



# Material Safety Data Sheet

Revision date: 01-Dec-2005

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

**Catalog Number:** 194042  
**Product name:** DICHLOROMETHANE ACS REAGENT GRADE  
**Synonyms:** Methylene Chloride; Freon 30; Methane Dichloride; Methylene Bichloride; Methylene Dichloride; Not Available

**Supplier:** MP Biomedicals, LLC  
Parc d'Innovation  
BP 50067  
67402 ILLKIRCH CEDEX  
France

**Emergency telephone number:** "n° ORFILA" (01-45-42-59-59)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Weight %	EC No.	Classification	Notes	Annex No.:
DICHLOROMETHANE	75-09-2	> 25%	200-838-9	Xn; N	--	602-004-00-3

## 3. HAZARDS IDENTIFICATION

### Indication of Danger:

Xn - Harmful.  
N - Dangerous For The Environment.



### Risk Phrases:

R40 - Limited evidence of a carcinogenic effect.

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### Category of Danger:

Harmful , Carc. cat. 3 , Lachrymator, Dangerous for the environment

## 4. FIRST AID MEASURES

**General advice:** In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

<b>Inhalation:</b>	Move to fresh air. Call a physician immediately.
<b>Skin contact:</b>	Rinse immediately with plenty of water for at least 15 minutes
<b>Ingestion:</b>	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician Drink 1 or 2 glasses of water. Induce vomiting, but only if victim is fully conscious. Induce vomiting if person is conscious. Obtain medical attention.
<b>Eye contact:</b>	Flush eye(s) immediately with plenty of water. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

## 5. FIRE-FIGHTING MEASURES

<b>Suitable extinguishing media:</b>	Use media appropriate for the surrounding fire.
<b>Specific hazards:</b>	No flash point in conventional closed tester, but forms flammable vapor-air mixtures in larger volumes and may be an explosion hazard in a confined space. Combustion may produce irritants and toxic gases. Combustion by-products include hydrogen chloride and phosgene.
<b>Special protective equipment for firefighters:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
<b>Flash point:</b>	Not determined
<b>Autoignition temperature:</b>	605 °C (DIN 51794)

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions:</b>	Use personal protective equipment.
<b>Environmental precautions:</b>	Prevent product from entering drains.
<b>Methods for cleaning up:</b>	Sweep up and shovel into suitable containers for disposal.

## 7. HANDLING AND STORAGE

<b>Storage:</b>	ROOM TEMPERATURE
<b>Handling:</b>	Use only in area provided with appropriate exhaust ventilation.
<b>Safe handling advice:</b>	Wear personal protective equipment. Remove and wash contaminated clothing before reuse.
<b>Technical measures/storage conditions:</b>	Keep containers tightly closed in a cool, well-ventilated place. Keep container tightly closed in a dry and well-ventilated place.
<b>Incompatible products:</b>	Oxidising and spontaneously flammable products

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components	Belgium OEL (TWA):	Belgium - 8 Hr VLE	Belgium - Liste non Limitative de Substances et Procèdes	Belgium - Liste de Substances et Preparations Cancérigènes
DICHLOROMETHANE		50 ppm VLE; 177 mg/m <sup>3</sup> VLE		

**Engineering measures:** Ensure adequate ventilation, especially in confined areas.

**Respiratory protection:** Breathing apparatus needed only when aerosol, vapor or dust is formed.

**Skin and body protection:** Impervious clothing Long sleeved clothing

**Eye protection:** Safety glasses with side-shields

**Hand protection:** Gloves

Components	UK EH40 MEL (TWA):	United Kingdom - Maximum Exposure Limit	United Kingdom - Carcinogens	United Kingdom - The Red List:
DICHLOROMETHANE	100 ppm TWA; 350 mg/m <sup>3</sup> TWA			

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance and Odor</b>	Colorless; penetrating ether-like odor
<b>Physical state:</b>	Liquid
<b>Formula:</b>	CH <sub>2</sub> Cl <sub>2</sub>
<b>Molecular weight:</b>	84.93
<b>Melting point/range:</b>	-96.7 °C
<b>Boiling point/range:</b>	39.8 °C at 1013 hPa
<b>Density:</b>	1.3266 (water = 1)
<b>Vapor pressure:</b>	400 mm Hg at 24 °C
<b>Evaporation rate:</b>	27.5 (butyl acetate = 1)
<b>Vapor density:</b>	2.93 (air = 1)
<b>Solubility (in water):</b>	Moderately soluble
<b>Flash point:</b>	Not determined
<b>Autoignition temperature:</b>	605 °C (DIN 51794)

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under recommended storage conditions.
<b>Polymerization:</b>	None under normal processing.
<b>Hazardous decomposition products:</b>	Chloride/Hydrochloric acid , phosgene
<b>Materials to avoid:</b>	-
	Strong oxidizers and caustics; chemically active metals, such as aluminum or magnesium powders, sodium, potassium
<b>Conditions to avoid:</b>	Exposure to air or moisture over prolonged periods.

