

**MATERIAL SAFETY DATA SHEET****ETHYL CHLORIDE**

Product Name:	Ethyl Chloride
Chemical Name:	Chloroethane
Common Names/Synonyms:	Monochloroethane, Chlorene, Chloroethyl

Company Identification:	Hazel Mercantile Limited
Company Identification: (INDIA)	701/712 A, Embassy Centre, Nariman Point, Mumbai - 400 021.
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1. Composition, Information on Ingredients

INGREDIENT	CHLOROETHANE FORMULA: C ₂ H ₅ CL CAS: 75-00-3
% VOLUME	>99.7
PEL-OSHA1	1000 PPM
TLV-ACGIH2	TWA 100 PPM
LD50 OR LC50	TWA LC50 160 GM/M3/2H
ROUTE/SPECIES	(RAT)

2. Hazards Identification

EMERGENCY OVERVIEW	Slight irritant to eyes and mucous embrates. Anesthetic or narcotic effect at high concentrations. Extremely flammable.
Route Of Entry:	
Skin Contact	Yes
Skin Absorption	No
Eye Contact	Yes
Inhalation	Yes
Ingestion	No



HEALTH EFFECTS:

Exposure Limits	Yes
Irritant	Yes
Sensitization	No
Teratogen	No
Reproductive Hazard	Yes
Mutagen	Yes
Synergistic Effects	Other Agents That Depress The Central Nervous System
Carcinogenicity:	
Ntp:	No
Iarc:	No
Osha:	No

Eye effects	Ethyl chloride is a slight irritant to the mucosal tissues and eyes
Skin effects	Slight irritant to the skin and mucosal tissues.
Ingestion effects	None known. Ingestion is unlikely
Inhalation effects	Inhalation at concentrations of approximately 2% (molar) has an anesthetic or narcotic effect causing headache dizziness, and possibly nausea. At higher concentrations it can cause unconsciousness. Prolonged exposure to high concentrations has resulted in death

3. First aid measures

Eyes	Flush eyes immediately with lukewarm water for at least 15 minutes. A physician should see the patient promptly
Skin	Remove contaminated clothing and flush affected areas with lukewarm water. Do not use hot water!!
Ingestion	None required
Inhalation	Prompt medical attention is mandatory in all cases of overexposure. Rescue personnel should be equipped with self-contained breathing apparatus and be cognizant of extreme fire and explosion hazard. Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be moved to an uncontaminated area and given artificial resuscitation and supplemental oxygen. Medical assistance should be sought immediately. Further treatment should be symptomatic and supportive. The physician should be instructed not to use adrenaline as a stimulant in cases of ethyl chloride poisoning.



4. Fire Fighting Measures

Conditions Of Flammability	FLAMMABLE IN AIR
Flash Point	(-) 50 DEG CEL
Autoignition Temperature	519 DEG CEL LEL(%): 3.8 UEL(%): 15.4
Hazardous Combustion Products	PHOSGENE AND HYDROGEN CHLORIDE
Sensitivity To Mechanical Shock	NONE
Sensitivity To Static Discharge	NOT AVAILABLE
Fire And Explosion Hazards	Flammable over a wide range of concentrations in air. Forms explosive mixtures in air. If flame is extinguished and flow of gas continues, increase ventilation to prevent explosive mixture formation in low areas or pockets.
Extinguishing Media	Carbon dioxide or dry chemical.
Fire Fighting Instructions	Fire fighters should use self-contained breathing apparatus to protect them from toxic combustion products. If possible, stop the flow of gas and allow fuel to consume itself. Use water spray to cool adjacent areas.

5. Accidental Release Measures

Evacuate all personnel from affected area. Use appropriate protective equipment. If leak is in user's equipment, be certain to purge piping with inert gas prior to attempting repairs. If leak is in container or container valve.

