

<b>Material Safety Data Sheet</b>	<b>Mono Chloro Benzene</b>
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**1 Product And Company Identification :**

Product Name	: <b>Mono Chloro Benzene</b>
Other/Generic Names	: Chlorobenzene; Phenyl chloride MCB
CAS No.	: 108-90-7
Product use	: Used as a solvent and chemical intermediate for dyes, pigment, agrochemicals and wide range of organic synthesis It is used mainly as an insecticidal fumigant against moths, as a space deodorizer, as a general insecticide and fungicide on crops, and as a chemical intermediate for plastics, dyes, pharmaceuticals and other organic compounds.
Supplier	Deepak Nitrite Ltd. Aaditya-I, National Highway No. 8, Chhani Road, Vadodara - 390 024, India Manufacturing facilities at : Vadodara, Roha, Taloja & Hyderabad. Contact no. : +91-9904406400
For Chemical Emergency	Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887

**2 Hazard Identification :**

<b>GHS classification (Classification according to Regulation (EC) No 1272/2008)</b>	<b>Hazard statement (s)</b>
Health Hazards : 1 <b>Flammability:</b> 3 <b>Physical hazards:</b> 0	H226: Flammable liquid and vapour. H332: Harmful if inhaled. H411: Toxic to aquatic life with long lasting effects.
<b>EC classification (Classification according to Directive 67/548/EEC)</b>	
<b>T:</b>	R 10: Flammable. R 20: Harmful by inhalation.
<b>N :</b>	R 51/53: Toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.
Acute aquatic toxicity,	Chronic aquatic toxicity Category 2

<b>Hazard pictograms</b>		
		
<b>Signal word</b>	Warning	

<b>3 Composition / Information On Ingredients :</b>	
<b>Chemical formula</b>	: C <sub>6</sub> H <sub>5</sub> Cl
<b>Common Name</b>	: MCB
<b>Synonyms</b>	: Chlorobenzene ; Phenyl chloride MCB
<b>Molecular weight</b>	: 112.56 g/mol
<b>CAS No.</b>	: 108-90-7
<b>Index No.</b>	: 602-033-00-1
<b>UN No.</b>	: 1134
<b>EINECS No.</b>	: 203-628-5

<b>4 First Aid Measures :</b>
<b>General advice</b> Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
<b>If inhaled</b> If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.
<b>In case of skin contact</b> Wash off with soap and plenty of water. Consult a physician.
<b>In case of eye contact</b> Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>If swallowed</b> 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 media**

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**Further information**

Use water spray to cool unopened containers.

Flash Point : 27 °C

**6 Accidental Release Measures :**

**Personal precautions**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

**7 Handling & Storage :**

**Handling**

Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

**Storage**

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. Store in cool place.

**8 Exposure Control / Personal Protection :**

**Personal protective equipment**

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of 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).

**Hand protection**

Handle with gloves.

**Eye protection**

Face shield and safety glasses

**Hygiene measures**

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

**9 Physical And Chemical Properties :**

Appearance	: Liquid
Colour	: Colorless - Very pale yellow
Odour	: Characteristic
pH ( 1% Solution)	: (H <sub>2</sub> O, 20 °C) neutral
Boiling Point/range	: 132 °C (1013 hPa)
Melting point	: - 45 °C
Flash Point	: 27 °C
Autoignition temperature	: 590 °C
Lower explosion limit	: 1.3 - 11 %(V)
Upper explosion limit	: 7.1 %
Vapour Pressure	: 12 hPa (20 °C)
Density	: 1.11 g/cm <sup>3</sup> (20 °C)
Solubility water	: 0.4 g/l (20 °C) Miscible with : Ethanol, Ether, Benzene, Chloroform
Relative vapour density	: 3.88

**10 Stability And Reactivity :**

**Storage stability:**

Stable under recommended storage conditions.

