



5515 North Service Rd. #306
Burlington, Ontario L7L 6G4

Phone: 905-337-7411
Fax: 905-337-1686

megaloid.ca



1. IDENTIFICATION

Name: Benzyl Alcohol

Synonyms: benzoyl alcohol, phenylmethyl alcohol, alpha-hydroxytoluene, & others

Product Uses: textile dyeing, solvent, chemical synthesis, flavourings, perfumes, cosmetics, etc.

Supplier: Megaloid Laboratories Limited
Identifier: 5515 North Service Road # 306
Burlington, ON L7L 6G4

EMERGENCY INFORMATION: Call CHEMTREC - (800) 424-9300
(CCN# 693764)

2. HAZARD IDENTIFICATION

GHS Class <i>(category)</i>	skin irritant <i>(2)</i>	eye irritant <i>(2A)</i>	acute inhalation <i>(4)</i>	STOT <i>(3)</i>	acute oral <i>(4)</i>
Signal Word	WARNING				
Hazard Statements	Causes skin irritation (H315)	Causes serious eye irritation (H319)	Harmful if inhaled (H332)	May cause respiratory tract irritation (H335)	Harmful if swallowed (H302)

Hazardous Pictograms



GHS Precautionary Statements for Labelling

Prevention:	
P260	Do not breathe mist, vapours.
P262	Do not get in eyes or on skin.

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P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273+P391	Avoid release to the environment. Collect spillage.
P280	Wear eye protection/face protection.
Response:	
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.
P313+P333	If skin irritation or rash occurs, get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice or attention.
Storage:	
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
Disposal:	
P501	Dispose of contents and container in accordance with local, regional, national and international regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name:	CAS No.	Weight %	Other Identifiers
<i>Benzyl alcohol</i>	100-51-6	100	EC# 202-859-9

4. FIRST-AID MEASURES

Inhalation

Remove from contaminated area promptly. CAUTION: Rescuer must not endanger himself! If breathing stops, administer artificial respiration and seek medical aid promptly.

Skin Contact

Wash with plenty of water. Remove contaminated clothing and do not reuse until thoroughly laundered.

Eye Contact

Wash eyes with plenty of water, holding eyelids open. Seek medical assistance if there is any irritation.

Ingestion

Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, lower victim's head below hips to prevent inhalation of vomited material. Seek medical help promptly.

Most important symptoms and effects, both acute and delayed

Causes skin irritation
Causes serious eye irritation
Harmful if inhaled
May cause respiratory tract irritation
Harmful if swallowed

Notes to physician

Treat symptomatically

Inadvertent inhalation of vomited material may seriously damage the lungs. The danger of this is greater than the risk of poisoning through absorption of this relatively low-toxicity substance. The stomach should only be emptied under medical supervision, and after the installation of an airway to protect the lungs.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media

None known

Specific Hazards Arising from the Product

In a fire or if heated, a pressure increase will occur and the container may burst

Special Protective Equipment and Precautions for Fire-fighters

Firefighters must wear SCBA

Static Discharge

Cannot accumulate a static charge, also, high flash point makes ignition unlikely

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas. Provide adequate ventilation. wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Methods and materials for containment and cleaning up

Leak Precaution: dyke to control spillage and prevent environmental contamination.

Handling Spill: Ventilate contaminated area; recover free liquid with suitable pumps; absorb residue on an inert sorbent, sweep & pick up using plastic or aluminium shovel, & store in closed containers for recycling or disposal.

7. HANDLING & STORAGE

Precautions for Safe Handling

Avoid breathing product vapour or mist. Use with adequate ventilation. Never cut, drill, weld or grind on or near this container. Avoid prolonged contact with skin and wash work clothes frequently. An eye bath and safety shower must be available near the workplace.

Conditions for Safe Storage

Store in a cool, dry environment, away from sources of ignition, heat, acids, and oxidising agents. Empty containers may contain a flammable vapour. Always ensure that containers, whether empty or full, are tightly sealed unless in use. Replace drum, pail or IBC cap prior to moving the container!

