

## 1. IDENTIFICATION

<b>Product Identifier:</b>	<b>BIOPOLYSAN® 220B</b>
<b>Alternate Names:</b>	Biopolysan® 220 in Benzyl Alcohol (BPS 220B)
<b>Intended use:</b>	<b>Multifunctional preservative for cosmetic and personal care products</b>
<b>Manufacturer:</b>	Copperhead Chemical Company® Inc. 120 River Road Tamaqua, PA 18252 USA
<b>Emergency Contacts:</b>	<b>CHEMTREC (USA) (800) 424-9300</b> <b>Copperhead Chemical Company® Inc. (888) 742-4506</b>

## 2. HAZARD(S) IDENTIFICATION

**Classification of the substance or mixture:**

Product is classified as hazardous according to OSHA HCS 2012

Acute toxicity, oral: Category 4

Acute toxicity, inhalation: Category 4

Serious eye damage/irritation: Category 2A

**Signal Word:**

Warning

**Hazard Statement(s):**

Harmful if swallowed

Harmful if inhaled

Causes serious eye irritation

**Pictogram(s):**



**Precautionary Statements:**

Wash thoroughly after handling

Do not eat, drink, or smoke when using this product

Avoid breathing mist/vapors/spray

Use only outdoors or in a well-ventilated area

Wear eye protection/face protection

If swallowed: Rinse mouth

If inhaled: Remove person to fresh air and keep comfortable for breathing

Call a poison center/doctor if you feel unwell

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Dispose of contents/container in accordance with local regulations

**Hazards Not Otherwise Classified:** Ingestion of large amounts may cause central nervous system depression and metabolic acidosis.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

Ingredient/Chemical Designations	Weight %	GHS Classification
Glycerin (Glycerol) CAS Number: 56-81-5	Withheld	Not Classified
Benzyl Alcohol CAS Number: 100-51-6	Withheld	Acute toxicity, oral Cat 4 Acute toxicity, inhalation Cat 4 Serious eye damage/irritation, Cat 2A

### 4. FIRST AID MEASURES

#### Description of first aid measures:

- General:** In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
- Inhalation:** Remove to fresh air, keep patient warm and at rest. If breathing has stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention.
- Eyes:** Irrigate copiously with clean water for at least 15 minutes holding the eyelids apart, remove contact lenses. If irritation persists, seek medical attention.
- Skin:** Remove contaminated clothing. Wash skin thoroughly with soap and water.

**Ingestion:** Rinse mouth. If a large amount is swallowed or adverse effects occur, obtain medical attention. Do not induce vomiting unless directed by physician.

**Most important symptoms and effects, both acute and delayed:**

**Overview:** Causes serious irritation to eyes. May irritate skin, and respiratory tract. Ingestion of large amounts may cause central nervous system depression and metabolic acidosis.

**Chronic Effects:** No applicable information found

## 5. FIRE FIGHTING MEASURES

**Extinguishing media:**

Water fog or spray, dry chemical, carbon dioxide, alcohol resistant foam (ATC type).

**Special hazards arising from the substance or mixture:**

Violent generation of steam may occur on application of direct water stream to hot liquid.

**Hazardous decomposition products:**

High temperatures and fires may produce such toxic substances as nitrogen oxides, carbon monoxide and carbon dioxide.

**Advice for fire-fighters:**

Wear self-contained breathing apparatus with full face piece and protective fire fighting clothing. Do not use direct water stream as it may spread fire. Use water spray to cool exposed containers.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:**

All operations should be performed by trained personnel familiar with the hazards and necessary precautions. Keep unprotected and unnecessary personnel from entering the area. Use appropriate safety equipment. Remove sources of ignition. Ventilate the area. Put on appropriate personal protective equipment (see section 8). Spill area may be slippery. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing. Dispose of contaminated articles or wash them thoroughly before reuse.

**Environmental precautions:**

Do not allow spills to enter drains or waterways.

**Methods and material for containment and cleaning up:**

Large spills should be contained with a dike or a berm and can be pumped into suitable containers.

Small spills should be absorbed with inert absorbent material. Do not use combustible materials such as saw dust. Scoop wetted absorbent into suitable containers.

Keep containers closed and properly labeled.

Wash area with water and detergent.

**7. HANDLING AND STORAGE****Precautions for safe handling:**

All operations should be performed by trained personnel familiar with the hazards and necessary precautions. Practice reasonable care and take appropriate safety measures. Do not eat, drink, or smoke when handling. Wash thoroughly with water after handling.

**Conditions for safe storage, including any incompatibilities:**

Handle containers carefully to prevent damage and spillage. Store product in a cool, dry area away from heat, sources of ignition, direct sunlight, moisture and incompatible materials. Store only in original container. Product is hygroscopic; keep containers closed when not in use.

**Incompatible materials:**

Strong acids, strong bases, strong oxidizers and other materials which may react with alcohols.

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION****Exposure Limits:**

Exposure limits for the mixture have not been assigned. Limits established for the ingredients are provided as a guide.

