



# MATERIAL SAFETY DATA SHEET

Product Name : Methylene Chloride

Formula : **CH<sub>2</sub>CL<sub>2</sub>**

## SECTION 1. CHEMICAL PRODUCER AND COMPANY IDENTIFICATION

<b>Manufacturer</b> : Formosa Plastics Corporation 100, Shui-Guan Rd., Jen-Wu Shiang, Kaohsiung County, Taiwan, R.O.C. Telephone : 886-7-3711411 Ext. 5454	<b>Emergency Phone</b> : 886-7-3711411 Ext. 5460	<b>Fax</b> : 886-7-3710450
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## SECTION 2. COMPOSITION, INFORMATION ON INGREDIENTS

<b>Component</b> : Methylene Chloride
<b>Synonyms</b> : <b>Dichloromethane</b> ; Methylene Dichloride; Methylene Bichloride; Methane Dichloride
<b>CAS Number</b> : 75-09-2
<b>Typical Wt. %</b> : > 99.9%

## SECTION 3. HAZARDS IDENTIFICATION

<b>Emergency Overview</b> : A clear colorless liquid with ethereal odor. Highly toxic and cancer suspect agent. Causes irritation to eye and skin. May cause headache, nausea, unconsciousness and possible death.
<b>Potential health Effects</b> : Inhalation: May result in irritation of the respiratory tract or anesthetic death. External: Cause painful irritation and possible burns. Ingestion: Possible esophageal burns and vomits.
<b>NFPA Hazard Codes</b> : Health: 2      Flammability: 0      Reactivity: 1
<b>WHMIS Classification</b> : D2
<b>EC Classification</b> : Carcinogen Category 3

## SECTION 4. FIRST AID MEASURES

<b>Inhalation</b> : Remove the exposed person to fresh air, restore and support breathing as needed. Get medical help.
<b>Skin Contact</b> : Remove contaminated clothing and rinse the affected area with plenty of water. Get medical attention immediately.
<b>Eye Contact</b> : Flush with flooding amount of water for at least 15 min. Do not keep eyes tightly shut. Consult a physician immediately.
<b>Ingestion</b> : Do not induce vomiting. Have person drink 240~300 ml of water to dilute. Call a physician immediately.
<b>Notes to Physician</b> : Treat symptomatically and supportively.

## SECTION 5. FIRE FIGHTING MEASURES

<b>Fire Properties</b> : Autoignition Temperature : 556°C (1033°F) Flash Point : Not available
<b>Extinguishing Media</b> : Dry Chemical, CO <sub>2</sub> , Foam, Water Fog
<b>Fire Fighting Instructions</b> : Use water spray to cool fire-exposed containers and to flush spills away from exposures. Firemen should wear self-contained breathing apparatus.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

**Spill or Leak :** Evacuate unnecessary personnel, eliminate all ignition sources immediately, and provide adequate ventilation. Cleanup personnel need wear suitable protective equipment. Contain large spills and collect waste with an inert material. Keep waste out of sewers, watersheds, and waterways.

**SECTION 7. HANDLING AND STORAGE**

**Handling :** Avoid contact with eyes, skin, and clothing. Always wash thoroughly after using this material and before eating and drinking. Do *not* eat, drink, or smoke in any work place.

**Storage :** Store in closed, moisture-proof containers in a cool, dry, well-ventilated area away from source of ignition, and incompatible chemicals. Protect containers from physical damage.

**SECTION 8. EXPOSURE CONTROLS, PERSONAL PROTECTION**

**Engineering Controls :** Provide local dilution exhaust ventilation systems.

**Personal Protective Equipment :**

1. Use chemical safety goggles.
2. Wear a self-contained breathing apparatus with a full face-piece operated in the pressure-demand or positive-pressure mode.
3. Wear impervious boots, gloves, and clothing.

**Exposure Guidelines :** TWA (ACGIH) : 50 ppm (3,540 mg/m<sup>3</sup>)  
 TWA (OSHA) : 25 ppm  
 STEL (OSHA) : 125 ppm

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b> : Liquid	<b>Physical Form</b> : Liquid
<b>Appearance</b> : Clear, colorless	<b>Odor</b> : Ethereal odor
<b>pH</b> : Neutral	<b>Boiling Point</b> : 39.8°C
<b>Decomposition Point</b> :	<b>Flash Point</b> : None (Test Method: TCC)
<b>Autoignition Temperature</b> : 556°C	<b>Explosion Limit</b> : LEL: 12%, UEL: 19%
<b>Vapor Pressure</b> : 400 mmHg @ 24°C	<b>Vapor Density</b> : 2.93 (AIR = 1)
<b>Liquid Density</b> : 1.3266 g/ml ( H <sub>2</sub> O = 1 )	<b>Solubility in Water</b> : 1.32g/100ml @ 20°C

**SECTION 10. STABILITY AND REACTIVITY**

**Stability** : Stable

**Conditions to Avoid** : Avoid all exposure to sources of ignition, heat, and incompatible chemicals.

**Incompatibilities** : Avoid contact with strong oxidizers, caustics, active metals (powdered aluminum, magnesium, sodium, lithium, potassium), flame, and spark.

**Hazardous Decomposition** : Combustion can produce chlorine, phosgene gas, and hydrogen chloride.

**SECTION 11. TOXICOLOGICAL INFORMATION**

**Acute Toxicity** : Moderately Toxic : inhalation, ingestion  
 LC<sub>50</sub> = 14400 ppm/7H (Inhalation, mouse)  
 LC<sub>50</sub> = 88 gm/m<sup>3</sup>/30M (Inhalation, rat)  
 LD<sub>50</sub> = 1600mg/kg (Oral, rat)

**Local Effect** : Irritant : inhalation, skin, eye

**Sensitization** :

**Chronic Toxicity** : Can cause damage to liver and kidneys. Suspected carcinogen based on 2-yr. bioassay in rats that showed liver tumors.

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<b>Special Effect</b> : Carcinogenicity :	ACGIH	:	A3 – Animal carcinogen
	NIOSH	:	Occupational carcinogen
	NTP	:	Suspect carcinogen
	OSHA	:	Possible select carcinogen
	IARC	:	Group 2B carcinogen

**SECTION 12. ECOLOGICAL INFORMATION**

**Effects on Environment** : Harmful to aquatic life. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals, and it is expected to have a half-life of greater than 30 days.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Waste Disposal** : Dispose in accordance with all applicable regulations.

**SECTION 14. TRANSPORT INFORMATION**

<b>DOT/IMO/ICAO/IMDG Name</b>	: Dichloromethane
<b>DOT/IMO/ICAO/IMDG Hazard Class</b>	: 6.1
<b>UN Number</b>	: 1593
<b>DOT Label</b>	: Poison Substance
<b>DOT/IMO/ICAO/IMDG Packing Group</b>	: III

**SECTION 15. REGULATORY INFORMATION**

<b>U.S. Regulations</b> :	TSCA Inventory Status	:	Y
	CERCLA Section 103	:	Y
	SARA Section 313	:	Y
	SARA Section 311/312	:	
	Acute	:	Y
	Chronic	:	Y
	Fire	:	N
	Reactivity	:	N
	Sudden Release	:	N
	OSHA Process Safety	:	N
<b>European Regulation</b>	: EC Number (EINECS):	200-838-9	

**SECTION 16. OTHER INFORMATION**

<b>Edition Date</b>	: Jan. 10, 1995
<b>Revision Date</b>	: Nov. 17, 2002
<b>Revision Number</b>	: 3

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