8. EXPOSURE CONTROL & PERSONAL PROTECTION

Ontario TWAEV Not listed
AGGIH TLV Not listed
OSHA PEL Not listed

Ontario STEV Not listed
ACGIH STEL Not listed
OSHA STEL Not listed

Ventilation	The hazard potential of this product is relatively low. General ventilation is usually adequate.
Hands	wear butyl or “Viton” gloves – other types may also protect; consult supplier to confirm suitability
Eyes	safety glasses with side shields – always protect the eyes
Clothing	no special protective clothing required
Respiratory Protection	For high levels of vapors or aerosols that are not controlled by local ventilation – use NIOSH approved air-purifying organic vapor respirator. When the exposure limits may be exceeded, use an approved, positive pressure self-contained breathing apparatus or supplied air.

9. PHYSICAL & CHEMICAL PROPERTIES

Odour & Appearance	clear, colourless liquid with mild, pleasant “mothball” odour
Odour threshold	5.5ppm
pH	none – does not yield hydrogen ions in solution

Freezing point	-15°C / 5°F
Initial boiling point/boiling range	206°C / 403°F
Flash point	93°C / 200°F (closed cup), also: 94°C, 100°C, 101°C
Evaporation rate	~0.01
Flammability (solid; gas)	no data available
Lower flammable/explosive limit	1.3%
Upper flammable/explosive limit	13%
Vapour pressure	0.15mmHg / 0.02kPa (25°C/ 77°F)
Vapour density	3.7
Relative density	1.045 (20/20°C)
Water Solubility	35 grams per litre
In other solvents	most organic solvents; limited solubility in aliphatic hydrocarbons
Partition coefficient – n-octanol/water	1.1
Auto ignition temperature	435-436°C / 815-817°F
Decomposition temperature	no decomposition up to Auto ignition Temperature
Viscosity	Dynamic: 5.82 mPa·s

10. STABILITY AND REACTIVITY

Reactivity

Dangerously reactive with: strong oxidising agents – also reactive with: corrodes iron, steel & aluminum when heated (actual temperature for reaction not given)

Chemical Stability

Stable; will not polymerise – polymerizes explosively above 100°C with both acid & iron

Possibility of Hazardous Reactions

Hazardous polymerization will not occur

Conditions to avoid

Exposure to air, light, moisture and heat.

Incompatible materials

Strong oxidising agents

Hazardous decomposition products

Gradual decomposition to benzoic acid & benzaldehyde

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	
Skin Contact	irritant (3 studies report “not irritating” or “slightly irritating”, 2 report “highly irritating”, 3 “moderately irritating”); local anaesthetic action helps mask irritation; a few people develop an itchy rash or reaction (looks like hives, but with rapid recovery) – this is not an allergic response.
Skin Absorption	slight; toxic effects unlikely by this route.
Eye Contact	moderately to severely irritating, appears not to damage eyes.
Inhalation	mist or vapour causes irritation; headache, dizziness, drowsiness, intoxication & nausea may occur
Ingestion	may cause headache, dizziness, drowsiness, intoxication & vomiting; not a route of industrial exposure
LD50 (oral)	1230 – 3100mg/kg (rat, several tests), 1040, 1360 & 1580mg/kg (mouse), 1040mg/kg (rabbit), 2500mg/kg (guinea pig)
LD50 (skin)	2000mg/kg (rabbit), 5250mg/kg (guinea pig)
LC50 (inhalation)	above 114ppm (rat)

11. TOXICOLOGICAL INFORMATION, CONTINUED**General**

Prolonged or repeated exposure may cause dermatitis; may damage liver and kidneys

Sensitising

Various reports report benzyl alcohol as a sensitizer & a non-sensitizer; very few reports of human sensitization exist, benzyl alcohol is not considered a sensitizer (CCOHS “Cheminfo summary”)

Carcinogen/Tumorigen

Not known to be a tumorigen or a carcinogen in humans or animals. IARC: Not specifically listed. ACGIH®: Not specifically designated. NTP: Not specifically listed. OSHA: Not specifically listed.

