MATERIAL SAFETY DATA SHEET

Ethylene Dichloride

MSDS Name:	**Ethylene Dichloride**
Synonyms:	Dichloroethane ; EDC ; DCE

Company Identification: (INDIA)	Veritas House, 70 Mint Road, Fort, Mumbai - 400 001. INDIA
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Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
107-06-2	1,2-Dichloroethane	99.9+%	203-458-1

Hazard Symbols:	T F
	
Risk Phrases:	45 11 22 36/37/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Highly flammable. Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause cancer.

Potential Health Effects

Eye:	Causes severe eye irritation. Contact with liquid or vapor causes severe burns and possible irreversible eye damage. Causes redness and pain.
Skin:	Causes mild skin irritation. May be absorbed through the skin. Causes redness and pain.
Ingestion:	Harmful if swallowed. May cause central nervous system depression, kidney damage, and liver damage. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause effects similar to those for inhalation exposure.
Inhalation:	Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. May cause liver and kidney damage.
Chronic:	Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated eye contact may cause conjunctivitis. May cause liver and kidney damage.

Section 4 - First Aid Measures

Eyes:	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin:	Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion:	If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.
Inhalation:	Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Notes to Physician:	

Section 5 - Fire Fighting Measures

General Information:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back.
Extinguishing Media:	For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective.

Section 6 - Accidental Release Measures

General Information:	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:	Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool.

Section 7 - Handling and Storage

Handling:	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Use with adequate ventilation. Do not get on skin and clothing. Keep container tightly closed. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood.
Storage:	Keep away from heat, sparks, and flame. Store in a tightly closed container. Keep under a nitrogen blanket. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:	
	Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Exposure Limits	CAS# 107-06-2:
	United Kingdom, WEL - TWA: 5 ppm TWA; 21 mg/m3 TWA United Kingdom, WEL - STEL: 15 ppm STEL; 63 mg/m3 STEL
	United States OSHA: 50 ppm TWA; 100 ppm Ceiling
	Belgium - TWA: 10 ppm VLE; 41 mg/m3 VLE
	France - VME: 10 ppm VME; 40 mg/m3 VME
	Germany: 5 ppm TWA; 20 mg/m3 TWA
	Japan: 10 ppm OEL; 40 mg/m3 OEL
	Malaysia: 10 ppm TWA; 40 mg/m3 TWA
	Netherlands: 1.5 ppm MAC; 7 mg/m3 MAC
	Russia: 10 mg/m3 TWA (vapour)
	Spain: 5 ppm VLA-ED; 20 mg/m3 VLA-ED

Personal Protective Equipment

Eyes:	Wear chemical splash goggles.
Skin:	Wear appropriate protective gloves to prevent skin exposure.
Clothing:	Wear appropriate protective clothing to prevent skin exposure.
Respirators:	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Color:	colorless
Odor:	chloroform-like
pH:	Not available
Vapor Pressure:	65mmHg @29 deg C
Viscosity:	0.8 mPas @20 deg C
Boiling Point:	81 - 85 deg C @760mmHg
Freezing/Melting Point:	-35 deg C (-31.00°F)
Autoignition Temperature:	440 deg C (824.00 deg F)
Flash Point:	13 deg C (55.40 deg F)
Explosion Limits: Lower:	6.2 Vol %
Explosion Limits: Upper:	15.9 Vol %
Decomposition Temperature:	Not available
Solubility in water:	8.7 g/l (20°C)
Specific Gravity/Density:	1.250
Molecular Formula:	C2H4Cl2
Molecular Weight:	98.96

Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Incompatible materials, light, ignition sources, excess heat, electrical sparks.
Incompatibilities with Other Materials	Strong oxidizing agents, reducing agents, bases, alkali metals, aluminum, liquid ammonia, nitric acid, organic peroxides.
Hazardous Decomposition Products	Hydrogen chloride, carbon monoxide, carbon dioxide.
Hazardous Polymerization	Will not occur.

Section 11 - Toxicological Information

RTECS#:	CAS# 107-06-2: KI0525000
LD50/LC50:	RTECS: **CAS# 107-06-2:** Draize test, rabbit, eye: 63 mg Severe; Draize test, rabbit, eye: 500 mg/24H Mild; Draize test, rabbit, skin: 500 mg/24H Mild; Inhalation, mouse: LC50 = 1060 mg/m3/6H; Inhalation, rat: LC50 = 1000 ppm/7H; Inhalation, rat: LC50 = 5100 mg/m3/6H; Oral, mouse: LD50 = 413 mg/kg; Oral, mouse: LD50 = 413 mg/kg; Oral, rabbit: LD50 = 860 mg/kg; Oral, rabbit: LD50 = 0.7 mL/kg; Oral, rat: LD50 = 500 mg/kg; Skin, rabbit: LD50 = 2800 mg/kg; Other: Skin, rabbit: 625 mg mild
Carcinogenicity:	1,2-Dichloroethane - California: carcinogen, initial date 10/1/87 NTP: Suspect carcinogen IARC: Group 2B carcinogen
Other:	See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity:	Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	ETHYLENE DICHLORIDE	ETHYLENE DICHLORIDE	ETHYLENE DICHLORIDE
Hazard Class:	3 (6.1)	3 (6.1)	3 (6.1)
UN Number:	1184	1184	1184
Packing Group:	II	II	II

USA RQ: CAS# 107-06-2: 100 lb final RQ; 45.4 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T F

Risk Phrases:

- R 45 May cause cancer.
- R 11 Highly flammable.
- R 22 Harmful if swallowed.
- R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

- S 53 Avoid exposure - obtain special instructions before use.
- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

- CAS# 107-06-2: 3

Canada

- CAS# 107-06-2 is listed on Canada's DSL List

US Federal

- TSCA
- CAS# 107-06-2 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date:	July 22, 2015
Revision #0 Date	

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