

**Material Safety Data Sheet: BACTICIDE 45B**

Supersedes Date 06/12/2007

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**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Name** BACTICIDE 45B  
**Recommended Use** Biocidal product  
**Information on Manufacturer**  
 CHEM-AQUA, INC  
 BOX 152170  
 IRVING, TEXAS 75015

**Product Code** 0684  
**Chemical Nature** Aqueous solution  
**Emergency Telephone Number**  
 CHEMTREC® 800-424-9300

**2. HAZARDS IDENTIFICATION**

**Emergency Overview**

DANGER  
 Corrosive  
 Causes skin and eye burns  
 May cause allergic skin reaction  
 May cause delayed lung injury and burns  
 Harmful or fatal if swallowed

**Color** Colorless

**Physical State** Liquid

**Odor** Pungent

**Potential Health Effects**

**Principle Route of Exposure**

Skin contact, Eye contact, Inhalation.

**Primary Routes of Entry**

Skin Absorption, Ingestion.

**Acute Effects**

**Eyes**

Corrosive to the eyes and may cause severe damage including blindness.

**Skin**

Causes skin burns. May cause allergic skin reaction.

**Inhalation**

Harmful by inhalation. Causes burns.

**Ingestion**

If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. May cause central nervous system effects such as headache, dizziness, weakness, staggering gait, nausea, blurred vision, excitation, and in extreme cases, coma or death.

**Chronic Toxicity**

May cause sensitization by skin contact, Liver injury may occur.

**Target Organ Effects**

Respiratory system, Skin, Central nervous system, Bone Marrow, Liver.

**Aggravated Medical Conditions**

Respiratory disorders, Skin disorders, Liver disorders, Neurological disorders.

**Potential Environmental Effects**

See Section 12 for additional Ecological information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Component	CAS-No
Glutaraldehyde	111-30-8

**4. FIRST AID MEASURES**

**General Advice**

Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist.

**Eye Contact**

If in eyes, rinse with water for 15 minutes. Remove contact lenses. Call a physician or poison control center immediately.

**Skin Contact**

Take off all contaminated clothing immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.

**Inhalation**

Move to fresh air. Give oxygen or artificial respiration if needed. Call a physician or poison control center immediately.

**Ingestion**

Call a physician or Poison Control Center immediately. Do NOT induce vomiting.

**Notes to Physician**

Aspiration hazard if swallowed - can enter lungs and cause damage. Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression, and convulsions may be needed.

**5. FIRE-FIGHTING MEASURES**

**Flash Point** >201°F/>94°C

**Method**

Closed cup

**Autoignition Temperature** No information available.

**Flammability Limits in Air** % Hydrogen, by reaction with metals.

**Upper** 75

**Lower** 4

**Suitable Extinguishing Media**

Foam. Alcohol-resistant foam. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Specific hazards arising from the chemical**

Contact with metals liberates hydrogen gas. Material can create slippery conditions.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA** Health 3

**Flammability** 1

**Instability** 0

**HMS** Health 3

**Flammability** 1

**Instability** 0

6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions** Use personal protective equipment. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.

**Environmental Precautions** Do not flush into surface water or sanitary sewer system.

**Methods for Containment** Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

**Methods for Cleaning Up** Pick up and transfer to properly labeled containers.

**Neutralizing Agent** Not applicable.

7. HANDLING AND STORAGE

**Handling** Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist.

**Storage** Keep away from open flames, hot surfaces and sources of ignition. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Metal containers must be lined. Do not freeze.

**Storage Temperature** **Minimum** 25°F/-4°C **Maximum** 100°F/38°C

**Storage Conditions** **Indoor** X **Outdoor** **Heated** **Refrigerated**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Glutaraldehyde	0.05 ppm Ceiling (activated and inactivated)	No data available	0.2 ppm Ceiling; 0.8 mg/m <sup>3</sup> Ceiling

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment**

- Eye/Face Protection** Tightly fitting safety goggles. Face-shield.
- Skin Protection** Wear suitable protective clothing, Impervious gloves.
- Respiratory Protection** In case of insufficient ventilation wear suitable respiratory equipment. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**General Hygiene Considerations** Remove and wash contaminated clothing before re-use. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid	<b>Viscosity</b>	Non viscous
<b>Color</b>	Colorless	<b>Odor</b>	Pungent
<b>Appearance</b>	Transparent	<b>pH</b>	3.1
<b>Specific Gravity</b>	1.12	<b>Evaporation Rate</b>	1.0 (Butyl acetate=1)
<b>Percent Volatile (Volume)</b>	100	<b>VOC Content (%)</b>	45.5
<b>VOC Content (g/l)</b>	509	<b>Vapor Pressure</b>	0.2 mmHg @ °F
<b>Vapor Density</b>	1.0 (Air = 1.0)	<b>Solubility</b>	Completely soluble
<b>Boiling Point/Range</b>	213°F/101°C		