Key to Abbreviations

ACGIH® =American Conference of Governmental Industrial Hygienists. IARC = International Agency

for Research on Cancer. NTP = National Toxicology Program. OSHA = US Occupational Safety and Health Administration.

Reproductive Effect

No known effect on humans; reproductive toxin in animals but accompanied by maternal toxicity

Mutagen

Not known to be a mutagen or teratogen in humans or animals

Synergistic With

Aromatic hydrocarbons and chlorinated hydrocarbons

12. ECOLOGICAL INFORMATION

Bioaccumulation	readily metabolised and will not bioaccumulate; ½-life in mammals is ~90 minutes
Biodegradation	biodegrades readily & rapidly: aerobic – 60-90% in 5 days, 92-96% in 2 weeks; anaerobic – 100% in 1-2 weeks
Abiotic Degradation	reacts with atmospheric hydroxyl (OH) radicals; estimated ½-life in air is 17 hours
Mobility in soil, water	water soluble; moves readily through soil and the water column
Aquatic Toxicity	
LC50 (Fish, 96hr)	646mg/litre (Leuciscus idus, 48hr), 10mg/litre (Lepomis macrochirus), 15mg/litre (Menidia beryllina), 460mg/litre (Pimephales promelas), >100mg/litre (Oryzias latipes)
EC50 (Crustacea, 48hr)	230 & 360mg/litre (Daphnia magna), 55 & 400mg/litre (Daphnia magna, 24hr)
EC50 (Algae)	90mg/litre (Anabaena cylindrica), 35mg/litre (Anabena variabilis), 2600mg/litre (Hematococcus pluvialis), 79mg/litre (Scenedesmus quadricauda), 700mg/litre (Pseudokirchnerella subcapitata)
EC10 (Bacteria)	50 & 71mg/litre (Photobacterium phosphoreum), 390mg/litre (Nitrosomonas sp.)

13. DISPOSAL

Waste Disposal

Do not flush to sewer, recycle solvent if possible, local regulations may permit disposal in sanitary landfill, may be incinerated in approved facility after mixing with a suitable flammable waste

Containers

Drums should be reused. Recondition and pressure test by a licensed reconditioner prior to re-use.

Pails must be vented and thoroughly dried prior to crushing and recycling.

IBCs (intermediate bulk containers): polyethylene bottle must be pressure tested & recertified at 30 months. Replace at 60 months (5yrs).

Steel containers must be inspected, pressure tested & recertified every 5 years.

***Never cut, drill, weld or grind on or near this container,
even if empty***

14. TRANSPORT INFORMATION

Canada TDG AND U.S.A. 49 CFR	PIN Shipping Name Class & Packing Group	Not regulated
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Marine Pollutant ERAP Required (CA only) Reportable Quantity (RQ – US only) Emergency Response Guide No.	Not a Marine Pollutant No None n/a
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15. REGULATORY INFORMATION

Canada DSL U.S.A. TSCA Europe EINECS	On Inventory On Inventory On Inventory
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U.S.A. Regulations:

Atmospheric Standards:

This action promulgates standards of performance for equipment leaks of Volatile Organic Compounds (VOC) in the Synthetic Organic Chemical Manufacturing Industry (SOCMI). The intended effect of these standards is to require all newly constructed, modified, and reconstructed SOCMI process units to use the best demonstrated system of continuous emission reduction for equipment leaks of VOC, considering costs, non-air quality health and environmental impact and energy requirements. Benzyl alcohol is produced, as an intermediate or a final product, by process units covered under this subpart.

State Drinking Water Guidelines: Florida 2,100 ug/L

FIFRA Requirements: As the federal pesticide law FIFRA directs, EPA is conducting a comprehensive review of older pesticides to consider their health and environmental effects and make decisions about their future use.

