

Product Name: 1,2-Dichloroethane

Company: Bandar Imam Petrochemical Company-Kimia

Catalogue NO: S.ET.1150.3

Unit: CA

Section 1: Identification

Product Name: 1,2-Dichloroethane	Other Name: Ethylene dichloride (EDC)			<input type="checkbox"/> Flammability <input type="checkbox"/> Health <input type="checkbox"/> Instability <input type="checkbox"/> Special hazard	
Formula: C ₂ H ₄ Cl ₂	CAS NO: 107-06-2	UN NO: 1150	Class: 3		
Identified Uses: Reagent for analysis. Scientific research and development.					
Telephone & Telefax: 0615225-2300 , 2311	Address Email : dmoffice@bipc.org.ir				
Emergency phone number: 2222-125-119 / 2242-115					

Section 2: Hazard(s) Identification

Classification of the substance or mixture: Flammable liquid, Acute toxicity(Oral, Inhalation), Skin irritation, Eye irritation, Carcinogenicity, Specific target organ toxicity - single exposure, Category 3, Respiratory system.
 For the full text of the H-Statements mentioned in this Section, see Section 16.

Label elements: Classification (REGULATION (EC) No 1272/2008) Signal word: Danger	Hazard pictogram		
	Flammable	Toxic	Harmful

Hazard statements: May cause cancer. Highly flammable liquid and vapour. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Toxic if inhaled. May cause respiratory irritation.

Precautionary statements

Prevention:

Obtain special instructions before use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment.

Response:

IF ON SKIN: Wash with plenty of soap and water.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

Storage:

Store in a well-ventilated place. Keep container tightly closed.

Other hazards: None known.

Section 3: Composition/Information on Ingredients

Substance:				
Name	Formula	CAS NO	Concentration%	Classification
Ethylene dichloride (EDC)	C ₂ H ₄ Cl ₂	107-06-2	>= 80 % - <= 100 %	Flammable liquid, Acute toxicity(Oral, Inhalation), Skin irritation, Eye irritation, Carcinogenicity, Specific target organ toxicity - single exposure, Category 3, Respiratory system.

Mixture: Not applicable.

Section 4: First-Aid Measures

Description of first aid measures

General advice: First aider needs to protect himself.

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

Following skin contact : Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

After eye contact:rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed: irritant effects, Cough, respiratory paralysis, Shortness of breath, Dizziness, Headache, Tiredness, CNS disorders, Coma, death.

Indication of any immediate medical attention and special treatment needed:

Subsequently administer: activated charcoal (20 - 40 g in 10% slurry). Laxative: Sodium sulfate (1 tablespoon/1/4 l water).

Section 5: Fire-Fighting Measures

Extinguishing Media

Suitable extinguishing media: Water, Foam, Carbon dioxide (CO₂), Dry powder.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.



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Special hazards arising from the substance or mixture

Combustible. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air at ambient temperatures. Pay attention to flashback. Development of hazardous combustion gases or vapours possible in the event of fire. Fire may cause evolution of: Hydrogen chloride gas.

Advice for firefighters

Special protective equipment for firefighters: Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6: Accidental Release Measures

Personal precautions ,protective equipment and emergency procedures for:

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

Environmental precautions: Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up: Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

Reference to other sections: Indications about waste treatment see section 13.

Section 7: Handling and Storage

Precautions for safe handling

Advice on safe handling: Observe label precautions. Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion: Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures: Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorised persons. Protected from light. Recommended storage temperature see product label.

Specific end use(s): Apart from the uses mentioned in section 1. no other specific uses are stipulated.

Section 8: Exposure Controls/Personal Protection

Engineering measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7.

Individual protection measures: Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye/face protection : Safety glasses.

Hand protection:

	Full contact	splash contact
Glove material	Viton (R)	polychloroprene
Glove thickness	0,70 mm	0,65 mm
Break through time	> 480 min	> 10 min

Other protective equipment: Flame retardant antistatic protective clothing.

Respiratory protection : required when vapours/aerosols are generated. Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds.

Environmental exposure controls : Do not let product enter drains. Risk of explosion.

