บริษัท โมเดอนเคมีเคิล จำกัด (สำนักงานใหญ่) (MODERN CHEMICAL CO.,LTD. (Head Office))
82/80 ซอยเอกมัย 22(นวลน้อย) ถ.สุขุมวิท 63 แขวงคลองตันเหนือ เขตวัฒนา กรุงเทพมหานคร 10110โทร0-2715-0897-9 แฟกซ์.0-2392-3410-3
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SAFETY DATA SHEET

METHYLENE CHLORIDE

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product name: METHYLENE CHLORIDE

Recommended use: Chemical for industrial

Manufacturer/Supplier: **MODERN CHEMICAL CO.,LTD.**
82/80 Soi Ekamai 22 (Nuannoi), Sukhumvit 63,
Klong Tan Nuea, Watthana, Bangkok 10110

Telephone No: 0-2715-0897-9, 0-2392-3410-3

Fax No: 0-2715-0908-9, 0-2391-1571-2

Emergency Telephone No: 0-2715-0897-9, 0-2392-3410-3

2. HAZARDS IDENTFICATION

Label elements

Pictogram

Signal word WARNING

Hazard statement(s)

1.) Suspected of causing cancer.

Precautionary statement(s)

1.) Use personal protective equipment as required.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonym: Methane dichloride, Methylene bichloride, Methylene dichloride, DCM, Dichloromethane

Ingredients	% (w/w)	CAS NO.
METHYLENE CHLORIDE	100	75-09-2

4. FIRST AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation: Move to fresh air in case of accidental inhalation of vapors. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing. Get medical aid.

Skin contact: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Eye contact: If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes. Obtain medical attention.

Ingestion: **Do not induce vomiting**. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing medial:

Water, carbon dioxide, foam, dry powder

Unsuitable Extinguishing Media:

Do not use water jet.

Specific hazards arising from Chemicals:

Carbon monoxide, Carbon dioxide, Hydrogen chloride gas, halogenated compounds.

Special protective equipment for fire-fighters:

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personal to safe areas.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and Material for Containment and Clean Up:

Soak up with inert absorbent material (e.g. sand, silica gel). Prevent liquid entering sewers,basements and workpits. Clean up spills immediately. Remove all sources of ignition. Provide ventilation.

7. HANDING AND STORAGE

Precautions for Safe Handling & Product Transfer:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid contact with heat, sparks and flame. Use only with adequate ventilation. Avoid breathing vapor or mist.

Conditions for Safe Storage & Unsuitable Materials:

Keep tightly closed at room temperature in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits: TWA 50 ppm

Appropriate Engineering Controls: Provide exhaust ventilation or other engineering control to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Individual Protection Measures

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. Use a full-face respirator

Hand protection: Handle with gloves

Eye protection: Goggles giving complete protection to eyes.

Skin and body Protection: Chemical resistant apron protective clothing.

Hygiene measure: No data available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form, Color and Odor: liquid, colourless, characteristic	**Evaporation rate :** 0.71
Melting Point: (-97) - (-96.7) °C	**Specific gravity :** 1.3190 - 1.3266 g/cm^3 at 25 °C
pH: N/A	**Solubility in water :** Slightly soluble
Boiling point : 39.75 – 40 °C	**Viscosity :** N/A
Vapour pressure: 350 – 470.9 mbar at 20 °C	**Vapour density:** 2.93 g/l
Lower explosion limits: 12 - 13 %Vol	**Upper explosive limit:** 19 - 23 %Vol
Auto-ignition temperature: 556 – 662 °C	**Flash point:** N/A
Odour threshold: 214 ppm	**Flammability (solid, gas):** N/A
Decomposition temperature: N/A	**Solubility in other solvents:** Methanol, Diethyl ether, n-Octanol, Acetone.
n-octanol/water partition coefficient (log P_{ow}): 1.25	

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under recommended storage conditions. May form explosive mixtures in atmospheres having high oxygen content.

Reactions: No data available.

