a week, for 6 months. In general the animals appeared healthy but exposed animals did not gain weight normally and functional changes in the nervous system and liver were detected.

ACUTE/CHRONIC TOXICITY:
SUSPECTED CANCER AGENT: Ethyl Chloride is not found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA and therefore is not considered to be, nor suspected to be a cancer-causing agent by these agencies. Other agencies list this compound as follows:

Ethyl Chloride: IARC Group 3 Compound (Not Classifiable as to Human Carcinogenicity). Additional information obtained during clinical studies involving test animals exposed to Ethyl Chloride. A carcinogenic effect has been seen in rats and mice exposed by inhalation for 2 years to 15000 ppm. An increase in skin tumors was seen in exposed male rates and an unusual type of brain tumor in exposed female rats. In female mice there was a significant increase in uterine tumors, and there was also an increase in liver tumors.

IRRITANCY OF PRODUCT: Ethyl Chloride is mildly irritating; also, contact with rapidly expanding gases can cause frostbite to exposed tissue.

SENSITIZATION TO THE PRODUCT: Ethyl Chloride may cause allergic reactions after skin contact with the liquid.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of Ethyl Chloride on the human reproductive system.

Mutagenicity: No human mutagenicity effects have been described for Ethyl Chloride. In terms of Ethyl Chloride exposures during clinical studies involving test animals, the following results were observed: Negative results in a micro nucleus test with mice exposed by inhalation to 15000 ppm; negative results in a cell transformation test; positive results in a bacterial test.
Embryotoxicity: No human embryotoxic effects have been described for Ethyl Chloride. Refer to following paragraph for additional information.
Teratogenicity: No human teratogenicity effects have been described for Ethyl Chloride. In terms of Ethyl Chloride exposures during clinical studies involving test animals, the following results were observed: No significant effects seen when pregnant mice were exposed to 5000 ppm for 6 hr./day, during days 6-15 of pregnancy.
Reproductive Toxicity: No human reproductive toxicity effects have been described for Ethyl Chloride. In terms of Ethyl Chloride exposures during clinical studies involving test animals, the following results were observed: Sperm motility was impaired in rats exposed by inhalation to 23 or 216 ppm . Motility returned to normal once exposure stopped.\

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Conditions relating to the target organs may be aggravated by overexposures to Ethyl Chloride. See Section 3 (Hazard Identification) for information on these conditions.
RECOMMENDATIONS TO PHYSICIANS: Administer oxygen, if necessary. Treat symptoms and eliminate exposure.
BIOLOGICAL EXPOSURE INDICES (BEIs): Currently, Biological Exposure Indices (BEIs) are not applicable for Ethyl Chloride.

CARCINOGENICITY: May cause cancer depending on duration and level of exposure.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotocity (aquatic and terrestrial): Ethyl Chloride has suspected toxic effects with long term exposure to: central nervous system depression, liver and kidney. No information currently available concerning adverse effects expected to occur to plant life, except for frost produced in the presence of rapidly expanding gases. No evidence is currently available on the effects of Ethyl Chloride on aquatic life.
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available

Other Effects: N/A

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 Gas & Equipment Inc. Do not dispose of locally.

SECTION 14 – TRANSPORTATION INFORMATION

DOT Classification:

Proper Shipping Name: Ethyl Chloride
Class: 2.1
UN/ID No.: UN1037
Label: Flammable Gas, Red Label

IATA Classification:

Proper Shipping Name: Ethyl Chloride
Class: 2.1
UN/ID No.: UN1037
Label: Flammable Gas, Red Label

Environment hazard: This gas will be dissipated rapidly in well-ventilated areas. Additional environmental data are available for Ethyl Chloride, as follows:

ETHYL CHLORIDE: Log Kow = 1.43. Water Solubility = 0.574g/100 ml water ppm at 20□C. Biodegradation: May be potentially biodegradable (53-91% degradation in 28 days of incubation). Bioconcentration: none. The experimental half-life of volatilization of chloroethane from water at 1 mg/mL = 21 minutes at 25□C. Estimated hydrolysis half-life = 40 days (pH 7, 25□C).

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: Ethyl Chloride is subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act, as follows:
COMPONENT SARA 302
(40 CFR 355, Appendix A) SARA 304
(40 CFR Table 302.4) SARA 313
(40 CFR 372.65)
Ethyl Chloride NO YES YES

U.S. SARA THRESHOLD PLANNING QUANTITY: Not applicable.
U.S. CERCLA REPORTABLE QUANTITY (RQ): Ethyl Chloride = 100 lbs.
CANADIAN DSL/NDSL INVENTORY STATUS: Ethyl Chloride is on the DSL Inventory.
U.S. TSCA INVENTORY STATUS: Ethyl Chloride is listed on the TSCA Inventory.

OTHER U.S. FEDERAL REGULATIONS: Ethyl Chloride is subject to the reporting requirements of Section 112(r) of the Clean Air Act. The Threshold Quantity for this gas is 10,000 lb. Compliance with the OSHA Process Safety Standard (29 CFR 1910.119) may be applicable to operations involving the use of Ethyl Chloride. Under this regulation Ethyl Chloride 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: Ethyl Chloride is covered under specific State regulations, as denoted below:
Alaska - Designated Toxic and Hazardous Substances: Ethyl Chloride. California - Permissible Exposure Limits for Chemical Contaminants: Ethyl Chloride. Florida - Substance List: Ethyl Chloride. Illinois - Toxic Substance List: Ethyl Chloride. Kansas - Section 302/313 List: No. Massachusetts - Substance List: Ethyl Chloride.
Michigan Critical Materials Register: Ethyl Chloride. Minnesota - List of Hazardous Substances: Ethyl Chloride.
Missouri - Employer Information/Toxic Substance List: Ethyl Chloride. New Jersey - Right to Know Hazardous Substance List: Ethyl Chloride. North Dakota - List of Hazardous Chemicals, Reportable Quantities: No.
Pennsylvania - Hazardous Substance List: No. Rhode Island - Hazardous Substance List: Ethyl Chloride.
Texas - Hazardous Substance List: Ethyl Chloride. West Virginia - Hazardous Substance List: Ethyl Chloride.
Wisconsin - Toxic and Hazardous Substances: Ethyl Chloride.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Ethyl Chloride is on the California Proposition 65 lists. WARNING: This product contains a chemical known to the State of California to cause cancer.

LABELING:
DANGER: Extremely flammable gas. Contains gas under pressure; may explode if heated. May form explosive mixtures with air. May cause suffocation by displacing oxygen in the air. Suspected of causing cancer. May cause damage to liver and kidney. May cause irritation to skin, eyes, and mucous membranes. May cause anesthetic effects. Harmful to aquatic life with long lasting effects. May cause frostbite.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.

HISTORY:

Date of printing:	5/29/2015
Date of issue/revision:	5/29/2015
Date of previous issue:	12/1/2014

DISCLAIMER

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