

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

**BENZYL CHLORIDE 99.5+%, EXTRA PURE,
STABILIZED**

CAS-No.: 100-44-7

Product Code: 0400A

Molecular Formula: C₇H₇Cl

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

1.1. Product identifier

Product form : Substance
Trade name : Benzyl Chloride 99.5+%, extra pure, stabilized
EC-No. : 202-853-6
CAS No : 100-44-7
Synonyms : Alfa-Chlorotoluene

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Company : Chemnovo Synthesis Pvt Ltd.
N-226 Near Kumbhavali Naka
Tarapur MIDC, Boisar-401 506
Palghar, Maharashtra
Telephone : +91 7400096089
Email: export@chemnovo.in

1.4. Emergency telephone number

Emergency number : + 91 7400096089 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Substances/mixtures (H290)

corrosive to metal

Category 1

Acute oral toxicity Category 4 (H302)

Acute Inhalation Toxicity - Vapors Category 3 (H331)

Skin Corrosion/Irritation Category 2 (H315)

Serious Eye Damage/Eye Irritation Category 1 (H318)

Skin Sensitization Category 1 (H317)

Germ Cell Mutagenicity Category 1B (H340)

Carcinogenicity Category 1B (H350)

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

Specific target organ toxicity - (repeated exposure) Category 2 (H373)

Full text of 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) :



Signal word (CLP) :

GHS06

Danger

Hazard statements (CLP) :

H290 - May be corrosive to metals

H302 - Harmful if swallowed

H331 - Toxic if inhaled

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

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 Combustible liquid

Precautionary statements (CLP) :

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

P280 - Wear protective gloves/protective clothing/eye protection/face protection

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : Benzyl Chloride 99.5+%, extra pure, stabilized
CAS No : 100-44-7
EC-No. : 202-853-6

Full text of R- and H-statements: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	:	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
First-aid measures after inhalation	:	Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
First-aid measures after skin contact	:	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
First-aid measures after eye contact	:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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

Causes severe eye damage. May cause allergic skin reaction. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Water spray, carbon dioxide (CO ₂), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.
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5.2. Special hazards arising from the substance or mixture

Combustible material. Containers may explode when heated. Keep product and empty container away from heat and sources of ignition. Risk of ignition.

5.3. Advice for firefighter

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	:	Ensure adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.
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6.1.2. For emergency responders

Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges.

6.2. Environmental precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed then seek immediate medical assistance

Hygiene Measures : Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame.

7.3. Specific end use(s)

Use in laboratories

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No information available

8.2. Exposure controls

Hand protection	:	Protective gloves
Eye protection	:	Chemical goggles or safety glasses
Skin and body protection	:	Long sleeved clothing
Respiratory protection	:	Wear respiratory protection

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Colorless - Amber
Odour	:	pungent
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	-39 °C / -38.2 °F
Freezing point	:	No data available
Boiling point	:	179 °C / 354.2 °F
Flash point	:	67 °C / 152.6 °F
Auto-ignition temperature	:	585 - °C / 1085 - °F

Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	1.2 mbar @ 20 °C
Relative vapour density at 20 °C	:	4.36 (Air = 1.0)
Relative density	:	No data available
Density	:	1.100
Solubility	:	Moderately soluble
Log Pow	:	2.3
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 data available

SECTION 10: Stability and reactivity

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

No information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents. Bases. Metals

10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO₂). Hydrogen chloride gas.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	Oral: Category 4, Inhalation : Category 3
Skin corrosion/irritation	:	Category 2
Serious eye damage/irritation	:	Category 1
Respiratory or skin sensitisation	:	May cause sensitization by skin contact
Germ cell mutagenicity	:	Category 1B : Animal experiments showed mutagenic and teratogenic effects
Carcinogenicity	:	Category 1B : Possible cancer hazard. May cause cancer based on animal data The table below indicates whether each agency has listed any ingredient as a carcinogen

Reproductive toxicity	:	Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	:	Category 3 : Respiratory system
Specific target organ toxicity (repeated exposure)	:	Category 2 : Respiratory system, Eyes, Skin, Liver, Central nervous system (CNS).
Aspiration hazard	:	Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity effects	:	Do not empty into drains. Do not flush into surface water or sanitary sewer system. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.
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12.2. Persistence and degradability

Readily biodegradable. May persist, based on information available. Contains substances known to be hazardous to the environment or not degradable in waste. water treatment plants.

12.3. Bioaccumulative potential

May have some potential to bioaccumulate

12.4. Mobility in soil

Spillage unlikely to penetrate soil. The product is insoluble and sinks in water. The product evaporates slowly. Is not likely mobile in the environment due its low water solubility. Spillage unlikely to penetrate soil

12.5. Results of PBT and vPvB assessment

No data available for assessment

12.6. Other adverse effects

This product does not contain any known or suspected substance

This product does not contain any known or suspected substance

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from Residues/Unused Products	:	Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.
Contaminated Packaging	:	Dispose of this container to hazardous or special waste collection point
Other Information	:	Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not let this chemical enter the environment.

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR)	:	1738
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UN-No. (IMDG)	:	1738
UN-No.(IATA)	:	1738
UN-No.(AND)	:	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

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	:	6.1 (8)
Danger labels (ADR)	:	6.1 (8)

IMDG

Transport hazard class(es) (IMDG)	:	6.1 (8)
Danger labels (IMDG)	:	6.1 (8)

IATA

Transport hazard class(es) (IATA)	:	6.1 (8)
Hazard labels (IATA)	:	6.1 (8)

AND

Transport hazard class(es) (ADN)	:	6.1 (8)
Danger labels (ADN)	:	6.1 (8)

RID

Transport hazard class(es) (RID)	:	6.1 (8)
Danger labels (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

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

14.6. Special precautions for user

- Overland transport
No data available
- Transport by sea
No data available
- Air transport
No data available
- Inland waterway transport
No data available
- Rail transport
No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Benzyl Chloride 99.5+%, extra pure, stabilized is not on the REACH Candidate List

Benzyl Chloride 99.5+%, extra pure, stabilized is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment
Take note of Dir 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

SECTION 16: Other information

Full text of R-, H- and EUH-statements:

H290	May be corrosive to metals
H302	Harmful if swallowed
H331	Toxic if inhaled
H315	Causes skin irritation
H317	May cause an allergic skin reaction
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
H224	Extremely flammable liquid and vapor
H312	Harmful in contact with skin
H319	Causes serious eye irritation
H332	Harmful 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. Chemnovo Synthesis Pvt Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.chemnovo.in for additional terms and conditions of sale.

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