Glory Global
CO.,LTD

Material Safety Data Sheet

Product name	Benzyl alcohol

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

1.1. Product name	Benzyl alcohol
1.2. CAS-No.	100-51-6
1.3. Relevant identified uses of the substance or mixture and uses advised against	
Identified uses	Laboratory chemicals, Synthesis of substances
1.4. Details of the supplier of the safety data sheet	
Company	Glory Global CO.,LTD
Address	C-208, 10, Nowon-ro 15-gil, Nowon-gu, Seoul, Korea
Emergency Phone	+82 2 6223 0862

2. Hazards identification

2.1. Classification of the substance or mixture GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)	- Acute toxicity, Oral (Category 4), H302 - Acute toxicity, Inhalation (Category 4), H332 - Eye irritation (Category 2A), H319 - For the full text of the H-Statements mentioned in this Section, see Section 16.
2.2. GHS Label elements, including precautionary	
Pictogram	
Signal word	Warning
H302 + H332	Harmful if swallowed or if inhaled.
H319	Causes serious eye irritation.
2.3. Precautionary statement(s)	
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin 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.
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P501	Dispose of contents/ container to an approved waste disposal plant.
2.4. Hazards not otherwise classified (HNOC) or not covered by GHS	May form explosive peroxides.

3. Composition/information on ingredients

3.1. Substances	
Synonyms	Benzenemethanol
Formula	C7H8O
Molecular weight	108.14 g/mol
CAS No	100-51-6
EC-No.	202-859-9

Component	Classification	Concentration	Control parameters
Benzyl alcohol			2 mg/m2
	Acute Tox. 4; Eye Irrit.2A; H302, H332, H319	≤100	2 mg/m3

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

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.
- 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
- Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
- 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

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
- Carbon oxides, Combustible.

5.3. Special protective equipment and percautions for fire fighters
- Wear self-contained breathing apparatus for firefighting if necessary.

5.4. Further information
- No data available

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
- Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.
- For personal protection see section 8.

6.2. Environmental precautions
- Do not let product enter drains.

6.3. 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.

6.4. Reference to other sections
- For disposal see section 13.

7. Handling and storage

7.1. Precautions for safe handling
-Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
- For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities
-Keep container tightly closed in a dry and well-ventilated place.
- Handle and store under inert gas. hygroscopic
- Storage class (TRGS 510): 10: Combustible liquids

7.3. Specific end use(s)
- Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure controls/personal protection

8.1. Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Benzyl alcohol	100-51-6	TWA	10 ppm	USA. Workplace Environmental Exposure Levels (WEEL)

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

a) Eye/face 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).

b) 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.

c) 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.

d) Respiratory protection
- Where risk assessment shows air-purifying respirators are appropriate use a fullface 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).

e) Control of environmental exposure
- Do not let product enter drains.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Form: liquid
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting / freezing point	Melting point/range: −16 – −13 °C (3 – 9 °F)
Initial Boiling Point and Boiling Range	203 – 205 °C 397 – 401 °F
Flash point	101 °C (214 °F) – DIN 51758
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 13 %(V) Lower explosion limit: 1.3 %(V)
Vapour pressure	No data available
Vapour density	No data available
Relative Density	1.045 g/mL at 25 °C (77 °F)
Water solubility	No data available
Partition coefficient n-octanol/water	log Pow: 1.05 at 20 °C (68 °F) – Bioaccumulation is not expected.
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
9.2. Other safety information	Dissociation constant 15.4 at 25 °C (77 °F)

10. Stability and reactivity

10.1. Reactivity	– No data available
10.2. Chemical stability	– hygroscopic Stable under recommended storage conditions. – Test for peroxide formation before distillation or evaporation. Test for peroxide formation or discard after 1 year.
10.3. Possibility of hazardous reactions	– No data available
10.4. 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.
10.5. Incompatible materials	– Strong oxidizing agents
10.6. Hazardous decomposition products	– Hazardous decomposition products formed under fire conditions. : Carbon oxides – Other decomposition products : No data available – In the event of fire: see section 5