10. STABILITY AND REACTIVITY

**Chemical Stability** Stable. Hazardous polymerization does not occur.

**Conditions to Avoid** Heat, flames, and sparks

**Incompatible Products** Strong oxidizing agents, Bases, Amines, Metals, Strong acids.

**Hazardous Decomposition Products** Carbon oxides

**Possibility of Hazardous Reactions** None under normal processing.

11. TOXICOLOGICAL INFORMATION

Product Information

<b>LD50 Oral</b> rat 1,330 mg/kg	<b>LD50 Dermal</b> rabbit 1,810 - 3,170 mg/kg
<b>Skin Sensitization</b> May cause allergic skin reaction	

Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Glutaraldehyde	66 mg/kg ( Rat )	2000 mg/kg ( Rat ) 560 µL/kg ( Rabbit )	0.1 mg/L ( Rat ) 4 h	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Glutaraldehyde	no data available	skin sensitization	no data available	no data available	eyes, respiratory system, skin, liver, bone marrow

**Carcinogenicity** There are no known carcinogenic chemicals in this product.

Component	ACGIH	IARC	NTP	OSHA	Other
Glutaraldehyde	not applicable	not applicable	not applicable	not applicable	not applicable

**12. ECOLOGICAL INFORMATION**

**Product Information** Toxic to aquatic organisms.

**Component Information**

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Glutaraldehyde	EC50= 0.61 mg/L Desmodesmus subspicatus 72 h EC50= 0.84 mg/L Desmodesmus subspicatus 96 h	LC50= 5.4 mg/L Pimephales promelas 96 h LC50 7.8-22 mg/L Lepomis macrochirus 96 h LC50 7.8-13 mg/L Oncorhynchus mykiss 96 h LC50 2.6-4.8 mg/L Oncorhynchus mykiss 96 h	EC50 = 13.3 mg/L 17 h EC50 = 76.0 mg/L 5 min	EC50 0.56 - 1.0 mg/L 48 h EC50 = 14 mg/L 48 h	0.22 at 25 °C [OECD Guideline 107]

**Persistence and Degradability** No information available.  
**Bioaccumulation** No information available.  
**Mobility** No information available.

**13. DISPOSAL CONSIDERATIONS**

**Product Disposal** Dispose of in accordance with local regulations.  
**Container Disposal** Empty containers should be taken for local recycling, recovery, or waste disposal. Do not re-use empty containers.

**14. TRANSPORT INFORMATION**

**DOT**

**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s.  
**Hazard Class** 8  
**UN-No** UN3265  
**Packing Group** II  
**Description** UN3265, Corrosive liquid, acidic, organic, n.o.s.,(Glutaraldehyde), 8, PG II

**TDG**

**Proper shipping name** Corrosive liquid, acidic, organic, n.o.s.  
**Hazard Class** 8  
**UN-No** UN3265  
**Packing Group** II  
**Description** UN3265,Corrosive Liquid, Acidic, Organic, n.o.s., (Glutaraldehyde),8,PG II

**ICAO**

**UN-No** UN3265  
**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s.  
**Hazard Class** 8  
**Packing Group** II  
**Shipping Description** UN3265, Corrosive liquid, acidic, organic, n.o.s.,(Glutaraldehyde ),8,PG II

**IATA**

**UN-No** UN3265  
**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s.  
**Hazard Class** 8  
**Packing Group** II  
**ERG Code** 8L  
**Shipping Description** UN3265,Corrosive liquid, acidic, organic, n.o.s.,(Glutaraldehyde),8,PG II

**IMDG/IMO**

**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s.  
**Hazard Class** 8  
**UN-No** UN3265  
**Packing Group** II  
**EmS No.** F-A, S-B  
**Shipping Description** UN3265, Corrosive liquid, acidic, organic, n.o.s.,(Glutaraldehyde),8,PG II

**15. REGULATORY INFORMATION**

**Inventories**

TSCA Complies  
 DSL Complies

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazardous Categorization**

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	No	No	No

**CERCLA**

Component	Hazardous Substances RQs	CERCLA EHS RQs
Glutaraldehyde	Not applicable	Not applicable

**U.S. State Regulations**

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

**Canada**

This product is exempt from WHMIS due to PCP registration

**WHMIS Hazard Class**

Exempt

**16. OTHER INFORMATION**

Prepared By Dan Hollas  
 Supersedes Date 06/12/2007  
 Issuing Date 05/18/2010  
 Reason for Revision No information available.  
 Glossary No information available.  
 List of References. No information available.

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