



BENZYL ALCOHOL (ALPHA-13C, 99%)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 01/02/2011

Revision date: 14/07/2020

Supersedes: 31/08/2016

Version: 3.1

CLM-1583

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

1.1. Product identifier

Product form	: Substance
Substance name	: BENZYL ALCOHOL (ALPHA-13C, 99%)
EC Index-No.	: 603-057-00-5 (Unlabeled)
EC-No.	: 202-859-9 (Unlabeled)
CAS-No.	: 54522-91-7
REACH registration No	: 01-211949263-38
Product code	: CLM-1583
Formula	: C6H5*CH2OH
Synonyms	: Benzenemethanol

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

1.2.1. Relevant identified uses

Main use category	: Professional use
Industrial/Professional use spec	: For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810
USA

USA: 1-800-322-1174 Int: 1-978-749-8000

cilsales@isotope.com www.isotope.com

Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours)

International: 1-703-741-5970 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute Tox. 4 (Oral)	H302
Acute Tox. 4 (Inhalation:dust,mist)	H332
Eye Irrit. 2	H319

Full text of hazard classes and H-statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Xn; R20/22

Xi; R36

N; R51

Full text of R-phrases: see section 16

GHS-US classification

Acute Tox. 4 (Oral)	H302
Acute Tox. 4 (Inhalation)	H332
Eye Irrit. 2A	H319
Aquatic Acute 2	H401

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Central Nervous System.

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2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H302+H332 - Harmful if swallowed or if inhaled
H319 - Causes serious eye irritation

Precautionary statements (CLP) :

P261 - Avoid breathing mist, spray.
P264 - Wash both hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P301+P312 - IF SWALLOWED: Call a doctor, a POISON CENTER if you feel unwell.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H302+H332 - Harmful if swallowed or if inhaled
H319 - Causes serious eye irritation
H401 - Toxic to aquatic life

Precautionary statements (GHS-US) :

P261 - Avoid breathing mist, spray.
P264 - Wash Both hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective clothing, protective gloves.
P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a poison center or doctor if you feel unwell
P330 - Rinse mouth.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P501 - Dispose of contents/container to Comply with applicable regulations

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Directive 67/548/EEC
BENZYL ALCOHOL (ALPHA-13C, 99%)	(CAS-No.) 54522-91-7 (EC-No.) 202-859-9 (Unlabeled) (EC Index-No.) 603-057-00-5 (Unlabeled) (REACH-no) 01-211949263-38	100	Xn; R20/22 Xi; R36 N; R51

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
BENZYL ALCOHOL (ALPHA-13C, 99%)	(CAS-No.) 54522-91-7 (EC-No.) 202-859-9 (Unlabeled) (EC Index-No.) 603-057-00-5 (Unlabeled) (REACH-no) 01-211949263-38	100	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2, H319

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

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Name	Product identifier	%	GHS-US classification
BENZYL ALCOHOL (ALPHA-13C, 99%) (Main constituent)	(CAS-No.) 54522-91-7	100	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2A, H319 Aquatic Acute 2, H401

Full text of H-phrases: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Move out of dangerous area. Consult a physician and show this safety data sheet.
First-aid measures after inhalation	: If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
First-aid measures after skin contact	: Wash with soap and plenty of water. Consult a physician.
First-aid measures after eye contact	: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
First-aid measures after ingestion	: 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

Symptoms/effects after inhalation	: Harmful if inhaled.
Symptoms/effects after skin contact	: May be harmful in contact with skin.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: Harmful if swallowed.

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

No additional information available

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 additional information available

5.3. Advice for firefighters

Firefighting instructions	: Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent entry to sewers and public waters. Do not allow to enter drains or water courses. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Clean up any spills as soon as possible, using an absorbent material to collect it. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal.
Methods for cleaning up	: This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Keep container tightly closed in a cool, dry and well-ventilated place.
- Storage conditions : Store at room temperature away from light and moisture.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

BENZYL ALCOHOL (ALPHA-13C, 99%) (54522-91-7)

USA OSHA	Remark (OSHA)	Benzyl alcohol CAS No. 100-51-6 TWA 10 ppm USA. Workplace Environmental Exposure Levels (WEEL)
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8.2. Exposure controls

- Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
- Personal protective equipment : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.



- Materials for protective clothing : Wear suitable protective clothing and gloves.
- Hand protection : Wear suitable protective clothing and gloves.
- Eye protection : Wear safety glasses with side shields (or goggles) and a face shield.
- Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Respiratory protection : When appropriate, use NIOSH/CEN approved respirator.
- Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Liquid, clear
- Molecular mass : 109.13 g/mol (Labeled)
- Color : Colorless
- Odor : No data available
- Odor threshold : No data available
- pH : No data available
- Relative evaporation rate (butyl acetate=1) : No data available
- Melting point : -16 - -13 °C (3 - 9 °F)
- Freezing point : No data available
- Boiling point : 203 - 205 °C (397 - 401 °F)
- Flash point : 96 °C (205 °F) - closed cup
- Auto-ignition temperature : 436 °C (817 °F)
- Decomposition temperature : No data available
- Flammability (solid, gas) : No data available
- Vapor pressure : 5 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)
- Relative vapor density at 20 °C : 3.73 - (Air = 1.0)
- Relative density : No data available
- Specific gravity / density : 1.045 g/ml at 25 °C (77 °F)

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Solubility	: Water: 33 g/l at 20 °C (68 °F)
Log Pow	: 1.1 Log Pow: 1.05 at 20 °C (68 °F)
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable if stored under recommended conditions.

