

## BENZYL CHLORIDE

SECTION - I IDENTIFICATION	
<b>Product Name</b>	:Benzyl Chloride
<b>Synonyms</b>	:Omega-Chlorotoluene; Chlorophenylmethane; Chloromethyl)Benzene; Alpha-Chlorotoluene; Toly chloride
<b>Uses</b>	:Widely used as an intermediate for manufacturing organic compounds including benzyl alcohol, benzyl cyanide and other benzyl derivative compounds.
<b>REACH Registration No.</b>	:
<b>Submission No.</b>	: Mruchem
<b>Organisation</b>	: Near Saibaba Mandir,
<b>Location</b>	: Lehripura New Road,
	: Vadodara, Gujarat - India - 390001
<b>Emergency Contact No.</b>	: _ 91 -8087147166

## SECTION - II HAZARD IDENTIFICATION

### 2.1 Classification

Classification according to CLP/GHS (Directive 1272/2008/EC):

Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Phrase (s)
Carc. 1B Acute Tox. 3 Acute Tox. 4 STOT RE 2 STOT SE 3 Skin Irrit. 2 Eye Dam. 1	H350 H331 H302 H373  H335 H315 H318	May cause cancer Toxic if inhaled Harmful if swallowed May cause damage to organs through prolonged or repeated exposure May cause respiratory irritation Causes skin irritation Causes serious eye damage

Classification according to 67/548/EC:

Classification	Risk phrases	Safety phrases	Indication(s) of danger
Carc. Cat. 2 T Xnl Xi	R45 R22 R23 R37/38 R41 R48/22	S53 S45	

### 2.2 Labelling

Labelling according to CLP/GHS:

Pictogram Signal Word Code(s)	Hazard Statement Code(s)	Suppl. Hazard statement code(s)
GHS05 GHS06	H350 H331 H302 H373	May cause cancer Toxic if inhaled Harmful if swallowed May cause damage to organs through prolonged or

H335  
 H315  
 H318

 repeated exposure  
 May cause respiratory irritation  
 Causes skin irritation  
 Causes serious eye damage

**Pictogram(s)**

**Labelling according to 67/548/EC:**
**Risk Phrases:**

R45 May cause cancer.

R22 Harmful if swallowed.

R23 Toxic by inhalation.

R37/38 Irritating to respiratory system and skin. R41 Risk of serious damage to eyes.

R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.

**Safety Phrases:**

S53 Avoid exposure - obtain special instructions before use .

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**SECTION - III COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Entity	CAS No.	Proportions (%)	EINECS	Symbol	Determination of the risk
Benzyl Chloride	100-44-7	99-100	202-853-6	T	TOXIC

**SECTION - IV FIRST AID MEASURES**

**Inhalation** :If exposure is limited normally no further aid required. If not breathing give artificial respiration. If breathing of victim is difficult administer oxygen for a maximum period of one hour.

**Eye contact** :Flush eyes with water for 15 minutes. Hold eyelids open while washing. Do not put oils or ointment into eyes.

**Skin Contact** :Immediately remove contaminated clothing, including shoes. Wash affected area with plenty of soap and water for at least 20 minutes

**Swollowed** :Drink large amounts of fluid. If victim is conscious give a glassful or more of lukewarm water with 1 tsp of salt/glass. If victim does not vomit after taking salt water, have him stick his finger down his throat to aid vomiting.After vomiting, give more water to further dilute concentration.

**SECTION - V FIRE FIGHTING MEASURES**

**Extinguishing Media** :Use dry chemical or Carbon Dioxide. Do not use water.

**Hazards from** :These products are carbon oxides (CO, CO<sub>2</sub>), halogenated compounds.

**Combustion Products**

**Special Protective** :Fire fighters should wear a self contained breathing apparatus and full

**Precautions and** protective clothing along with protective equipment.

**Equipments**

## SECTION - VI ACCIDENTAL RELEASE MEASURES

**Emergency Procedures** :Absorb with an inert material and put the spilled material in an appropriate waste disposal.

**Methods and materials for containment and clean up** :Damaged/cooled tanks must be emptied.  
 Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite.  
 Absorbed substance: shovel into open drums.  
 Neutralize spill with soda (sodium carbonate) or slaked lime.  
 Neutralized substance: wash down with an excess of water.

## SECTION - VII HANDLING AND STORAGE

**Handling of Substance** :- Observe very strict hygiene - avoid contact  
 - Do not discharge the waste into the drain  
 - Avoid contact of substance with water  
 - Remove contaminated clothing immediately  
 - Clean contaminated clothing

**Storage** : Keep container tightly closed  
 - Limited time of storage  
 - Store in a cool area  
 - Store in a dry area  
 - Keep away from: heat sources, oxidizing agents, metals, combustible materials, highly flammable materials

**Shelf Life** : 365 days

## SECTION - VIII EXPOSURE CONTROL / PERSONAL PROTECTION

**Personal protective equipment:**

**Respirator** :Gas mask with filter type A  
 - Gas mask with filter type B  
 - Dust/aerosol mask with filter type P2

**Eyes** :Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

**Hands** :Protective gloves should be worn.

**Clothing** :Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Protective measures and personal hygiene:** Change the contaminated clothing. Wash hands and face after working with this substance. Use cream barrier-protective to the skin after working with substance.

**National Exposure Standards**  
 Airborne Exposure Limits:  
 -OSHA Permissible Exposure Limit (PEL):

1 ppm (TWA).

-ACGIH Threshold Limit Value (TLV):

1 ppm (TWA), A3: Animal carcinogen.