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity	LD50 Oral – Rat – male – 1,620 mg/kg Remarks: (ECHA) LD50 Oral – Rat – 1,230 mg/kg Remarks: Behavioral:Somnolence (general depressed activity). Behavioral:Excitement. Behavioral:Coma. LD50 Oral – Rat – male – 1,620 mg/kg LC50 Inhalation – Rat – male and female – 4 h – > 4.178 mg/l (OECD Test Guideline 403) Remarks: (Regulation (EC) No 1272/2008, Annex VI) Dermal: No data available No data available
Skin corrosion/irritation	Skin – Rabbit Result: No skin irritation – 4 h (OECD Test Guideline 404)
Serious eye damage/eye irritation	Eyes – Rabbit Result: irritating (OECD Test Guideline 405) Eyes – Rabbit Result: slight irritation (OECD Test Guideline 405) Remarks: (Regulation (EC) No 1272/2008, Annex VI)
Respiratory or skin sensitisation	Maximisation Test Result: negative (OECD Test Guideline 406)

Germ cell mutagenicity	No data available OECD Test Guideline 474 Rat - male - Bone marrow Result: negative (in analogy to similar products)

11.2. 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.
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 on OSHA's list of regulated carcinogens

11.3. Reproductive toxicity	No data available
11.4. Specific target organ toxicity - single exposure	No data available
11.5. Specific target organ toxicity - repeated exposure	No data available
11.6. Aspiration hazard	No data available
11.7. Additional Information	RTECS: DN3150000 Central nervous system depression To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Liver - Irregularities - Based on Human Evidence

12. Ecological information

12.1. Toxicity

Fish	static test LC50 - Pimephales promelas (fathead minnow) - 460 mg/l - 96 h (US-EPA)
Daphnia and other aquatic invertebrates	Immobilization EC50 - Daphnia magna (Water flea) - 230 mg/l - 48h (OECD Test Guideline 202)
Algae/aquatic plants	static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 700 mg/l - 72 h (OECD Test Guideline 201)

12.2. Persistence and degradability

Biodegradability	aerobic - Exposure time 14 d Result: 92 - 96 % - Readily biodegradable. (OECD Test Guideline 301C) aerobic - Exposure time 21 d Result: 95 - 97 % - Readily biodegradable. (OECD Test Guideline 301A)
Biochemical Oxygen Demand (BOD)	1,550 mg/g Remarks: (Lit.)
Theoretical oxygen demand	2,515 mg/g Remarks: (IUCLID)
Ratio BOD/ThBOD	62 % Remarks: (Lit.)

12.3. Bioaccumulative potential	- No data available
12.4. Mobility in soil	- No data available
12.5. Results of PBT and vPvB assessment	- PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
12.6 Other adverse effects	- No data available

13. Disposal considerations

13.1 Waste treatment methods

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

14.1. DOT (US)	Not dangerous goods
14.2. IMDG	Not dangerous goods
14.3. IATA (Country variations may apply)	UN number: 3334 Class: 9 Packing group: III Proper shipping name: Aviation regulated liquid, n.o.s. (Benzyl alcohol)

15. Regulatory information

15.1. SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

15.2. SARA 313 Components	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.
15.3. SARA 311/312 Hazards	Acute Health Hazard, Chronic Health Hazard
15.4. Massachusetts Right To Know Components	- Benzyl alcohol - CAS-No.: 100-51-6 - Revision Date: 1993-04-24

No components are subject to the Massachusetts Right to Know Act.

15.5. Pennsylvania Right To Know Components	- Benzyl alcohol - CAS-No.: 100-51-6 - Revision Date: 1993-04-24
15.6. New Jersey Right To Know Components	- Benzyl alcohol - CAS-No.: 100-51-6 - Revision Date: 1993-04-24

16. Other information

16.1. Further information	- Always work safely around open hatches on bulk tanks. The low density makes flotation difficult for immersed person.