



# Radiance

Material Safety Data Sheet

Date Prepared: March 9, 2007

Supersedes Date: September 7, 2005

## 1. CHEMICAL PRODUCT AND COMPANY DESCRIPTION

AQUATROLS CORPORATION OF AMERICA  
1273 IMPERIAL WAY  
PAULSBORO, NJ 08066  
USA

**Emergency Phone Numbers:** For emergencies involving a spill, leak, fire, exposure or accident, contact CHEMTREC (800-424-9300)

**For Product Information:** 800-257-7797

**Chemical Name or Synonym:** Algicide / Bactericide

**C.A.S. Number:**

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Reg Number	Weight%	**Exposure Limits**	
			OSHA/PEL	ACGIH/TLV
Copper as Metallic	7758-99-8	5*	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
Inert ingredients		95		

- \*Fro Copper Sulfate Pentahydrate

## 3. HAZARDS IDENTIFICATION

### A. Emergency Overview:

**Physical Appearance and Odor:** Clear blue liquid, mild odor

**Warning Statements:** DANGER - Hazards to humans and domestic animals

**B. Potential Health Effects:** **Primary Route of Entry:** Inhalation, skin, and ingestion

Effect of Overexposure:

**Acute Eye:** Corrosive. Exposure may cause severe burns, destruction of eye tissue and possible permanent injury or blindness.

**Acute Skin:** Corrosive. Contact may cause reddening, itching, inflammation, burns, blistering and possible tissue damage.

**Acute Inhalation:** Irritating. Overexposure may cause burns and tissue damage.

**Acute Ingestion:** Corrosive. May cause painful irritation and burning of the mouth and throat, painful swallowing, labored breathing, burns or perforation of the gastrointestinal tract leading to ulceration and secondary infection.

**Chronic Effects:**



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## 4. FIRST AID MEASURES

### FIRST AID MEASURES:

**EYE EXPOSURE:** Flush immediately with large amounts of water for at least 20 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get immediate medical attention.

**SKIN EXPOSURE:** Immediately flush skin with plenty of water, for at least 20 minutes, while removing contaminated clothing and shoes. Get immediate medical attention.

**INHALATION:** Remove to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Keep affected person warm and at rest. Get immediate medical attention.

**INGESTION:** If victim is conscious and alert, give 1-3 glasses of water to dilute stomach contents. Rinse mouth out with water. Do not induce vomiting unless directed by medical personnel. Get immediate medical attention.

### Medical Conditions Possibly Aggravated by Exposure:

**Notes to Physician:** All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically. No specific antidote available.

## 5. FIRE FIGHTING MEASURES

### FIRE HAZARD DATA:

**Flash Point:** not established

**Method Used:**

**Flammability Limits (vol/vol%):**

**Lower:**

**Upper:**

**General Fire Hazards:**

Water applied directly could result in spattering of acid solution.

**Hazardous Combustion Products:**

May react with high carbon metals to produce hydrogen gas, which can form an explosive mixture.

**Fire Fighting Equipment/Instructions:**

Firefighters must wear MSHA/NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.

## 6. ACIDENTAL RELEASE MEASURES

**Containment Procedures:**

Flush with water into retaining area or container. Caution should be exercised regarding personal safety and exposure to released product.

**Cleanup Procedures:**

Neutralize solution with bicarbonate of soda.

**Evacuation Procedures:**

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind.

**Special Instructions:**

Notify local authorities and the National Response Center, if required.



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## 7. HANDLING AND STORAGE

**Handling:** Avoid contact with strong oxidizers. Do not use with materials or equipment sensitive to corrosive solutions.

**Storage:** Avoid storage in excessive heat, expansion of container may occur creating spillage. Do not store in galvanized or nylon equipment.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiratory Protection:** Ventilation and other forms of engineering controls are the preferred means for controlling exposures. A NIOSH/MSHA approved air-purifying respirator with an appropriate acid cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

**Protective Gloves:** Use appropriate chemical gloves that are in usable order.

**Other Protective Clothing or Equipment:** Eye and face protection is necessary, long sleeved shirts, long pants, socks and shoes.