- NIOSH Immediately Dangerous to Life or Health (IDLH): 10 ppm

#### Engineering

#### Controls

The control measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release. Use a non-sparking, grounded ventilation system separate from other exhaust ventilation systems. Exhaust directly to the outside. Supply sufficient replacement air to make up for air removed. Have a safety shower/eye wash fountain readily available in the immediate work area.

### SECTION - IX PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Colourless liquid	<b>Ignition Temperature</b>	: 1085 ° F
<b>Formula</b>	C <sub>7</sub> H <sub>7</sub> C	<b>Specific Heat Value</b>	: Not Applicable
<b>Odor</b>	Irritating, unpleasant odour.	<b>Particle Size</b>	: Not Applicable
<b>Vapor Pressure</b>	: 4.36	<b>Volatile Organic Compounds (VOC) content</b>	: No Data
<b>Vapor Density</b>	: 1.6 @ 20C (68F)	<b>Evaporation Rate</b>	: Not Applicable
<b>Boiling Point</b>	: 179 ° C	<b>Viscosity (27 deg C)</b>	: No Data
<b>Melting Point</b>	: -43 ° C	<b>Percent Volatile</b>	: No Data
<b>Solubility in water</b>	Insoluble	<b>Octanol/Water partition coefficient</b>	: No Data
<b>Specific Gravity (27 deg C)</b>		<b>Saturated Vapor Concentration</b>	: Not Applicable
<b>Flash Point</b>	: 67 °C, 153 ° F	<b>Additional Characteristics</b>	: Not Applicable
<b>pH</b>	: No Data	<b>Flame Propagation/Burning Rate of Solid Materials</b>	: Not Applicable
<b>Flammability Limits (as percentage volume in air)</b>	:	<b>Properties of materials that may initiate or contribute to fire intensity</b>	Not Applicable
<b>Lower Explosion Limit</b>	: Not Applicable	<b>Potential for Dust Explosion</b>	: Not applicable. Product is a liquid.
<b>Upper Explosion Limit</b>	: Not Applicable		

### SECTION - X STABILITY AND REACTIVITY

<b>Stability</b>	: Unstable. Inhibitors such as propylene oxide, sodium carbonate solution, lime, or trimethylamine must be used to prevent polymerization. When heated to decompose it emits toxic fumes of Cl <sub>2</sub> .
<b>Conditions to avoid</b>	: Heat, flames, ignition sources and incompatibles.

<b>Materials to avoid</b>	: Reacts with water or steam to produce toxic and corrosive fumes. Can react vigorously with oxidizing materials.
<b>Hazardous decomposition products</b>	: May produce carbon monoxide, carbon dioxide, hydrogen chloride and phosgene when heated to decomposition.

## SECTION - XI TOXICOLOGICAL INFORMATION

**Acute Toxicity: LD50 (rat, oral)** : 1231 mg/kg

**Further information:**

Inhalation rat LD50: 150 ppm/2H. Investigated as a tumorigen, mutagen, and reproductive effector.

## SECTION - XII ECOLOGICAL INFORMATION

**Ecotoxicity:** Not available

**Toxicity to aquatic species:**

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

**Bio-Accumulation:** The products of degradation are as toxic as the original product.

**Mobility:** If released into water the product will sink. The product is involatile and insoluble and will accumulate in the ground.

## SECTION - XIII DISPOSAL CONSIDERATIONS

**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 laws and regulations. We recommend that you contact the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.

**Special Precautions for land fill or incineration**

Disposal in accordance with local legal provisions.

## SECTION - XIV TRANSPORT INFORMATION

**ADR/RID:**

<b>UN No.</b>	: 1738
<b>Transportation name:</b>	: Benzyl Chloride
<b>Chemical name:</b>	: Benzyl Chloride
<b>ADR Class</b>	: 6.1
<b>Packing group</b>	: II

**Domestic water transport (AND(R))**

<b>UN No.</b>	: 1738
<b>Transportation name:</b>	: Benzyl Chloride
<b>Chemical name:</b>	: Benzyl Chloride
<b>ADR Class</b>	: 6.1
<b>Packing group</b>	: II

**Sea transport (IMDG):**

**UN No.** : 1738  
**Transportation name:** : Benzyl Chloride  
**Chemical name:** : Benzyl Chloride  
**ADR Class** : 6.1  
**Packing group** : II

**Air transport (ICAO/IATA):**

**UN No.** : 1738  
**Transportation name:** : Benzyl Chloride  
**Chemical name:** : Benzyl Chloride  
**ADR Class** : 6.1  
**Packing group** : II

### SECTION - XV REGULATORY INFORMATION

Enumerated in substance list Annex I of directive 67/548/EEC et sequens



TOXIC

R45 : May cause cancer

R22 : Also harmful if swallowed

R23 : Also toxic by inhalation

R37/38 : Irritating to respiratory system and skin  
 R41 : Risk of serious damage to eyes

R48/22 : Also harmful: danger of serious damage to health by prolonged exposure if swallowed

S53 : Avoid exposure - obtain special instructions before use

S45 : In case of accident or if you feel unwell, seek medical advice (show the label where possible)

Professional users. Warning! Avoid exposure - obtain special instructions

### SECTION - XVI OTHER INFORMATION

**Full wording of R sentences and H sentences from Section 3.**

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**Other sources of information:**

IUCLID Data Bank (European Commission - European Chemicals Bureau)

ESIS - European Chemical Substances Information System (European Chemicals Bureau)

**Additional Information:**

**Document**

**Revision**

**Date:**

1st Jan,2024