**Materials to avoid**

Strong oxidizing agents

**Possibility of hazardous reactions**

Vapours may form explosive mixture with air.

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### Condition to avoid

Heat, flames and sparks.

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

## 11 Toxicological Information :

<b>Acute toxicity</b>	: LC50 Inhalation - rat - 2965 ppm LD50 rat 1100 mg/kg
<b>RTECS#</b>	: CZ0175000
<b>Category of danger</b>	: Flammable liquid, Harmful by ingestion., Carcinogen
<b>Carcinogenicity</b>	This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.
<b>Storage class</b>	: 3 Flammable Liquids
<b>Target organs</b>	: Liver, Kidney, Central nervous system, Thymus., Spleen., Bone marrow, Lungs, Testes.
<b>Potential health effects</b>	: <b>Inhalation</b> May be harmful if inhaled. May cause respiratory tract irritation. <b>Skin</b> May be harmful if absorbed through skin. May cause skin irritation. <b>Eyes</b> May cause eye irritation. <b>Ingestion</b> Harmful if swallowed.

## 12 Ecological Information :

Acute fish toxicity LC <sub>50</sub>	: LC <sub>50</sub> - Cyprinodon variegatus (sheepshead minnow) - 10 mg/l - 96.0 h
Acute toxicity to aquatic invertebrates EC <sub>50</sub>	: LC <sub>50</sub> - Lepomis macrochirus (Bluegill) - 4.5 - 7.4 mg/l - 76.0 h EC <sub>50</sub> - Daphnia magna (Water flea) - 4.30 - 16.00 mg/l - 24 h Persistence / degradability: 0% (by BOD), 5% (by UV-VIS) WGK 2 water endangering

## 13 Disposal Considerations :

### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

### Packaging

Dispose of as unused product.

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### 14 Transport Information :

**UN No. : 1134**

**Hazard Class : 3**

**Packing Group : III**

Declaration (railroad and road) ADR, RID  
UN 1134 Chlorbenzen, 3, III

Declaration (transport by sea) IMDG-Code  
UN 1134 CHLOROBENZENE, 3, III, Segregation Group: 10 (Liquid halogenated hydrocarbons)

Declaration (transport by air) IATA-DGR  
UN 1134 CHLOROBENZENE, 3, III

### 15 Regulatory Information :

#### Safety Information according to GHS

##### Hazard Statement (s)

H226: Flammable liquid and vapour.  
H332: Harmful if inhaled.  
H411: Toxic to aquatic life with long lasting effects

##### Precautionary Statement (s)

P210-Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
P233-Keep container tightly closed.  
P241+P242+P243-Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against ignition by the static discharge and the spark.  
P261-Avoid breathing.  
P271-Use only outdoors or in a well-ventilated area.  
P273: Avoid release to the environment.

##### Signal Word

Warning

##### Hazard Pictogram(s):



**RTECS#** : CZ0175000

#### Labeling according to EC directives

**Hazard symbols** : C, N

**Risk phrases** : **R10** Flammable.  
**R20** Harmful by inhalation.  
**R51** Toxic to aquatic organisms.  
**R53** May cause long-term adverse effects in the aquatic environment.

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**Safety phrases** : **S2** Keep out of the reach of children.  
**S24/25** Avoid contact with skin and eyes.  
**S61** Avoid release to the environment. Refer to special instructions/Safety data sheets

**OSHA Hazards**

Flammable liquid, Harmful by ingestion., Carcinogen

**DSL Status**

All components of this product are on the Canadian DSL list.

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

Chlorobenzene CAS-No. 108-90-7

**SARA 311/312 Hazards**

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

**16 Other Information:**

**DISCLAIMER** : Deepak Nitrite Ltd. provides the information contained herein in good faith but makes no representation as to comprehensiveness or accuracy. This document is only as a guide to a properly trained person, for the appropriate precautions and handling of the material. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. The data does not signify any warranty with regard to the product's properties.