10.3. Possibility of hazardous reactions

Hygroscopic.

10.4. Conditions to avoid

A mixture of benzyl alcohol and 58% sulfuric acid decomposed violently when heated to 180°C. Benzyl alcohol.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. Inhalation:dust,mist: Harmful if inhaled.

BENZYL ALCOHOL (ALPHA-13C, 99%) (54522-91-7)	
LD50 oral rat	1230 mg/kg Remarks: Behavioral: Somnolence (general depressed activity). Behavioral: Excitement. Behavioral: coma.
LD50 oral	1620 mg/kg Rat - male
ATE CLP (oral)	1230.000 mg/kg body weight
ATE CLP (dermal)	2000.000 mg/kg body weight
ATE CLP (dust, mist)	1.500 mg/l/4h

Skin corrosion/irritation	: Skin – Rabbit - Result: Sever skin irritation - 24 h. (OECD Test Guideline 404)
Serious eye damage/irritation	: Eyes - Rabbit - Result: Eye irritation - 24 h. (OECD Test Guideline 405)
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Central nervous system depression. Liver - Irregularities - Based on Human Evidence. 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.
Symptoms/effects after inhalation	: Harmful if inhaled.
Symptoms/effects after skin contact	: May be harmful in contact with skin.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: Harmful if swallowed.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life.

BENZYL ALCOHOL (ALPHA-13C, 99%) (54522-91-7)

LC50 fish 1	10 g/l <i>Lepomis macrochirus</i> (Bluegill) - 96 h
EC50 Daphnia 1	55 mg/l <i>Daphnia magna</i> (Water flea) - 24 h
LC50 fish 2	460 mg/l <i>Pimephales promelas</i> (fathead minnow) - 96 h
EC50 Daphnia 2	230 mg/l <i>Daphnia magna</i> (Water flea) - 48 h (OECD Test Guideline 202)

12.2. Persistence and degradability

BENZYL ALCOHOL (ALPHA-13C, 99%) (54522-91-7)

Persistence and degradability	Biotic/Aerobic. - Exposure time 28 d.
Biochemical oxygen demand (BOD)	aerobic Biochemical oxygen demand - Exposure time 7 d Result: 92 - 96 % - Readily biodegradable (OECD Test Guideline 301C)
Biodegradation	92 - 96 % - Readily biodegradable

12.3. Bioaccumulative potential

BENZYL ALCOHOL (ALPHA-13C, 99%) (54522-91-7)

Log Pow	1.1 Log Pow: 1.05 at 20 °C (68 °F)
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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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.

Product/Packaging disposal recommendations : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

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

14.1. UN number

UN-No.(DOT) : 3334
DOT NA no. UN3334

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Aviation regulated liquid, n.o.s.
(Benzyl alcohol)

Class (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140

Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



DOT Symbols : A - Material is regulated as a hazardous material only when transported by air, G - Identifies PSN requiring a technical name

DOT Special Provisions (49 CFR 172.102) : A35 - This includes any material which is not covered by any of the other classes but which has an anesthetic, narcotic, noxious or other similar properties such that, in the event of spillage or leakage on an aircraft, extreme annoyance or discomfort could be caused to crew members so as to prevent the correct performance of assigned duties.

DOT Packaging Exceptions (49 CFR 173.xxx) : 155

DOT Packaging Non Bulk (49 CFR 173.xxx) : 204

Marine pollutant : No

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14.3. Additional information

Other information : No supplementary information available.
Special transport precautions : IMDG: Not dangerous goods.

Overland transport

Class (ADR) : 9 - Miscellaneous dangerous substances and articles
Classification code (ADR) : M11
EAC : 2Z

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
MFAG-No : 171

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : No limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : No limit
Civil Aeronautics Law : Miscellaneous dangerous substances & articles

14.4. Environmental hazards

Other information : No supplementary information available.

14.5. Special precautions for user

Special transport precautions : IMDG: Not dangerous goods.

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

BENZYL ALCOHOL (ALPHA-13C, 99%) (54522-91-7)

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313

15.2. International regulations

CANADA

BENZYL ALCOHOL (ALPHA-13C, 99%) (54522-91-7)

Listed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

No additional information available

15.3. US State regulations

BENZYL ALCOHOL (ALPHA-13C, 99%)(54522-91-7)

U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No

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State or local regulations

U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information

: This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

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

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
H302	Harmful if swallowed
H319	Causes serious eye irritation
H332	Harmful if inhaled
R20/22	Harmful by inhalation and if swallowed
R36	Irritating to eyes
R51	Toxic to aquatic organisms
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

NFPA health hazard

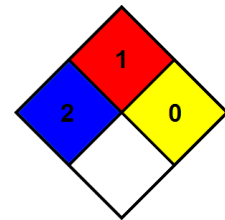
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

: 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health

: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability

: 1 Slight Hazard

Physical

: 0 Minimal Hazard

CIL Substance SDS

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