Material Safety Data Sheet
Benzyl alcohol, 99%

ACC# 95485

Section 1 - Chemical Product and Company Identification

MSDS Name: Benzyl alcohol, 99%
Catalog Numbers: AC148390010, AC148390025, AC148390050, AC148395000, AC610241000, AC9713168, XXAC14839200
Synonyms: Phenylmethanol; Benzene carbinol; Benzenemethanol; Benzoyl alcohol.
Company Identification:

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
100-51-6	Benzyl alcohol	99	202-859-9

Hazard Symbols: XN
Risk Phrases: 20/22

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. **Caution!** Hygroscopic (absorbs moisture from the air). May be harmful if swallowed. May be harmful if absorbed through the skin. Causes skin irritation. Causes severe eye irritation. May cause respiratory and digestive tract irritation.
Target Organs: None.

Potential Health Effects

Eye: Causes severe eye irritation. Causes redness and pain.
Skin: Causes skin irritation. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis. Causes redness and pain. May be harmful if absorbed through the skin. Contact with the skin may cause a local anesthetic effect.
Ingestion: May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. May be harmful if swallowed.
Inhalation: Vapors cause irritation of the respiratory system.

Chronic: Prolonged or repeated skin contact may cause dermatitis.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
Ingestion: Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.
Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician: Blood benzyl alcohol and benzoic acid and urine hippuric acid may be helpful in diagnosis.
Antidote: None reported.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Will burn if involved in a fire. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.
Extinguishing Media: Use dry chemical, carbon dioxide, or alcohol-resistant foam. Water spray may cause frothing.
Flash Point: 213e deg F (100.56 deg C)
Autoignition Temperature: 435 deg C (815.00 deg F)
Explosion Limits, Lower:1.3
Upper: 13.0
NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Wash hands before eating. Use with adequate ventilation. Avoid breathing dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale.
Storage: Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Benzyl alcohol	none listed	none listed	none listed

OSHA Vacated PELs: Benzyl alcohol: No OSHA Vacated PELs are listed for this chemical.
Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: clear, colorless
Odor: Faint aromatic odor
pH: Not available.
Vapor Pressure: 0.13 mbar @ 20 C
Vapor Density: 3.72
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: 205 deg C
Freezing/Melting Point:-15 deg C
Decomposition Temperature: Not available.
Solubility: Moderately Soluble.
Specific Gravity/Density:1.045
Molecular Formula:C7H8O
Molecular Weight:108.0554

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, temperatures above 100°C, exposure to moist air or water.
Incompatibilities with Other Materials: Moisture, strong oxidizing agents, sulfuric acid, acids, hydrogen bromide gas + iron at >100C(exothermic polymerization), plastics.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, acrid smoke and fumes.
Hazardous Polymerization: May occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 100-51-6: DN3150000
LD50/LC50:
CAS# 100-51-6:
Draize test, rabbit, skin: 100 mg/24H Moderate;
Inhalation, mouse: LC50 = >500 mg/m3;
Inhalation, rat: LC50 = >500 mg/m3;
Oral, mouse: LD50 = 1360 mg/kg;
Oral, mouse: LD50 = 1360 mg/kg;
Oral, rabbit: LD50 = 1040 mg/kg;
Oral, rabbit: LD50 = 1040 mg/kg;
Oral, rat: LD50 = 1660 mg/kg;
Oral, rat: LD50 = 1230 mg/kg;
Skin, rabbit: LD50 = 2000 mg/kg;
Skin, rat: LD50 = 100 pph/90M;
Carcinogenicity:
CAS# 100-51-6: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Neurotoxicity: No information available.
Mutagenicity: DNA repair(Bacteria - Bacillus subtilis) = 21 mg/discMutation in microorganisms(Mouse Lymphocyte)= 250 mg/L
Other Studies: Standard Draize test(skin, Human)= 16 mg/48H; MildStandard D raize test(skin,rabbit) = 100 mg/24H; Moderate

Section 12 - Ecological Information

Ecotoxicity: Fish: Fathead Minnow: LC50 = 46.41 mg/L; 96 Hr.; Static, Soft Water Fathead Minnow: LC50 = 59.30 mg/L; 96 Hr.; Static, Hard Water Bluegill/Sunfish: LC50 = 25.05 mg/L; 96 Hr.; Static, Hard Water Goldfish: LC50 = 64.74 mg/L; 96 Hr.; Static, Hard Water flea Daphnia: EC50 = 400.0 mg/L; 48 Hr.; Unspecified flea Daphnia: EC50 = 23.0 mg/L; 48 Hr.; Unspecified ria: Phytobacterium phosphoreum: EC50 = 71.4 mg/L; 5,15,30 minutes; Microtox test, 15 degrees C log Pow:1.1 Fish toxicity: LC50 (48-96hr) fathead minnow 770-460 mg/l, static bioassay at 18-22øC [Verschueren, K. Handbook of Environmental Data of Organic Chemicals 2nd ed., 1983, Van Nostrand Reinhold, New York] Invertebrate toxicity: EC50 (5,15,30 min) Photobacterium phosphoreum 71.4 mg/l Microtox test [Kaiser, K.L.E; et al. Water Pollut. Res. J. Canada 1991, 26 (3),361-431] EC50 (48 hr) Daphnia magna 400 mg/l, EC100 (48 hr) Daphnia magna 500 mg/l
Environmental: If released to soil, benzyl alcohol is expected to display high mobility and readily leach through soil. Volatilization from dry soil to the atmosphere may be an important fate process; however, it is not expected to be an important process in moist soils. If released to water, benzyl alcohol is expected to undergo microbial degradation under aerobic and anaerobic conditions.
Physical: In the atmosphere, benzyl alcohol is expected to exist almost entirely in the vapor phase. The estimated half-life for the vapor phase reaction of benzyl alcohol with photochemically produced hydroxyl radicals is 2 days.
Other: Benzyl alcohol's volatilization to the atmosphere, hydrolysis, direct photolytic degradation, chemical oxidation, bioconcentration in fish and aquatic organisms, nor adsorption to sediment and suspended organic matter are not expected to be significant processes in environmental waters.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	No information available.				No information available.
Hazard Class:					
UN Number:					
Packing Group:					

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 100-51-6 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA

CERCLA Hazardous Substances and corresponding RQs
None of the chemicals in this material have an RQ.
SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.
SARA Codes
CAS # 100-51-6: acute.
Section 313
No chemicals are reportable under Section 313.
Clean Air Act:
This material does not contain any hazardous air pollutants. This material does not contain any Class 1

Ozone depletors. This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
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.
OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.
STATE
CAS# 100-51-6 can be found on the following state right to know lists: Pennsylvania, Minnesota, Massachusetts.
California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives
Hazard Symbols:
XN
Risk Phrases:
R 20/22 Harmful by inhalation and if swallowed.

Safety Phrases:
S 26 In case of contact with eyes, rinse immediately
with plenty of water and seek medical advice.

WGK (Water Danger/Protection)
CAS# 100-51-6: 1
Canada - DSL/NDSL
CAS# 100-51-6 is listed on Canada's DSL List.
Canada - WHMIS
This product has a WHMIS classification of D2B.
Canadian Ingredient Disclosure List
CAS# 100-51-6 is listed on the Canadian Ingredient Disclosure List.
Exposure Limits
CAS# 100-51-6: OEL-RUSSIA:STEL 5 mg/m3;Skin

Section 16 - Additional Information

MSDS Creation Date: 4/30/1999
Revision #3 Date: 10/10/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.