**Work/Hygienic Practices:** Use good personal hygiene. Body shower for prolonged skin contact.

1. Do not store, use, and/or consume food, beverages, tobacco products, or cosmetics in area where this material is stored.
2. Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
3. Wash exposed skin promptly to remove accidental splashes of contact with this material.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

**Physical Appearance:** Clear blue liquid

**Odor:** Mild odor

**pH:** 0.5

**Specific Gravity:** (H<sub>2</sub>O = 1): 1.2

**Water Solubility:** Complete

**Melting Point Range:** N/A

**Freezing Point Range:**

**Boiling Point Range:** 220°F

**Vapor Pressure:** 0.1 mm (68°F)

**Vapor Density:** (Air = 1): 1.0

**Percent Volatiles:** **Volume %:** **Weight %:**

**Viscosity:**

**Weight Per gallon:** 9.9 lbs per gallon

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** This material is stable under normal handling and storage conditions.

**Conditions to be Avoided:** Avoid mixing with strong bases and strong reducing agents.

**Incompatibility:** Incompatible with strong bases and strong reducing agents.



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**Hazardous Decomposition Products:** Sulfur dioxide and sulfur trioxide may be produced with decomposition.  
**Hazardous Polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity / Chronic Toxicity:** Continued overexposure to this solution may cause systemic toxicity.  
**Carcinogenicity:** N/A  
**Signs and Symptoms of Exposure:** Overexposure may cause the following symptoms, depending on the concentration and duration of exposure: vomiting, shallow respiration and lung function changes.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity Information:** No data available  
**Environmental Fate Information:** No data available  
**Chemical/Physical Information:** No data available  
**Waste Disposal Method:** Dispose of wastes in a manner consistent with federal, state, and local regulation.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Neutralize with bicarbonate of soda or fertilizer grade lime and dispose of wastes in a manner consistent with federal, state, and local regulations.

## 14. TRANSPORTATION INFORMATION

US Department of Transportation (DOT):

**Shipping Name:** Corrosive liquid, acidic, inorganic, n.o.s. (contains cupric sulfate)  
**UN/NA #** UN3264  
**Packing Group:** III  
**Hazard Class:** 8

*Packages that contain more than 5.1 US gallons are RQ (reportable quantity)*

*Packages that contain less than 4.0 liters could be ORM-D*

*The proper shipping information is the responsibility of the shipper and this information is only guidelines.*

## 15. REGULATORY INFORMATION

**Inventory Status:**

Inventory	Status
UNITED STATES (TSCA)	
CANADA (DSL)	
EUROPE (EINECS/ELINCS)	
AUSTRALIA (AICS)	
JAPAN (MITI)	
SOUTH KOREA (KECL)	



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- Y: All ingredients are on the inventory.
- E: All ingredients are on the inventory or exempt from listing.
- P: One or more ingredients fall under the polymer exemption or are on the no longer polymer list. All other ingredients are on the inventory or exempt from listing.
- N: Not determined or one or more ingredients are not on the inventory and are not exempt from listing.

## FEDERAL REGULATIONS:

### Inventory Issues:

### SARA Title III Hazard Classes:

- Fire Hazard
- Reactive Hazard
- Release of Pressure
- Fire Hazard
- Reactive Hazard
- Release of Pressure
- Acute Health Hazard
- Chronic Health Hazard

## OTHER FEDERAL REGULATIONS:

### FDA Status:

### FIFRA Status:

## STATE REGULATIONS:

### Prop 65 (Carcinogen):

### Prop 65 (Teratogen):

## 16. OTHER INFORMATION

### National Fire Protection Association Hazard Ratings – NFPA (R):

- 2 Health Hazard Rating - Moderate
- 0 Flammability Rating -- Minimal
- 1 Reactivity Rating -- Slight

### Hazardous Materials Identification System - HMIS(R):

- 2 Health Hazard Rating - Moderate
- 0 Flammability Rating -- Minimal
- 1 Reactivity Rating – Slight
- X Personal Protection

### Key Legend Information

- ACGIH American Conference of Governmental Industrial Hygienists
- OSHA Occupational Safety and Health Administration
- TLV Threshold Limit Value
- PEL Permissible Exposure Limit
- TWA Time Weighted Average
- STEL Short-Term Exposure Limit
- NTP National Toxicology Program
- IARC International Agency for Research on Cancer



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ND      Not determined

**Reason for Revisions:** Updated component information from manufacturer. This MSDS replaces the March 1, 2005, MSDS.

**Disclaimer:**

While the information and recommendations set forth herein are believed to be accurate, we make no warranty with respect hereto and disclaim all liability from reliance thereon.

**End of MSDS Document**