



**DICHLOROMETHANE  
CAS No 75-09-2**

**MATERIAL SAFETY DATA SHEET  
SDS/MSDS**

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifiers**

Product name : Dichloromethane

CAS-No. : 75-09-2

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Industrial & for professional use only.

**1.3 Details of the supplier of the safety data sheet**

Company : Central Drug House (P) Ltd  
7/28 Vardaan House  
Ansari Road Daryaganj  
New Delhi-110002  
INDIA

Telephone : +91 11 49404040

Email : [care@cdhfinechemical.com](mailto:care@cdhfinechemical.com)

**1.4 Emergency telephone number**

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

Carcinogenicity (Category 2), H351

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

Specific target organ toxicity - repeated exposure, Oral (Category 2), Liver, Blood, H373

Specific target organ toxicity - repeated exposure, Inhalation (Category 2), Central nervous system, H373

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 Label elements**

**Labelling according Regulation (EC) No 1272/2008**

Pictogram



Signal word

Warning

Hazard statement(s)

H315

Causes skin irritation.

H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H371	May cause damage to organs if inhaled.
H371	May cause damage to organs if swallowed.
Precautionary statement(s)	
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental Hazard Statements	none

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms : Methylene chloride  
DCM

Formula : CH<sub>2</sub>Cl<sub>2</sub>  
Molecular weight : 84.93 g/mol  
CAS-No. : 75-09-2  
EC-No. : 200-838-9  
Index-No. : 602-004-00-3

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration
<b>Methylene chloride</b>			
CAS-No.	75-09-2	Skin Irrit. 2; Eye Irrit. 2; Carc.	<= 100 %
EC-No.	200-838-9	2; STOT SE 3; H315, H319,	
Index-No.	602-004-00-3	H351, H336	

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

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

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2 Special hazards arising from the substance or mixture**

Carbon oxides, Hydrogen chloride gas

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information**

No data available

**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

**6.2 Environmental precautions**

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

**6.3 Methods and materials for containment and cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For disposal see section 13.

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Heat sensitive. Handle and store under inert gas. Storage class (TRGS 510): Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

**Derived No Effect Level (DNEL)**

Application Area	Exposure routes	Health effect	Value
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Workers	Inhalation	Acute systemic effects	706 mg/m <sup>3</sup>
Workers	Inhalation	Long-term systemic effects	353 mg/m <sup>3</sup>
Workers	Skin contact	Long-term systemic effects	4750mg/kg BW/d
Consumers	Ingestion	Long-term systemic effects	0.06mg/kg BW/d
Consumers	Inhalation	Long-term systemic effects	88.3 mg/m <sup>3</sup>
Consumers	Skin contact	Long-term systemic effects	2395mg/kg BW/d
Consumers	Inhalation	Acute systemic effects	353 mg/m <sup>3</sup>

### Predicted No Effect Concentration (PNEC)

Compartment	Value
Soil	0.583 mg/kg
Marine water	0.194 mg/l
Fresh water	0.54 mg/l
Marine sediment	1.61 mg/kg
Fresh water sediment	4.47 mg/kg
Onsite sewage treatment plant	26 mg/l
Aquatic intermittent release	0.27 mg/l

## 8.2 Exposure controls

### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Personal protective equipment

#### Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engine protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Control of environmental exposure

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

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- a) Appearance                      Form: liquid  
                                                  Colour: colourless

b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	Melting point/range: -97 °C
f) Initial boiling point and boiling range	39.8 - 40 °C
g) Flash point	No data available
h) Evaporation rate	0.71
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	Upper explosion limit: 19 %(V) Lower explosion limit: 12 %(V)
k) Vapour pressure	470.9 hPa at 20.0 °C
l) Vapour density	2.93 - (Air = 1.0)
m) Relative density	1.325 g/mL at 25 °C
n) Water solubility	slightly soluble
o) Partition coefficient: n-octanol/water	log Pow: 1.25
p) Auto-ignition temperature	556.1 °C 662.0 °C
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

## 9.2 Other safety information

Relative vapour density 2.93 - (Air = 1.0)

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

Contains the following stabiliser(s):

2-Methyl-2-butene (>0.005 - <0.015 %)

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Heat, flames and sparks. Exposure to sunlight.

