1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Benzyl alcohol
Product Number : 402834
Brand : Sigma-Aldrich
Supplier : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO  63103
USA
Telephone : +1 800-325-5832
Fax : +1 800-325-5052
Emergency Phone # (For both supplier and manufacturer) : (314) 776-6555
Preparation Information : Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Target Organ Effect, Harmful by ingestion., Harmful by skin absorption., Irritant

Target Organs
Central nervous system

GHS Classification
Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 4)
Acute toxicity, Dermal (Category 4)
Skin irritation (Category 2)
Acute aquatic toxicity (Category 2)

GHS Label elements, including precautionary statements

Pictogram

Signal word Warning

Hazard statement(s)
H302 + H312 Harmful if swallowed or in contact with skin
H315 Causes skin irritation.
H332 Harmful if inhaled.
H401 Toxic to aquatic life.

Precautionary statement(s)
P280 Wear protective gloves/ protective clothing.

HMIS Classification
Health hazard: 2
Chronic Health Hazard: *
Flammability: 1
Physical hazards: 0
NFPA Rating
- Health hazard: 2
- Fire: 1
- Reactivity Hazard: 0

Potential Health Effects
- Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
- Skin: Harmful if absorbed through skin. Causes skin irritation.
- Eyes: Causes eye irritation.
- Ingestion: Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

- Synonyms: Benzenemethanol
- Formula: C7H8O
- Molecular Weight: 108.14 g/mol

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzy alcohol</td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>100-51-6</td>
</tr>
<tr>
<td>EC-No.</td>
<td>202-859-9</td>
</tr>
<tr>
<td>Index-No.</td>
<td>603-057-00-5</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

- General advice
  Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

- 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. Consult a physician.

- In case of eye contact
  Flush eyes with water as a precaution.

- If swallowed
  Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

- Conditions of flammability
  Not flammable or combustible.

- Suitable extinguishing media
  Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

- Special protective equipment for firefighters
  Wear self contained breathing apparatus for fire fighting if necessary.

- Hazardous combustion products
  Hazardous decomposition products formed under fire conditions. - Carbon oxides

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions
  Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

- 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
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place.
Handle and store under inert gas. hygroscopic

8. EXPOSURE CONTROLS/PERSOAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-6</td>
<td>TWA</td>
<td>10 ppm</td>
<td>USA. Workplace Environmental Exposure Levels (WEEL)</td>
</tr>
</tbody>
</table>

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. 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.
Full contact
Material: butyl-rubber
Minimum layer thickness: 0.3 mm
Break through time: 480 min
Material tested:Butoject® (KCL 897 / Aldrich Z677647, 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.

Eye protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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
Form liquid, clear
Colour colourless

Safety data
pH no data available
Melting point/freezing point
Melting point/range: -16 - -13 °C (3 - 9 °F)
Boiling point 203 - 205 °C (397 - 401 °F)
Flash point 96 °C (205 °F) - closed cup
Ignition temperature 436 °C (817 °F)
Auto-ignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Vapour pressure 5.00 hPa (3.75 mmHg) at 77 °C (171 °F)
17.7 hPa (13.3 mmHg) at 100 °C (212 °F)
0.125 hPa (0.094 mmHg) at 25 °C (77 °F)
Density 1.045 g/mL at 25 °C (77 °F)
Water solubility 33 g/l at 20 °C (68 °F)
Partition coefficient: n-octanol/water log Pow: 1.1
Relative vapour density 3.73
Odour no data available
Odour Threshold no data available
Evaporation rate no data available

10. STABILITY AND REACTIVITY

Chemical stability
hygroscopic Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
A mixture of benzyl alcohol and 58% sulfuric acid decomposed violently when heated to 180°C. Benzyl alcohol containing 1.4% hydrogen bromide and 1.1% of an iron(II) salt polymerized exothermally when heated above 100°C.

Materials to avoid
Strong oxidizing agents

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides
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Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION
Acute toxicity

**Oral LD50**
LD50 Oral - rat - 1,230 mg/kg

**Inhalation LC50**
no data available

**Dermal LD50**
LD50 Dermal - rabbit - 2,000 mg/kg

**Other information on acute toxicity**
no data available

**Skin corrosion/irritation**
Skin - rabbit - Irritating to skin. - 24 h

**Serious eye damage/eye irritation**
no data available

**Respiratory or skin sensitisation**
no data available

**Germ cell mutagenicity**
no data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

no data available

**Teratogenicity**

no data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**
no data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**
no data available

**Aspiration hazard**
no data available

**Potential health effects**

- **Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.
- **Ingestion** Harmful if swallowed.
- **Skin** Harmful if absorbed through skin. Causes skin irritation.
- **Eyes** Causes eye irritation.

**Signs and Symptoms of Exposure**
stupor, narcosis

**Synergistic effects**
12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish                LC50 - Lepomis macrochirus (Bluegill) - 10 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 55 mg/l - 24 h

Persistence and degradability

Biodegradability
Biotic/Aerobic
Result: 92 - 96 % - Readily biodegradable.

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic life.

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.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 3334    Class: 9
Proper shipping name: Aviation regulated liquid, n.o.s. (Benzyl alcohol)
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

Not dangerous goods

IATA

UN number: 3334    Class: 9    Packing group: III
Proper shipping name: Aviation regulated liquid, n.o.s. (Benzyl alcohol)

15. REGULATORY INFORMATION

OSHA Hazards

Target Organ Effect, Harmful by ingestion., Harmful by skin absorption., Irritant

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
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

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Pennsylvania Right To Know Components

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New Jersey Right To Know Components

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California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information
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