



SILVER FERN CHEMICAL, INC.

Safety Data Sheet

Benzyl Alcohol

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product Name: Benzyl Alcohol

Synonym(s): Benzenmethanol; Benzoyl Alcohol; Benzenecarbinol; α -Hyoxytoluene; Hydroxytoluene; Phenylcarbinol; Phenylmethanol; Phenylmethyl Alcohol; α -Toluene

REACH Registration Number: No data available at this time.

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

General use: Industrial applications

Uses advised against: None known

1.3 Details of the supplier and of the safety data sheet

Manufacturer/Distributor

Silver Fern Chemical, Inc.
2226 Queen Anne Avenue North
Suite C
Seattle, WA 98109 USA
1-866-282-3384

1.4 Emergency telephone number: INFO-TRAC +1-800-535-5053; Outside USA & Canada +1-352-323-3500

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Product definition: Substance

Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral - Category 4 [H302]

Eye Irritation - Category 2A [H319]

Acute toxicity, Inhalation - Category 4 [H332]

2.2 Label Elements

Hazard Symbol(s):



GHS07

Signal Word:

Warning

Hazard Statement(s):

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

Precautionary Statements:

[Prevention]

P264 - Wash hands and other skin areas exposed to material thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P261 - Avoid breathing dust.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing and eye protection.

[Response]

P301 + P304 + P312 - IF SWALLOWED: Rinse mouth. Call a POISON CENTER or 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.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTER or doctor if you feel unwell.
P337 + P313 - If eye irritation persists: Get medical attention.

[Disposal]

P501 - Dispose of contents in accordance with national and local regulations.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

% by Weight	Ingredient	CAS Number	EC Number	Index Number	GHS Classification
>99	Benzyl Alcohol	100-51-6	202-859-9	603-057-00-5	H302, H319, H332

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

3.2 Mixtures

Not applicable

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: If product mist or vapor causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Loosen tight fitting clothing such as a collar, tie, belt or waistband. If symptoms persist or if the victim feels unwell, seek medical attention.

Eyes: Immediately flush eyes with large amounts of water for 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after the first 2 minutes and continue rinsing. If irritation persists, seek medical attention, preferably from an ophthalmologist.

Skin: Flush skin with large amounts of water while removing contaminated clothing and continue rinsing for at least 15 minutes. Wash exposed skin areas with soap and water. Wash contaminated clothing and shoes thoroughly before reuse. If irritation persists, seek medical attention.

Ingestion: Rinse mouth with water if the victim is conscious. Remove dentures, if any. Give 1 - 2 cupfuls of water or milk to drink if the victim is conscious, alert and able to swallow. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious or convulsing person. Do not leave the victim unattended. Lay the victim on one side with head lower than the waist to prevent aspiration of this material during vomiting. Obtain immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Potential health symptoms and effects

Eyes: Causes severe eye irritation with redness, pain and tearing. Effects may be delayed.

Skin: May cause skin irritation with localized redness and discomfort. May cause a local anesthetic effect. Prolonged and repeated skin contact may cause defatting of the skin and dermatitis. May be harmful if absorbed through the skin. Systemic effects may result following absorption.

Inhalation: Harmful if inhaled. Causes irritation of the upper respiratory tract. May cause headache, cough and shortness of breath, nausea, drowsiness or dizziness.

Ingestion: Causes irritation of the gastrointestinal tract. Symptoms may include nausea, vomiting, abdominal pain and diarrhea. Harmful if swallowed. May affect the central nervous system. May cause headache, somnolence, excitement, dizziness, euphoria, ataxia, convulsions, anaesthetic effects, slowed reaction time, slurred speech, progress to unconsciousness, and coma. Serious poisonings may result in respiratory depression and may be fatal.

Chronic: Persons with preexisting skin disorders and respiratory impairment may be more susceptible to the effects of this substance. Prolonged or repeated exposure to benzyl alcohol may cause allergic contact dermatitis. Prolonged or repeated ingestion may affect the central nervous system with symptoms similar to acute ingestion. It may also affect the liver, kidneys, cardiovascular system, and metabolism (weight loss).

4.3 Indication of any immediate medical attention and special treatment needed

Advice to Doctor and Hospital Personnel

Treat symptomatically and supportively. Administer laxative: Sodium sulfate (1 tablespoon/1/4 l water).

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishable media

Suitable methods of extinction: Use dry chemical, carbon dioxide, alcohol-resistant foam, water spray or water fog.

Unsuitable methods of extinction: Water jets may spread the fire.

5.2 Special hazards arising from the substance or mixture

Combustible liquid at high temperatures. Closed containers may explode due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention.

Explosion hazards: Not considered to be explosion hazard.

5.3 Advice for firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. Water contaminated by this material must be contained from being discharged to any waterway, sewer or drain to prevent environmental contamination.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate non-essential personnel. Wear appropriate protective clothing designated in Section 8. Ventilate the area. Remove all sources of

ignition. No smoking.