## 10.5 Incompatible materials

Alkali metals, Aluminum, Strong oxidizing agents, Bases, Amines, Magnesium, Strong acids and strong bases, Vinyl compounds

## 10.6 Hazardous decomposition products

Other decomposition products - No data available

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas  
In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - > 2,000 mg/kg(Methylene chloride)

LC50 Inhalation - Rat - 4 h - 60.14 mg/l(Methylene chloride)

LD50 Dermal - Rat - > 2,000 mg/kg(Methylene chloride)  
(OECD Test Guideline 402)

#### Skin corrosion/irritation

Skin - Rabbit(Methylene chloride)

Result: Irritating to skin. - 4 h

(OECD Test Guideline 404)

#### Serious eye damage/eye irritation

Eyes - Rabbit(Methylene chloride)

Result: Irritating to eyes.

#### Respiratory or skin sensitisation

- Mouse(Methylene chloride)

Did not cause sensitisation on laboratory animals.

(OECD Test Guideline 429)

#### Germ cell mutagenicity

Chromosome aberration test in vitro(Methylene chloride)

Result: positive

Ames test(Methylene chloride)

Salmonella typhimurium

Result: positive

OECD Test Guideline 474(Methylene chloride)

Mouse - male and female - Bone marrow

#### Carcinogenicity

Limited evidence of carcinogenicity in animal studies(Methylene chloride)

Suspected human carcinogens(Methylene chloride)

IARC: 2A - Group 2A: Probably carcinogenic to humans (Methylene chloride)

#### Reproductive toxicity

No data available(Methylene chloride)

#### Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.(Methylene chloride)

#### Specific target organ toxicity - repeated exposure

No data available

#### Aspiration hazard

No data available(Methylene chloride)

#### Additional Information

RTECS: PA8050000

Dichloromethane is metabolized in the body producing carbon monoxide which blood, reducing the oxygen-carrying capacity of the blood., Acts as a simple asphyxiant by displacing air., anesthetic effects, Difficulty in breathing, Headache, Dizziness, Prolonged or repeated contact with skin may cause:, defatting, Dermatitis, Contact with eyes can cause:, Redness, Blurred vision, Provokes tears., Effects due

to ingestion may include:, Gastrointestinal discomfort, Central nervous system depression, Paresthesia., Drowsiness, Convulsions, Conjunctivitis., Pulmonary edema. Effects may be delayed., Irregular breathing., Stomach/intestinal disorders, Nausea, Vomiting, Increased liver enzymes., Weakness, Heavy or prolonged skin exposure may result in the absorption of harmful amounts of material., Abdominal pain(Methylene chloride)

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(Methylene chloride)

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 193.00 mg/l - 96 h(Methylene chloride)

Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - 27 mg/l - 48 h(Methylene chloride)

### **12.2 Persistence and degradability**

Biodegradability aerobic - Exposure time 28 d(Methylene chloride)  
Result: 68 % - Readily biodegradable.  
(OECD Test Guideline 301D)

### **12.3 Bioaccumulative potential**

Does not bioaccumulate.

### **12.4 Mobility in soil**

No data available(Methylene chloride)

### **12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### **12.6 Other adverse effects**

## **SECTION 13: Disposal considerations**

### **13.1 Waste treatment methods**

#### **Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

#### **Contaminated packaging**

Dispose of as unused product.

## **SECTION 14: Transport information**

### **14.1 UN number**

ADR/RID: 1593

IMDG: 1593

IATA: 1593

### **14.2 UN proper shipping name**

ADR/RID: DICHLOROMETHANE

IMDG: DICHLOROMETHANE

IATA: Dichloromethane

<b>14.3</b>	<b>Transport hazard class(es)</b> ADR/RID: 6.1	IMDG: 6.1	IATA: 6.1
<b>14.4</b>	<b>Packaging group</b> ADR/RID: III	IMDG: III	IATA: III
<b>14.5</b>	<b>Environmental hazards</b> ADR/RID: no	IMDG Marine pollutant: no	IATA: no
<b>14.6</b>	<b>Special precautions for user</b> No data available		

#### SECTION 15: Regulatory information

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

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

##### 15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

#### SECTION 16: Other information

##### Full text of H-Statements referred to under sections 2 and 3.

H315 Causes skin irritation.

H319 Causes serious eye irritation. H335

May cause respiratory irritation. H336 May

cause drowsiness or dizziness. H351

Suspected of causing cancer.

H371 May cause damage to organs if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

##### Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.cdhfinechemical.com](http://www.cdhfinechemical.com) for additional terms and conditions of sale.