Possibility of Hazardous Reactions: No data available

Conditions to avoid Heat , flames, sparks, attacks some plastics, rubber, coatings and confined spaces.

Materials to be avoided: Alkali metals, strong oxidizing agents, strong bases, chemically active metals, aluminum, amines, magnesium, strong acids and vinyl compounds.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, Hydrogen chloride**,** phosgene.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: LC50 (inhalation, rat): 52000 mg/m^3

LD50 (oral, rat): 1600 mg/kg

Sensitization: After inhalation: mucosal irritations; inebriation, narcosis, unconsciousness. After skin contact; Slight irritations, Degreasing effect on the skin, possibly followed by secondary inflammation. After eyes contact; slight irritations. Risk of corneal clouding. After swallowing; nausea, vomiting. After accidental swallowing the

substance may pose a risk of aspiration. Passage into the lung (vomiting)can result in a condition resembling pneumonia (chemical pneumonitis).

After absorption of large quantities: CNS disorders, drowsiness,dizziness, drop in blood pressure, cardiac dysrhythmia, respiratory paralysis, depressed respiration, inebriation, narcosis. The following applies to aliphatic halogenated hydrocarbons in general: systemic effect: narcosis, cardiovascular disorders. Toxic effect on liver and kidneys.

Chonic toxicity: Possibly carcinogenic to humans.

Further toxicological information: No data available

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish: LC_{50} - Pimephales promelas: 193 - 196 mg/l - 96h

Toxicity to daphnia and other aquatic invertebrates:

EC_{50} - Daphnia magna: 1682 mg/l - 48h

Toxicity to algae: No data available

Toxicity to bacteria: No data available

Biodegradability remark: Possibly hazardous short term degradation product are not likely. However, long term degradation products may arise.

Bioaccumulative potential: No data available

Mobility: No data available

Affected in any other way: No data available

13. DISPOSAL CONSIDERATIONS

Material Disposal: There are no uniform EC Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding law and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste or burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

Container Disposal: Disposal in compliance with official regulations. Handle contaminated packaging as hazardous waste in the same way of the substance itself. If not officially specified differently,non-contaminated packaging may be treated like household waste or recycled.

14. TRANSPORT INFORMATION

ADR/RID

UN-No: 1593 Class: 6.1 Packing group: III

Proper shipping name: DICHLOROMETHANE

IMDG

UN-No: 1593 Class: 6.1 Packing group: III

Ems: F-A S-A

Proper shipping name: DICHLOROMETHANE

IATA

UN-No: 1593 Class: 6.1 Packing group: III

Proper shipping name: DICHLOROMETHANE

15. REGURATORY INFORMATION

Federal and State Regulations: California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Methylene chloride California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Methylene chloride Pensylvania RTK: Methylene chloride TSCA8(b) inventory: Methylene Chloride SARA 313 toxic chemical notification and release reporting: Methylene chloride CERCLA: Hazardouse substances.: Methylene chloride

Other Regulations: OSHA: Hazardous by definition of hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada): CLASS D-18: Material causing immediate and serious toxic effects (TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC): R22-Harmful if swallowed. R38- Irritating to skin. R41- Risk of serious damage to eyes. R45-May cause cancer.

HMIS(U.S.A):

Health Hazard: 2

Fire Hazard: 1

Reacticity: 0

Personal Protection: h

National Fire Protection Association(U.S.A.):

Health: 2

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves.

Lab coat.

Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

European/International Regulations European Labeling in Accordance with EC Directives Hazard Symbols: XNRisk Phrases: R 40 Limited evidence of a carcinogenic affect. Safety Phrases: S23 Do not inhale gas/vapour/spray. S24/25 Avoid contact with skin and eyes.

S36/37 Wear suitable protective clothing and gloves. WGK(Water Danger/Protection) CAS# 75-09-2:2 United Kingdom Occupational Exposure Limits

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available

Chemical Safety Assessment

no data available

16. OTHER INFORMATION

Modern Chemical Co.,Ltd. provides the information contained herein in good faith but makes no representation as to its comprehensive or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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