## 11. TOXICOLOGICAL INFORMATION

### Product Information

#### Acute toxicity

Components	RTECS Number:	Selected LD50s and LC50s
DICHLOROMETHANE	PA8050000	Inhalation LC50 Rat : 52 gm/m <sup>3</sup> Inhalation LC50 Mouse : 14400 ppm/7H Oral LD50 Rat : 1600 mg/kg

**Chronic toxicity:** Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness.

**Local effects:** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

<b>Specific effects:</b>	May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting, headache.
<b>Primary irritation:</b>	No data is available on the product itself.
<b>Carcinogenic effects:</b>	Possible carcinogen
<b>Mutagenic effects:</b>	No data is available on the product itself.
<b>Reproductive toxicity:</b>	No data is available on the product itself.

Components	NIOSH - Health Effects	NIOSH - Target Organs
DICHLOROMETHANE	has produced tumors of the lung, liver, salivary, and mammary glands in animals	skin, CVS, eyes, CNS (in animals: lung, liver, salivary gland and mammary gland tumors)

## 12. ECOLOGICAL INFORMATION

<b>Mobility:</b>	No data available
<b>Bioaccumulation:</b>	No data available
<b>Ecotoxicity effects:</b>	No data available
<b>Aquatic toxicity:</b>	May cause long-term adverse effects in the aquatic environment.

Components	U.S. DOT - Appendix B - Marine Pollutan	U.S. DOT - Appendix B - Severe Marine Pollutants	United Kingdom - The Red List:
DICHLOROMETHANE	Not Listed	Not Listed	Not Listed

Components	Germany VCI (WGK)	World Health Organization (WHO) - Drinking Water	Ecotoxicity - Fish Species Data
DICHLOROMETHANE	2	20 ug/L	LC50 (96 hr) fathead minnow:34-193 mg/L. Cond:Flow-through.;LC50 (96 hr) rainbow trout:10.95-15.32 mg/L. Cond:Flow-through, 13.3 °C, pH 7.8, 106 mg/L.;LC50 (96 hr) bluegill:220 mg/L.:

Components	Ecotoxicity - Freshwater Algae Data	Ecotoxicity - Microtox Data	Ecotoxicity - Water Flea Data
DICHLOROMETHANE	Not Listed	EC50 (5,15 min) Photobacterium phosphoreum:1000-3230 mg/L Microtox test.:	EC50 (48 hr) water flea:140-330 mg/L. Cond:Static, 21-23 °C, pH 6.8-7.2, 66-79 mg/L CaCO3.

Components	EPA - ATSDR Priority List	EPA - HPV Challenge Program Chemical List	California - Priority Toxic Pollutants
DICHLOROMETHANE	Rank (of 275): 074	indicator 0; Fully sponsored	Not Listed

Components	California - Priority Toxic Pollutants	California - Priority Toxic Pollutants
DICHLOROMETHANE	Water and organisms = 4.7 ug/L; organisms only = 1,600 ug/L	Not Listed

## 13. DISPOSAL CONSIDERATIONS

**Waste from residues / unused products:**

Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.

**Contaminated packaging:**

Do not re-use empty containers

**14. TRANSPORT INFORMATION**

**UN/Id No:** 1593

**ADR/RID**

**Proper shipping name:** Dichloromethane  
**Hazard Class** 6.1 -  
 Toxic substances - oral  
**Packing group:** III  
**Classification code:** T1  
**HIN:** 6.1B

**IMDG/IMO**

**Proper shipping name:** Dichloromethane

**ICAO/IATA**

**Proper shipping name:** Dichloromethane  
**IATA Hazard Label(s):** Toxic  
**Hazard Class** 6.1 -  
 Toxic substances - oral  
**Packing group:** III

Components	CERCLA/SARA - Reportable Quantities
DICHLOROMETHANE	final RQ = 1000 pounds (454 kg)

**15. REGULATORY INFORMATION**

**Contains:** DICHLOROMETHANE ACS REAGENT GRADE

**Classification:** Classification by EU - Annex 1 to Council Directive 67/548/EEC

**Indication of Danger:**

Xn - Harmful.

N - Dangerous For The Environment.



**Risk Phrases:** R40 - Limited evidence of a carcinogenic effect.

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Phrases:** S23 - Do not breathe fumes or vapors

S29 - Do not empty into drains.

S36/37 - Wear suitable protective clothing and gloves.

S24/25 - Avoid contact with skin and eyes.

Components	EU EINECS List -	Germany TA-Luft List - Section	Germany VCI (WGK)	Switzerland Giftliste:
DICHLOROMETHANE	200-838-9; CH <sub>2</sub> Cl <sub>2</sub>	Not Listed	2	Not Listed

Classification according to VbF: -

## 16. OTHER INFORMATION

**Prepared by:** Health & Safety

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**End of Safety Data Sheet**