Under this pesticide reregistration program, EPA examines health and safety data for pesticide active ingredients initially registered before November 1, 1984, and determines whether they are eligible for reregistration. In addition, all pesticides must meet the new safety standard of the Food Quality Protection Act of 1996. Pesticides for which EPA had not issued Registration Standards prior to the effective date of FIFRA '88 were divided into three lists based upon their potential for human exposure and other factors, with List B containing pesticides of greater concern and List D pesticides of less concern. Benzyl alcohol is found on List D. Case No: 4013; Pesticide type: insecticide, fungicide; Case Status: OPP is reviewing data from the pesticide's producers regarding its human health and/or environmental effects, or OPP is determining the pesticide's eligibility for reregistration and developing the RED document.; Active ingredient (AI):

benzyl alcohol; AI Status: The active ingredient is no longer contained in any registered products ... "cancelled."

FDA Requirements: Diluents in colour additive mixtures for drug use exempt from certification. The following diluents may be safely used in colour additive mixtures that are exempt from certification and which are to be used for coloring drugs, subject to the condition that each straight colour in the mixture has been exempted from certification or, if not so exempted, is from a batch that has previously been certified and has not changed in composition since certification. Such listing of diluents is not to be construed as superseding any of the other requirements of the Federal Food, Drug, and Cosmetic Act with respect to drugs, including new drugs. If a definition and specification for a particular diluent is not set forth in this subpart, the material shall be of a purity consistent with its intended use. ... Externally applied drugs: Benzyl alcohol is included on this list. Benzyl alcohol is a food additive permitted for direct addition to food for human consumption as a synthetic flavoring substance and adjuvant in accordance with the following conditions: a) they are used in the minimum quantity required to produce their intended effect, and otherwise in accordance with all the principles of good manufacturing practice, and 2) they consist of one or more of the following, used alone or in combination with flavoring substances and adjuvants generally recognized as safe in food, prior-sanctioned for such use, or regulated by an appropriate section in this part. Benzyl alcohol is an indirect food additive for use only as a component of adhesives. Drug products containing certain active ingredients offered over-the-counter (OTC) for certain uses. A number of active ingredients have been present in OTC drug products for various uses, as described below. However, based on evidence currently available, there are inadequate data to establish general recognition of the safety and effectiveness of these ingredients for the specified uses: benzyl alcohol is included in male genital desensitizer drug products. Drug products containing certain active ingredients offered over-the-counter (OTC) for certain uses. A number of active ingredients have been present in OTC drug products for various uses, as described below. However, based on evidence currently available, there are inadequate data to establish general recognition of the safety and effectiveness of these ingredients for the specified uses: benzyl alcohol is included in poison ivy, poison oak, and poison sumac drug products. Drug products containing certain active ingredients offered over-the-counter (OTC) for certain uses. A number of active ingredients have been present in OTC drug products for various uses, as described below. However, based on evidence currently available, there are inadequate data to establish general recognition of the safety and effectiveness of these ingredients for the specified uses: benzyl alcohol is included in pediculicide drug products. Local anesthetic active ingredients. The active ingredient of the product consists of any of the following when used in the concentration or within the concentration range established for each ingredient: Benzyl alcohol 1 to 4 percent is included on this list.

16. OTHER INFORMATION

NFPA RATING	Health 0	Flammability 0	Instability 0
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Preparation Date: November 2003

Revision Dates: August 2006, August 2009, August 2012, June 2015, March 2018, August 2019

Key to Abbreviations	<p>ACGIH® = American Conference of Governmental Industrial Hygienists AIHA® = AIHA® Guideline Foundation HSDB® = Hazardous Substances Data Bank IARC = International Agency for Research on Cancer NIOSH = National Institute for Occupational Safety and Health NTP = National Toxicology Program OSHA = US Occupational Safety and Health Administration RTECS® = Registry of Toxic Effects of Chemical Substances</p>
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References	CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA (“BIOVIA”). Available from Canadian Centre for Occupational Health and Safety (CCOHS).
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