MATERIAL SAFETY DATA SHEET
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I. PRODUCT INFORMATION

CHEMICAL NAME:	**BENZYL ALCOHOL**
SYNONYM:	Alpha hydroxy toluene, Phenyl methanol
FAMILY:	Aromatic alcohol
MOLECULAR FORMULA:	$C_6H_5CH_2OH$ (C_7H_8O)
MOLECULAR WEIGHT:	108.1
CAS REG #:	100-51-6

II. SUMMARY OF HAZARDS

WARNING!

CAUSES EYE IRRITATION - IS A SEVERE EYE IRRITANT
EXPOSURE TO VAPORS MAY CAUSE HEADACHE, DIZZINESS, AND NAUSEA
OVER-EXPOSURE MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION
MAY CAUSE SKIN IRRITATION
HARMFUL IF SWALLOWED

III. PHYSICAL PROPERTIES

APPEARANCE / ODOR:	Colorless liquid with an aromatic odor.		
WEIGHT PER GALLON:	8.7#	**BOILING POINT:**	401°F (205°C)
VAPOR PRESSURE:	< 0.1 mm Hg @ 20°C (68°F)	**MELTING POINT:**	+4.5°F (-15.3°C)
SPECIFIC GRAVITY:	1.045 @ 77°F (H20 = 1)	**% VOLATILE:**	100
SOLUBILITY IN WATER:	Moderate (~4-5%)	**VAPOR DENSITY:**	3.7 (Air = 1)
EVAPORATION RATE:	<0.01 (Butyl acetate = 1)		

IV. FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT (TCC):	210°F (98.9°C)	**FLAMMABLE LIMITS:**	Not determined
AUTOIGNITION TEMP:	817°F (436°C)	**DECOMPOSITION TEMP:**	Not determined

FIRE and EXPLOSION HAZARDS:	Decomposition under fire conditions will generate carbon monoxide and may generate other toxic vapors.
FIRE FIGHTING INFORMATION:	Use CO2, foam, or dry chemical to extinguish fire. Water can be used to cool a fire, but for extinguishment, foam or dry chemical are preferred. Avoid spreading liquid and fire by water flooding. Wear self-contained, positive pressure breathing apparatus and full firefighting protective clothing. Use water to keep containers cool.

V. HAZARD RATINGS FOR BENZYL ALCOHOL

NFPA	HEALTH	2	**HMIS**	HEALTH	2
HAZARD	FLAMMABILITY	1	**RATINGS**	FLAMMABILITY	1
RATING	REACTIVITY	0	**(NPCA & NAPIM)**	REACTIVITY	0

VI. HEALTH HAZARD INFORMATION

LD50 (ORAL RAT): 1230 mg / kg

THRESHOLD LIMIT VALUE (TLV): TLV has not been established by the ACGIH.

PERSONNEL EXPOSURE LIMIT (PEL): PEL has not been established by OSHA.

CARCINOGEN (IARC / NTP / 29CFR): No

NOTE: Health studies have shown that exposures to chemicals pose potential health risks which may vary from person to person. Exposures to liquids, vapors, mists, or fumes should always be minimized.

ACUTE HEALTH HAZARDS:

Inhalation:	Inhalation of concentrated vapor may irritate the nose and throat. Overexposure to vapors causes headache, vertigo, nausea, vomiting, and diarrhea. Over-exposure can cause central nervous system depression.
Eye Contact:	Causes eye irritation. Is a severe eye irritant.
Skin Contact:	May cause skin irritation.
Ingestion:	Harmful if swallowed. See LD50 data.

CHRONIC HEALTH HAZARDS:
Prolonged contact may cause defatting of the skin.
No other chronic health hazard information is available.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known

EMERGENCY FIRST AID:

Inhalation:	If overcome by exposure, remove to fresh air immediately. Give oxygen or artificial respiration as needed. Get immediate medical attention.
Eye Contact:	In case of eye contact, flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.
Skin Contact:	In case of skin contact, flush skin with plenty of water. Remove contaminated clothing. Call a physician if irritation develops. Wash clothing before reuse.
Ingestion:	If swallowed, call a physician immediately. Induce vomiting only on advice of medical personnel. Never give anything by mouth to an unconscious person.

VII. PROTECTIVE EQUIPMENT AND EXPOSURE CONTROL METHODS

Use with adequate local exhaust ventilation. In confined or enclosed spaces, use NIOSH or MSHA approved respiratory protection. Use chemical resistant apron, gloves, and other impervious clothing to avoid skin contact.

Use splash goggles and face shield when eye contact may occur. Provide safety shower, equipped with an eye wash fountain in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, or smoking, or using toilet facilities. Promptly remove contaminated clothing and wash thoroughly before reuse.

VIII. REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

INCOMPATIBLE MATERIALS: Alcohols can react violently in contact with strong oxidizing agents, isocyanates, acetaldehyde, $LiAlH_4$ (lithium aluminum hydride), aluminum alkyl compounds and strong mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Incomplete combustion will produce carbon monoxide and other potentially toxic and/or poisonous vapors.

IX. SPILL OR LEAK PROCEDURES

Remove sources of ignition, stop release, and provide adequate ventilation. Prevent flow to sewer and public waters. Recover free product, if possible. Cover spill with inert, non-combustible absorbent material and remove to disposal container. Report spill as per regulatory requirements. Leaking drum should be emptied or placed into an oversized (recovery) drum.

X. WASTE DISPOSAL

Disposal must be made in accordance with applicable governmental regulations.
Do not contaminate any streams, lakes, or ponds.

XI. ADDITIONAL PRECAUTIONS

Partially filled drums should be blanketed with nitrogen to avoid product being slowly oxidized to benzaldehyde.

Store as a NFPA Class III B liquid. Keep fire and sparks away from drums. Since empty containers retain product residue, do not cut, drill, grind, or weld on or near the container until it is thoroughly cleaned.

Isolate, vent, drain, wash and purge systems or equipment before maintenance or repair. Remove all ignition sources. Check atmosphere for explosive mixtures as well as oxygen deficiencies. Use adequate personal protective equipment. Comply with regulations governing confined space entry.

XII. OSHA / SARA TITLE III / TSCA / DSL INFORMATION

We have evaluated Benzyl Alcohol using the criteria in OSHA's Hazard Communication Rule (29 CFR 1910.1200). Benzyl Alcohol is considered hazardous under the OSHA Standard.

Benzyl Alcohol is not listed as an Extremely Hazardous Substance under Section 302 of SARA Title III.

As an OSHA hazardous substance, Benzyl Alcohol is subject to the reporting requirements of Sections 311 or 312 of SARA Title III.

Benzyl Alcohol does not contain ingredients (at a level of 1% or more) on the List of Toxic Chemicals in Section 313 of SARA Title III.

Benzyl Alcohol is included in the current TSCA Inventory List. It is also included in the Canadian Domestic Substance List (DSL) as benzene methanol.

XIII. CALIFORNIA PROPOSITION 65 INFORMATION

Benzyl Alcohol contains trace amounts of toluene. Toluene is *known* to the state of California to cause reproductive harm.

XIV. TRANSPORTATION INFORMATION

Benzyl Alcohol is NOT regulated as a hazardous material under the regulations of either the United States Department of Transportation or the IMDG.

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