6.2 Environmental precautions

Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways.

6.3 Methods and materials for containment and cleaning up

Approach spill from upwind direction. Cover drains and contain spill. Do not flush spill down the drain. Cover with a large quantity of inert absorbent. Do not use combustible material such as sawdust. Collect material and place into an approved container for proper disposal. Observe possible material restrictions (Sections 7.2 and 10.5). Dispose of waste via a licensed waste disposal contractor.

6.4 Reference to other sections

See Section 13 for additional waste treatment information.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling

Wear all appropriate personal protective equipment specified in Section 8. Do not get in eyes or on skin or clothing. No smoking. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator. Wash contaminated clothing and shoes before reuse.

Advice on protection against fire and explosion

May be combustible at high temperatures.

7.2 Conditions for safe storage, including any incompatibilities

Store in dry, cool, well-ventilated areas away from incompatible materials (see Section 10.5), food and drink. Transfer only to approved containers having correct labeling. Hygroscopic! Keep container tightly closed to prevent moisture absorption. Protect container against physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Containers of this material are hazardous when empty since they retain product residues. Use appropriate containment to avoid environmental contamination. Ventilate closed areas. Do not take internally. Keep out of reach of children.

7.3 Specific end uses

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Contains no substances with occupational exposure limits.

8.2 Exposure controls

Engineering measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking, smoking or using the lavatory.

Eye/face protection: Wear safety glasses with unperforated side shields or protective splash goggles during use.

Hand Protection: Wear gloves recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period.

Skin protection: Wear protective clothing. Wear protective boots if the situation requires.

Respiratory protection: Always use an approved respirator when vapor/aerosols are generated. Where risk assessment shows air-purifying respirators are appropriate use a full-faced 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). Follow OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Environmental exposure controls: Do not empty into drains.

PPE must not be considered a long-term solution to exposure control. PPE usage must be accompanied by employer programs to properly select, maintain, clean fit and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.



Safety Glasses



Gloves



Protective Apron

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear, colorless liquid
Odor	Characteristic
Odor Threshold	No data available



Odor Threshold	No data available
Molecular Weight	108.14 g/mol
Chemical Formula	C ₇ H ₈ O
pH	3.5
Freezing/Melting Point	-15.4 °C (-59.7 °F)
Initial Boiling Point	205.3 °C (401.5 °F)
Evaporation Rate	<0.01 (BuOAc = 1)
Flammability (solid, gas)	Not applicable
Flash Point	100.4 °C (212.7 °F)
Autoignition Temperature	436 °C (816.8 °F)
Decomposition Temperature	No data available
Lower Explosive Limit (LEL)	1.3% (v)
Upper Explosive Limit (UEL)	13% (v)
Vapor Pressure	0.07 hPa @ 20 °C
Vapor Density	3.72 (Air = 1)
Relative Density	1.045 g/ml @ 25 °C
Viscosity	5084 mPa*s @20 °C
Solubility in Water	40 g/l
Partition Coefficient: n-octanol/water	log Pow = 1.05 @ 20 °C
Oxidizing Properties	Not applicable
Explosive Properties	Not applicable
Volatiles by Weight @ 21 °C	No data available

9.2 Other data

No data available

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

Forms explosive mixtures with air upon intense heating.

10.2 Chemical stability

This product is stable under recommended storage conditions, handling and use. Hygroscopic liquid - absorbs moisture from the air. Light sensitive.

10.3 Possibility of hazardous reactions

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.

10.4 Conditions to avoid

Temperature extremes, contact with incompatible materials, moisture, exposure to light

10.5 Incompatible materials

Moisture, strong oxidizing agents, sulfuric acid, acids, plastics, moist environments and air, light

10.6 Hazardous decomposition products

Thermal decomposition products include oxides of carbon.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Oral Toxicity

LD₅₀, rat: 1,620 mg/kg

Acute inhalation toxicity

LC₅₀, rat: >5,000 mg/m³

Acute dermal toxicity

LD₅₀, rat: >2,000 mg/kg

Skin irritation/corrosion

May cause skin irritation

Eye irritation/corrosion

May cause serious eye irritation

Sensitization

No data available

Genotoxicity

No data available

Mutagenicity

No data available

Specific organ toxicity - single exposure

No data available

Specific organ toxicity - repeated exposure

No data available



Specific organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Further information

This product contains no substances present at levels greater than or equal to the 0.1% threshold (de minimis) that are identified as a probable, possible, potential or confirmed carcinogens by ACGIH, IARC, NTP or OSHA. No data is available regarding the mutagenicity or teratogenicity of this product, nor is there any available data that indicates it causes adverse developmental or fertility effects.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

Large discharges or spills of this material may be harmful to aquatic life and soil microorganisms.

