

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

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

#### 1.1 Product identifiers

Product name : Benzyl chloride

Product Number : 185558  
Brand : Aldrich  
REACH No. : 01-2119480483-35-XXXX  
CAS-No. : 100-44-7

#### 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 :

#### 1.4 Emergency telephone number

Emergency Phone #

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

Acute toxicity, Oral (Category 4), H302  
Acute toxicity, Inhalation (Category 3), H331  
Skin irritation (Category 2), H315  
Serious eye damage (Category 1), H318  
Skin sensitisation (Category 1), H317  
Germ cell mutagenicity (Category 1B), H340  
Carcinogenicity (Category 1B), H350  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335  
Specific target organ toxicity - repeated exposure (Category 2), 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 : Danger

Hazard statement(s)

H302 : Harmful if swallowed.  
H315 : Causes skin irritation.  
H317 : May cause an allergic skin reaction.  
H318 : Causes serious eye damage.  
H331 : Toxic if inhaled.  
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)	
P201	Obtain special instructions before use.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P304 + P340 + P311	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
Supplemental Hazard Statements	none
Restricted to professional users.	
Restricted to professional users.	

### 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.  
Lachrymator.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	: α-Chlorotoluene
Formula	: C <sub>7</sub> H <sub>7</sub> Cl
Molecular weight	: 126,58 g/mol
CAS-No.	: 100-44-7
Registration number	: 01-2119480483-35-XXXX

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

Component	Classification	Concentration
<b>Benzyl chloride</b>		
CAS-No. 100-44-7 EC-No. 202-853-6 Index-No. 602-037-00-3		<= 100 %
<b>Methyloxirane</b> Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)		
CAS-No. 75-56-9 EC-No. 200-879-2 Index-No. 603-055-00-4 Registration number 01-2119480483-35-XXXX	Flam. Liq. 1; Acute Tox. 4; Acute Tox. 3; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; Muta. 1B; Carc. 1B; STOT SE 3; H224, H302, H332, H331, H312, H315, H319, H340, H350, H335	>= 1 - < 3 %

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

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## 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. Take victim immediately to hospital. 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

Do NOT induce vomiting. 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

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## 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

No data available

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

Use water spray to cool unopened containers.

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## SECTION 6: Accidental release measures

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

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low 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. Discharge into the environment must be avoided.

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

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

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

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.

Light sensitive. Moisture sensitive.

### 7.3 Specific end use(s)

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

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Components with workplace control parameters**

### 8.2 Exposure controls

#### Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### Personal protective equipment

##### Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Fluorinated rubber

Minimum layer thickness: 0,7 mm

Break through time: 480 min

Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,4 mm

Break through time: 30 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., 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 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).

### Control of environmental exposure

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

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid Colour: colourless
b) Odour	pungent
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	Melting point/range: -43 °C - lit.
f) Initial boiling point and boiling range	177 - 181 °C - lit.
g) Flash point	67 °C
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	Upper explosion limit: 14 %(V) Lower explosion limit: 1,1 %(V)
k) Vapour pressure	1,60 hPa at 25 °C
l) Vapour density	4,37 - (Air = 1.0)
m) Relative density	1,1 g/cm <sup>3</sup> at 25 °C
n) Water solubility	0,46 g/l at 30 °C - Decomposes in contact with water.
o) Partition coefficient: n-octanol/water	log Pow: 2,3
p) Auto-ignition temperature	585 °C at 1.030 hPa
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

Surface tension	37,8 mN/m at 20 °C
Relative vapour density	4,37 - (Air = 1.0)

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## 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):

Methyloxirane ( $\leq 1\%$ )

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Heat, flames and sparks.

### 10.5 Incompatible materials

Contact with common metals (except nickel and lead) or moisture produces a Friedel-Crafts, condensation-type reaction with the liberation of heat and formation of toxic and corrosive hydrogen chloride. Hydrolyzes very slowly to form hydrogen chloride and benzyl alcohol. This product is not sensitive to physical impact. When stabilized with propylene oxide, the possibility of a Friedel-Crafts type reaction is minimized.

Depletion of the stabilizer increases the possibility of condensation reactions, Oxidizing agents, Iron and iron salts., Brass, Aluminum

### 10.6 Hazardous decomposition products

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

Other decomposition products - No data available

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - male and female - 560 mg/kg

(OECD Test Guideline 401)

#### Skin corrosion/irritation

Skin - Rabbit

Result: Irritating to skin. - 4 h

(OECD Test Guideline 404)

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitisation

- Mouse

Result: May cause sensitisation by skin contact.

(OECD Test Guideline 429)

#### Germ cell mutagenicity

S. typhimurium

Result: This material has shown a positive Ames test, an in vitro test that indicates a possible potential to produce a carcinogenic effect.

Mutagenicity (micronucleus test)

Mouse

Result: negative

#### Carcinogenicity

This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

Possible human carcinogen

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

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Methyloxirane)

#### **Reproductive toxicity**

No data available

#### **Specific target organ toxicity - single exposure**

No data available

#### **Specific target organ toxicity - repeated exposure**

No data available

#### **Aspiration hazard**

No data available

#### **Additional Information**

RTECS: XS8925000

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Toxicity to fish LC50 - Danio rerio (zebra fish) - 4 mg/l - 96 h  
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates Immobilization EC50 - Daphnia magna (Water flea) - 6,1 mg/l - 48 h  
(OECD Test Guideline 202)

Toxicity to algae Growth inhibition EC50 - Pseudokirchneriella subcapitata (algae) - 19,3 mg/l - 72 h  
(OECD Test Guideline 201)

### **12.2 Persistence and degradability**

Biodegradability aerobic - Exposure time 28 d  
Result: 71 % - Readily biodegradable  
(OECD Test Guideline 301C)

### **12.3 Bioaccumulative potential**

No data available

### **12.4 Mobility in soil**

No data available

### **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**

Toxic to aquatic life.

No data available

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## **SECTION 13: Disposal considerations**

### **13.1 Waste treatment methods**

#### **Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**  
Dispose of as unused product.

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**SECTION 14: Transport information**

<b>14.1 UN number</b>			
ADR/RID: 1738	IMDG: 1738	IATA: 1738	
<b>14.2 UN proper shipping name</b>			
ADR/RID: BENZYL CHLORIDE			
IMDG: BENZYL CHLORIDE			
IATA: Benzyl chloride			
<b>14.3 Transport hazard class(es)</b>			
ADR/RID: 6.1 (8)	IMDG: 6.1 (8)	IATA: 6.1 (8)	
<b>14.4 Packaging group</b>			
ADR/RID: II	IMDG: II	IATA: II	
<b>14.5 Environmental hazards</b>			
ADR/RID: no	IMDG Marine pollutant: no	IATA: no	
<b>14.6 Special precautions for user</b>			
No data available			

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**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.

**Authorisations and/or restrictions on use**

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	: Methyloxirane Benzyl chloride
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	: Methyloxirane

- 15.2 Chemical safety assessment**  
For this product a chemical safety assessment was not carried out

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**SECTION 16: Other information**

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

H224	Extremely flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
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.



**Further information**

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