CAS No.	Ingredient	Source	Value
56-81-5	Glycerin (Glycerol)	OSHA	TWA 15 mg/m <sup>3</sup> (total); 5 mg/m <sup>3</sup> (resp)
		ACGIH	No Established Limit
		NIOSH	No Established RELs
		Supplier	No Established Limit
100-51-6	Benzyl Alcohol	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

**Exposure controls:**

<b>Respiratory:</b>	Occupation exposures from this material should be determined by individuals with experience in industrial hygiene. The selection of appropriate respiratory protective equipment should be based on results from industrial hygiene surveys and respirator manufacturer's specifications and/or recommendations.
<b>Eyes:</b>	Wear chemical safety glasses, goggles or face shield appropriate for the potential exposure.
<b>Skin:</b>	Use protective clothing which is appropriate for the potential exposure. Any portion of the body which may come in contact with the product should be protected by materials that are impervious to the product under the conditions of use.
<b>Engineering Controls:</b>	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of mists and any vapor below occupational exposure limits suitable respiratory protection must be worn.
<b>Other Work Practices:</b>	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear, liquid
<b>Odor</b>	Slight alcohol smell
<b>Odor threshold</b>	No applicable information found
<b>pH</b>	5
<b>Melting point / freezing point</b>	-15°C (5°F) (Benzyl Alcohol)
<b>Initial boiling point and boiling range</b>	205°C (401°F) (Benzyl Alcohol)
<b>Flash Point</b>	93°C (200°F) (Benzyl Alcohol)
<b>Evaporation rate (Ether = 1)</b>	No applicable information found
<b>Flammability (solid, gas)</b>	No applicable information found
<b>Upper/lower flammability or explosive limits</b>	No applicable information found
<b>Vapor pressure</b>	0.125 hPa at 25°C (Benzyl Alcohol)
<b>Vapor Density</b>	No applicable information found
<b>Relative Density</b>	1.1030 at 25°C
<b>Solubility in Water</b>	No applicable information found
<b>Partition coefficient n-octanol/water (Log Kow)</b>	No applicable information found
<b>Auto-ignition temperature</b>	436°C (817°F) (Benzyl Alcohol)
<b>Decomposition temperature</b>	No applicable information found
<b>Viscosity (cSt)</b>	No applicable information found

## 10. STABILITY AND REACTIVITY

**Reactivity:** No applicable information found

**Chemical stability:** Stable under normal storage conditions

**Possibility of hazardous reactions:** No applicable information found

**Conditions to avoid:** No applicable information found

**Incompatible materials:** Strong acids, strong bases, strong oxidizers and other materials which may react with alcohols.

**Hazardous decomposition products:** High temperatures and fires may produce such toxic substances as nitrogen oxides, carbon monoxide and carbon dioxide.

## 11. TOXICOLOGICAL INFORMATION

**Routes of exposure:** Skin contact, eye contact, inhalation, ingestion and injection are potential routes of exposure.

**Symptoms of exposure:** See Section 4.

### Acute toxicity:

#### Oral:

LD50 = 1620 mg/kg (rat) (Benzyl Alcohol)

LD50 = 23,000 mg/kg (mice) (Glycerin)

#### Dermal:

LD50 = 2000 mg/kg (rabbit) (Benzyl Alcohol)

LD50 = 56,750 mg/kg (guinea pig) (Glycerin)

#### Inhalation:

Harmful if inhaled (Benzyl Alcohol)

LC50 (4 hr) > 2.75 mg/L (rat) (calculated) (saturated vapors at 200°C) (Glycerin)

#### Skin corrosion/irritation:

Not a skin irritant (rabbits) (Benzyl Alcohol)

Trace irritation (rabbits) (Glycerin)

#### Eye irritation:

Irritation cleared within 21 days (Benzyl Alcohol)

Not an irritant (Glycerin)

**Skin Sensitization:**

Not expected to cause skin sensitization (Benzyl Alcohol)

Not expected to cause skin sensitization (Glycerin)

**Carcinogenic Effects:** This product does not contain any ingredients that are carcinogens or potential carcinogens listed by OSHA, NTP or IARC.

**12. ECOLOGICAL INFORMATION****Ecological Toxicity:**

The product has been assessed following the conventional method and is not classified as dangerous for the environment.

**Aquatic Ecotoxicity:**

No applicable information was found for the mixture. Information about the ingredients is provided as a guide.

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Glycerin (Glycerol) CAS Number: 56-81-5	67,500.00 Rainbow trout	10,000.00 Daphnia magna	No applicable information found
Benzyl Alcohol CAS Number: 100-51-6	10 Bluegill	No applicable information found	No applicable information found

**Persistence and degradability:** No applicable information found.

**Bioaccumulative potential:** No applicable information found.

**Mobility in soil:** No applicable information found.

**13. DISPOSAL CONSIDERATIONS**

**Disposal Method:** All disposals must be in compliance with Federal, State, and Local regulations. Do not discharge effluent containing this product into any sewers, on the ground or into any body of water.

**Container Disposal:** Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product.

**14. TRANSPORT INFORMATION**

This material is not regulated by the US DOT.

**15. REGULATORY INFORMATION**

<b>Regulatory Overview:</b>	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.	
<b>Toxic Substance Control Act (TSCA):</b>	All components of this material are either listed or exempt from listing on the TSCA Inventory.	
<b>US EPA Tier II Hazards:</b>	<b>Fire:</b>	No
	<b>Sudden Release of Pressure:</b>	No
	<b>Reactive:</b>	No
	<b>Immediate (Acute):</b>	Yes
	<b>Delayed (Chronic):</b>	No
<b>EPCRA 313 Toxic Chemicals:</b>	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.	
<b>Proposition 65:</b>	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.	
<b>New Jersey RTK Substances (&gt;1%):</b>	Glycerol	
<b>Pennsylvania RTK Substances (&gt;1%):</b>	Glycerol Benzyl Alcohol	

**16. OTHER INFORMATION**

**Date Prepared: 1/25/18**

The information contained herein is believed to be accurate and represents the best information currently available to us. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. No warranty, either expressed or implied, of merchantability or fitness for a particular purpose, or of any nature with respect to the product, or to the information, is made herein.

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