Acute and prolonged toxicity to fish: LC₅₀ - Pimephales promelas (Fathead minnow), 96 h: 460 mg/l
Acute toxicity to aquatic invertebrates: LC₅₀ - Daphnia magna (Water flea), immobilization, 48 h: 230 mg/l
Acute toxicity to aquatic plants: ErC₅₀ - Pseudokirchneriella subcapitata (green algae), 72 h: 700 mg/l

12.2 Persistence and degradability

This substance is readily biodegradable

12.3 Bioaccumulation potential

The substance is not expected to bioaccumulate.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects**Additional ecological information**

Do not allow material to run into surface waters, wastewater or soil.

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

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Methods of disposal: The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

RCRA P-Series: No listing

RCRA U-Series: No listing

SECTION 14 - TRANSPORT INFORMATION

Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

NOT REGULATED FOR TRANSPORT

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for substance or mixture**U. S. Federal Regulations**

OSHA Hazard Communication Standard: This material is classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

OSHA Process Safety Management Standard: This material is not regulated under OSHA PSM Standard 29 CFR 1910.119.

EPA Risk Management Planning Standard: This material is not regulated under EPA RMP Standard (RMP) 40 CFR Part 68.

EPA Federal Insecticide, Fungicide and Rodenticide Act: This product is not a registered Pesticide under the FIFRA, 40 CFR Part 150.

Toxic Substance Control Act (TSCA) Inventory: This substance is listed on the TSCA Inventory. It is not subject to TSCA 12(b) Export Notification.

Drug Enforcement Administration (DEA) List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.4(f)(2) and Chemical Code Number
Not listed

Drug Enforcement Administration (DEA) Lists 1 & 2, Exempt Chemical Mixtures (21 CFR 1310.12(c)) and Code Number
Not listed

Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) Chemicals

Not listed

SARA Section 311/312 Hazard Categories: Acute Health Hazard

SARA 302/304 Extremely Hazardous Substance: None of the chemicals in this product are subject to reporting requirements of these sections of Title III of SARA.

SARA 302/304 Emergency Planning & Notification: None of the chemicals in this product are subject to reporting requirements of these sections of Title III of SARA.

Comprehensive Response Compensation and Liability Act (CERCLA): This product contains no CERCLA reportable substance(s).

Clean Air Act (CAA)

This product does not contain any chemicals listed as Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).

This product does not contain any Class 1 Ozone depletors.

This product does not contain any Class 2 Ozone depletors.

Clean Water Act (CWA)

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

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

Other U.S. State Inventories

Benzyl Alcohol (CAS #100-51-6) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: PA.

Canada

WHMIS Hazard Symbol and Classification



B3 - Flammable liquid with flash points greater than 38 °C (100 °F) but inferior to 93 °C (199.4 °F)



D2B - Toxic material causing other toxic effects - eye irritation in animals

Canadian National Pollutant Release Inventory (NPRI): None of the substances in this product are listed on the NPRI.

European Economic Community

WGK, Germany (Water danger/protection): 1 (low hazard to waters)

Global Chemical Inventory Lists

Table with 3 columns: Country, Inventory Name, Inventory Listing*. Rows include Canada (Domestic and Non-Domestic), Europe, United States, Australia, New Zealand, China, Japan, Korea, and Philippines.

*Yes - All components of this product are in compliance with the inventory requirements administered by the governing country.

No - One or more components of this product are not on the inventory or are exempt from listing.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 - OTHER INFORMATION

Hazardous Material Information System (HMIS)

HMIS hazard rating legend table showing Health (2), Flammability (1), Physical Hazard (0), and Personal Protection (C).

C = safety glasses, gloves and an apron

HMIS Hazard Rating Legend

0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic Health Hazard

NFPA Hazard Rating Legend

0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme

National Fire Protection Association (NFPA)

Flammability



Special

Abbreviation Key

- ACGIH: American Conference of Governmental Industrial Hygienists
ADR: Accord Dangereux Routier (European regulations concerning the international transport of dangerous goods by road)
CAS: Chemical Abstract Services



CFR	Code of Federal Regulations
DOT	Department of Transportation
EMS Guide	Emergency Response Procedures for Ships Carrying Dangerous Goods
EPA	Environmental Protection Agency
ERG	Emergency Response Guide Book
FDA	Food and Drug Administration
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
HCS	Hazard Communication Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IDLH	Immediately Dangerous to Life and Health
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
mppcf	Millions of Particles Per Cubic Foot
NA	North America
NAERG	North American Emergency Response Guide Book
NIOSH	National Institute for Occupational Safety
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PBT	Persistent, Bioaccumulating and Toxic
PEL	Permissible exposure limit
PMCC	Pensky-Martens Closed Cup
ppm	Parts Per Million
RCRA	Resource Conservation and Recovery Act
RID	Dangerous Goods by Rail
RQ	Reportable Quantity
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
TWA	Time-weighted Average
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulating
WHMIS	Workplace Hazardous Materials Information System

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