6. Handling And Storage

Dry ethyl chloride can be handled in most common materials of construction. Gasketing materials should be teflon®, buna s®, or buna n®. Do not use pvc, polypropylene, hypalon®, natural or butyl rubber. Use only in well-ventilated areas. Valve protection caps must remain in place unless container is secured with valve outlet piped to use point. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure reducing regulator when connecting cylinder to lower pressure (<300 psig) piping or systems. Do not heat cylinder by any means to increase the discharge rate of product from the cylinder.

Protect containers from physical damage. Store in cool, dry, well-ventilated area away from heavily trafficked areas and emergency exits. Do not allow the temperature where containers are stored to exceed 130of (54oc). Containers should be stored upright and firmly secured to prevent falling or being knocked over. Full and empty containers should be segregated. Use a "first in-first out" inventory system to prevent full containers being stored for excessive periods of time. Post "no smoking or open flames" signs in the storage or use area. There should be no sources of ignition in the storage or use area.

Never carry a compressed gas cylinder or a container of a gas in cryogenic liquid form in an enclosed space such as a car trunk, van or station wagon. A leak can result in a fire, explosion, asphyxiation or a toxic exposure.



7. Exposure Controls, Personal Protection

EXPOSURE LIMITS:	
INGREDIENT	CHLOROETHANE
FORMULA:	C2H5CL
CAS:	75-00-3
% VOLUME	>99.7
ENGINEERING CONTROLS:	
Hood with forced ventilation. Use local exhaust to prevent accumulation above the exposure limit.	
Eye/Face Protection	Safety goggles or glasses
Skin Protection	Protective gloves: teflon ®, or kel-f ®. Do not use pvc, natural rubber, butyl rubber or polypropylene.
Respiratory Protection	Positive pressure air line with mask & escape bottle or self-contained breathing apparatus should be available for emergency use.
Other General Protection	Safety shoes, safety shower, eyewash "fountain", faceshield

8. Physical and Chemical Properties

Physical State	GAS (AT ROOM TEMP.)
Vapor Pressure	20.3 PSIA
Vapor Density (Air = 1)	2.22 (STP)
Evaporation Point	NOT AVAILABLE
Boiling Point	12.2 DEG CEL
Freezing Point	-139 DEG CEL
Solubility (H2O)	SLIGHTLY SOLUBLE
Odor And Appearance	Colorless Gas With Pungent Ethereal Odor

9. Stability and Reactivity

Stability:	Stable
Incompatible Materials:	When Dry, It Is Non-Reactive With Most Commonly Used Materials.
Hazardous Decomposition Products:	Thermal Decomposition Yields Phosgene And Hydrogen Chloride
Hazardous Polymerization:	Will Not Occur.

10. Toxicological Information

Reproductive:	Toxic effects to spermatogenesis observed in experimental rats exposed for 4 hours at 60 mg/m3.
Mutagenic:	Mutations seen on s. Typhimurium screening test.
Tumorigenic:	Inhalation exposure produced tumors in experimental rats and mice after 6 hour exposure at 15,000 ppm.
Other:	Changes in liver and body weight observed in experimental rats and mice following inhalation.



11. Disposal Considerations

Do not attempt to dispose of residual waste or unused quantities. Return in the shipping container properly labeled, with any valve outlet plugs or caps secured and valve protection cap in place to BOC gases or authorized distributor for proper disposal.

12. Transport Information

Proper Shipping Name:	ETHYL CHLORIDE
Hazard Class:	2.1
Identification Number:	UN 1037
Shipping Label:	FLAMMABLE GAS

13. Regulatory Information

Ethyl Chloride is listed under the accident prevention provisions of section 112(R) of the clean air act (CAA) with a threshold quantity (TG) of 10,000 pounds.

14. Other Information

Compressed gas cylinders shall not be refilled without the express written permission of the owner. Shipment of a compressed gas cylinder which has not been filled by the owner or with his/her (written) consent is a violation of transportation regulations.

MSDS Creation Date:	September 10, 2007
Revision #0 Date	

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