Section 9: Physical and Chemical Properties

From: Liquid	Melting point/range: -35,5 °C	Density: 1,25 g/cm ³ at 20 °C	PH: No information available.
Color: colorless	Boiling point/range: 83,5 - 84,1 °C	Relative vapour density : 4,1 at 20 °C	FLASH POINT: 13 °C at 1.013 hPa
Odour: of solvents	Vapour pressure: 102 hPa at 25 °C	Decomposition temperat: 300 °C	AUTOIGNITION TEMP: 413 C
MW: 99 g/mol	Viscosity dynamic: 0,82 - 0,84 mPa.s at 20 °C	Oxidizing properties: none	LEL (V/V %): 6,2 %(V)
Water solubility: 7,9 g/l at 25 °C	Explosive properties:-		UEL (V/V %): 15,9 %(V)

Section 10: Stability and Reactivity

Reactivity: Vapours may form explosive mixture with air.

Chemical stability: Sensitivity to light.



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Possibility of hazardous reactions
Exothermic reaction with: Alkaline earth metals, alkali amides, Nitric acid, nitrogen oxides, Oxidizing agents, Chlorine, powdered magnesium, Zinc.
Risk of explosion with: Alkali metals, powdered aluminium, Powdered metals, Potassium, nitrogen dioxide.
Conditions to avoid: Exposure to light. Warming.
Incompatible materials: various plastics, Light metals, Iron
Hazardous decomposition products: Hydrogen chloride gas. in the event of fire: See section 5.

Section 11: Toxicological Information

Information on toxicological effects		Endpoint	Species	Exposure route	Value
OT:3 - 100 ppm	TLV-TWA:1 PPM	LD50	rabbit	Skin	2800 mg/kg
IDLH: 1000 PPM	TLV-STEL: 2 PPM	LC50	rat	inhalation	12000 PPM/1h

Sensitisation: negative **Carcinogenicity:** May cause cancer. **Teratogenicity:** This information is not available.
Specific target organ toxicity - single exposure: May cause respiratory irritation.
Specific target organ toxicity - repeated exposure: This information is not available.
Aspiration hazard : This information is not available.

Further information
Systemic effects: CNS disorders, Dizziness, Headache, Tiredness, Coma, respiratory paralysis, death.
Absorption may result in damage of the following: Liver, Kidney.
 Other dangerous properties can not be excluded., This substance should be handled with particular care.

Section 12: Ecological Information (non-mandatory)

Toxicity
 Toxicity to fish:
 flow-through test LC50 Pimephales promelas (fathead minnow): 136 mg/l; 96 h
 Analytical monitoring: yes
 OECD Test Guideline 203
Persistence and degradability:
Biodegradability: Not rapidly biodegradable .
Bioaccumulative potential: Bioaccumulation is not expected.
Mobility in soil: Yes.
Other adverse effects: Discharge into the environment must be avoided.

Section 13: Disposal Considerations (non-mandatory)

Sewage disposal-relevant information : Mix the material with sand and sodium carbonate. Pour waste into a dry container. Close the lid, but do not tighten it. And, after moving to the incinerator, burn the waste. Rinse the area with water.
Waste treatment of containers/packagings : See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.
Additional information: External treatment and disposal of waste should comply with applicable local and/or national regulations.

Section 14: Transport Information (non-mandatory)

Basic shipping description: In accordance with TDG Transport hazard class(es) : Flammable Liquid.	Labelling 	
Proper shipping name: ETHYLENE DICHLORIDE	UN number: 1184	Class: 3 , 6.1
Packing group : II	Environmentally hazardous: -	Special precautions for user : Yes

Section 15: Regulatory Information

Safety , Health and Environmental regulations / legislation specific for the substance or mixture
EU regulations
Major Accident Hazard: SEVESO III
Legislation: ACUTE TOXIC .FLAMMABLE LIQUIDS.
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer: deplete the ozone layer.
Substances of very high concern (SVHC): This product does contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 59 above the respective regulatory concentration limit of > 0.1 % (w/w).
 Contains: 1,2-Dichloroethane
National legislation: Storage class 3
Chemical safety assessment: For this product a chemical safety assessment was not carried out.

Section 16: Other information

Further information
Full text of H-Statements referred to under sections 2 and 3.
H225: Highly flammable liquid and vapour.



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H302: Harmful if swallowed.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H331: Toxic if inhaled.

H335: May cause respiratory irritation.

H350: May cause cancer.

Training advice: Provide adequate information, instruction and training for operators.

Precautionary statements

Prevention

P201 : Obtain special instructions before use.

P210 : Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P240 : Ground/bond container and receiving equipment.

Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Further information

Restricted to professional users.

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Reference:

according to Regulation (EC) No. 1907/2006

DISCLAIMER OF LIABILITY

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.