

Material Safety Data Sheet



BENZYL CHLORIDE

VERSION : 05
REVISION DATE : 14/06/2025
EFFECTIVE DATE : 16/06/2025

Product Code : 12754

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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : BENZYL CHLORIDE
Product code : 16915
Identification of the product : BENZYL CHLORIDE
CAS No : 100-44-7
EC-No. : 202-853-6
EC Index-No. : 602-037-00-3

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3. Details of the supplier of the safety data sheet

Company identification MOLYCHEM INDIA LLP
Office: Maker Tower 'E', 41-A2, 4th Floor, Above Maker Arcade, Cuffe Parade, Mumbai 400 005 (INDIA)
Tel: +91 22 4066 8111, 2205 7772 .
Email : info@molychem.net
Works: Plot No. B/9, Badlapur M.I.D.C.,
OPP.Shobhavat Textile Co., Kulgaon, Badlapur (E),
Dist.-Thane-421 503.

1.4. Emergency telephone number

Emergency number : +91 22 4066 8111 (10:00am - 6:00 pm)

2. Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3	H226
Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 1	H318
Germ cell mutagenicity, Category 1B	H340
Carcinogenicity, Category 1B	H350
Specific target organ toxicity —	H335
Single exposure, Category 3,	
Respiratory tract irritation	H373
Specific target organ toxicity —	
Repeated exposure, Category 2	

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Full text of classification categories and H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS06



GHS02



GHS07



GHS05

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H226 - Flammable liquid and vapour.
H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H340 - May cause genetic defects.
H350 - May cause cancer.
H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s)

P280: Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
P301 + P312: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302 + P352: IF ON SKIN: Wash with plenty of water.
P304 + P340 + P311: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313: IF exposed or concerned: Get medical advice/ attention.

2.3. Other hazards

No additional information available

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3. Composition/information on ingredients

3.1. Substances

Name : BENZYL CHLORIDE
CAS-No : 100-44-7

3.2. Mixtures

Not applicable

4. First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

First-aid measures after skin contact : Wash with plenty of water/.... Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label)

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

First-aid measures after ingestion : Rinse mouth. Immediately call a POISON CENTER or doctor

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

Symptoms/effects : May cause cancer. Causes damage to organs. May cause genetic defects.

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : Harmful if swallowed

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

Treat symptomatically.

5. Firefighting measures

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5.1. Extinguishing media

Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).
Unsuitable extinguishing media : Do not use extinguishing media containing water.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Avoid contact with skin and eyes.

6.1.2. For emergency responders

Emergency procedures : Stop release.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Shovel or sweep up and put in a closed container for disposal. Clean contaminated surfaces with an excess of water. Clean up immediately by sweeping or vacuum.

6.4. Reference to other sections

No additional information available

7. Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area

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Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Store in a well-ventilated place. Keep cool.

Storage away from : Direct sunlight. Open flame. Overheating. Sparks.

Recommended storage temperature : Store below +30°C.

7.3. Specific end use(s)

No additional information available

8. Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Eye protection : Chemical goggles or face shield

Hand protection : Protective gloves

Skin protection : Wear suitable protective clothing

Respiratory protection : In case of inadequate ventilation wear respiratory protection

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : Liquid
Molecular mass : 126.59 g/mol
Colour : Colorless to pale yellow
Odour : Pungent odour.
Odour threshold : No data available
pH : No data available
Relative evaporation rate : No data available
Melting point : -43 °C
Freezing point : No data available

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Boiling point	: 177 - 181
Flash point	: 60 °C
Auto-ignition temperature	: 6270 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 1.6 at 20°C
Relative vapour density at 20 °C	: 4.36
Relative density	: 1.05 to 1.15
Density	: No data available
Solubility	: Water: Insoluble in water
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

10. Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Direct sunlight. Air contact. Moisture.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

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Skin corrosion/irritation	: Causes skin irritation
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: May cause genetic defects.
Carcinogenicity	: May cause cancer.
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified

12. Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

13. Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations	: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
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14. Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1738
UN-No. (IMDG) : 1738
UN-No. (IATA) : 1738
UN-No. (ADN) : 1738
UN-No. (RID) : 1738

14.2. UN proper shipping name

Proper Shipping Name (ADR) : BENZYL CHLORIDE
Proper Shipping Name (IMDG) : BENZYL CHLORIDE
Proper Shipping Name (IATA) : BENZYL CHLORIDE
Proper Shipping Name (ADN) : BENZYL CHLORIDE
Proper Shipping Name (RID) : BENZYL CHLORIDE
Transport document description (ADR) : UN 1738 BENZYL CHLORIDE, 6.1 (8), II, (D/E)
Transport document description (IMDG) : UN 1738 BENZYL CHLORIDE, 6.1 (8), II,
Transport document description (IATA) : UN 1738 BENZYL CHLORIDE, 6.1 (8), II,
Transport document description (ADN) : UN 1738 BENZYL CHLORIDE, 6.1 (8), II,
Transport document description (RID) : UN 1738 BENZYL CHLORIDE, 6.1 (8), II,

14.3. Transport hazard class(es)

ADR
Transport hazard class(es) (ADR) : 6.1 (8)
IMDG
Transport hazard class(es) (IMDG) : 6.1 (8)
IATA
Transport hazard class(es) (IATA) : 6.1 (8)
ADN
Transport hazard class(es) (ADN) : 6.1 (8)
RID
Transport hazard class(es) (RID) : 6.1 (8)

14.4. Packing group

Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II

14.5. Environmental hazards

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Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : TC1
Excepted quantities (ADR) : E4
Packing instructions (ADR) : P001, IBC02
Mixed packing provisions (ADR) : MP15
Portable tank and bulk container instructions (ADR) : T8
Portable tank and bulk container special provisions (ADR) : TP2
Tank code (ADR) : L4BH
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 68
EAC code : 2X

Transport by sea

Packing instructions (IMGD) : P001
IBC packing instructions (IMDG) : IBC02
IBC special provisions (IMDG) : B20
Tank instructions (IMDG) : T8
Tank special provisions (IMDG) : TP2, TP13
Stowage category (IMDG) : D

Air transport

PCA Excepted quantities (IATA) : E4
PCA Limited quantities (IATA) : Forbidden
PCA limited quantity max net quantity (IATA) : Forbidden
PCA packing instructions (IATA) : 653
PCA max net quantity (IATA) : 1 L
CAO packing instructions (IATA) : 660
CAO max net quantity (IATA) : 30L

Inland waterway transport

Classification code (ADN) : TC1
Limited quantities (ADN) : 0
Excepted quantities (ADN) : E4
Equipment required (ADN) : PP,EP,TOC ,A
Number of blue cones/lights (ADN) : 2

Rail transport

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Classification code (RID) : TC1
Limited quantities (RID) : 0
Excepted quantities (RID) : E4
Packing instructions (RID) : P001, IBC02
Mixed packing provisions (RID) : MP15
Portable tank and bulk container instructions (RID) : T8
Portable tank and bulk container special provisions (RID) : TP2
Tank codes for RID tanks (RID) : L4BH
Transport category (RID) : 2
Colis express (express parcels) (RID) : CE5
Hazard identification number (RID) : 68

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

15. Regulatory information

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

15.1.1 EU-Regulations

Not listed on REACH Annex XVII
BENZYL CHLORIDE is not on the REACH Candidate List
BENZYL CHLORIDE is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject to the Hazardous Incident Ordinance (12. BImSchV)

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

16. Other information

Abbreviations and acronyms

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Carc. 1B	Carcinogenicity, Category 1B

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Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Muta. 1B	Germ cell mutagenicity, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
CAS-No.	Chemical Abstract Service number

Safety Data Sheet (SDS), EU This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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