

83918-5

07-27-2011

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**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
 Office of Chemical Safety and Pollution Prevention  
 Office of Pesticide Programs  
 Registration Division (7504P)  
 1200 Pennsylvania Ave., N.W.  
 Washington, DC 20460

EPA Reg. Number:

Date of Issuance:

**83918-5**

**JUL 27 2011**

Term of Issuance:  
Unconditional

Name of Pesticide Product:  
**CLAR+ION CS4**

**NOTICE OF PESTICIDE:**

- Registration
- Reregistration  
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

**General Chemical LLC**  
**90 East Halsey Road**  
**Parsippany, NJ 07054**

Mailed to:

Wendy Brescia  
 Paralegal & Shared Services Analyst  
 General Chemical Corp.  
 GT Technologies Inc.

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

EPA received a label amendment request submitted by email on July 20, 2011. EPA grants this request under the authority of section 3(c)(5) of the Federal Insecticide, Fungicide and Rodenticide Act, as amended. With this accepted labeling, all requirements set forth in the Reregistration Eligibility Decision for coppers have been satisfied. Therefore, EPA reregisters the product listed above. This action is taken under the authority of section 4(g)(2)(c) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Reregistration under this section does not eliminate the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product.

Signature of Approving Official:

Date:

**JUL 27 2011**

Tony Kish, Product Manager (22)  
 Fungicide Branch/Registration Division/OPP/OCSP (7504P)

Submit one (1) copy of final printed labeling. Amended labeling will supersede all previously accepted labels. A copy of your label stamped "Accepted" is enclosed for your records. Products shipped after 12 months from the date of this Notice or the next printing of your label, whichever occurs first, must bear the new revised label.

The basic Confidential Statement of Formula (CSF) dated 5/20/2010 referred to above, submitted in connection with reregistration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable. This CSF supersedes all CSFs previously accepted for this product.

If you have any questions or comments regarding this letter, please contact Robert Westin at (703) 305-5721 or via e-mail at [westin.robert@epa.gov](mailto:westin.robert@epa.gov).

Enclosure:

Label stamped "Accepted"  
PRB Label Review dated 8/26/2010  
Acute Toxicity Review DP357139 dated 10/9/2008  
Product Chemistry Review DP380935 dated 8/11/2010  
Product Chemistry Review (CSF) DP378483 dated 6/16/2010  
Product Chemistry Review DP375753 dated 3/30/2010

# CLAR+ION CS4

**Active ingredient:**

Copper sulfate pentahydrate* (CAS # 7758-99-8).....	1.0%
Other ingredients:.....	99.0%
<b>TOTAL:</b>	<b>100.0%</b>

\*METALLIC COPPER EQUIVALENT, 0.25%

Density 10.85 pounds per gallon

## KEEP OUT OF REACH OF CHILDREN

### CAUTION

FIRST AID	
If in eyes:	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
If inhaled:	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
If on skin or clothing:	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
If swallowed:	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	

**ACCEPTED**

(JUL 27 2011)

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 83910-5

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**PRECAUTIONARY STATEMENTS  
HAZARDOUS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

**CORROSIVE.** Causes moderate eye irritation. Avoid contact with eyes or clothing. For applications in waters destined for use as drinking water, those waters must receive additional and separate potable water treatment. Do not apply more than 1.0 ppm as metallic copper in these waters.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and other handlers must wear: long-sleeve shirt, long pants, shoes and socks. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

Consult MSDS for additional information

Maximum use for potable water application is 0.307 milliliters product per liter (1 ppm metallic copper equivalent).

**Manufactured by:  
General Chemical, LLC  
5302 County Road 2047  
Odem, TX 78380**

**EPA REG. NO. 83918-5  
EPA EST. NO. 83918-TX-001**

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### **USER SAFETY RECOMMENDATIONS**

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. Do not contaminate water when disposing of equipment wash waters or rinsate.

### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

### **STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE STORAGE:** Keep pesticide in original container. Do not put concentrate or dilutions of concentrate in food or drink containers.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. Open burning and dumping is prohibited. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER HANDLING:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Empty drums in accordance with use directions. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about ten percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Reseal and offer for reconditioning or recycling. Consult federal, state or local disposal authorities for approved alternative methods.

## GENERAL INSTRUCTIONS FOR USE

CLAR+ION CS4 is a flocculant-algicide blended product which contains Copper Sulfate as the active ingredient to inhibit algae growth. CLAR+ION CS4 contains aluminum sulfate which is used to coagulate suspended and/or colloidal particles in a liquid to affect a liquid-solid separation. CLAR+ION CS4 is best used to inhibit algae regrowth inside a water plant, once the initial growth has been removed chemically or physically. CLAR+ION CS4 is intended exclusively for use in impounded raw water which is being immediately treated for public consumption inside the water plant. Do not add to lakes, reservoirs, or holding ponds. NOTE: USEPA Lead and Copper Rule maximum is 1.3 ppm. Do not exceed 2 ppm copper sulfate pentahydrate (See attached table),

CLAR+ION CS4 is injected in the first section of the water treatment plant. Normal injection locations include the rapid mix chamber or any similar device for mixing coagulant chemicals. This chamber then feeds the dosed water into the clarifiers or settling basins of the water plant. CLAR+ION CS4 can also be injected at various locations along the transfer pipe which delivers raw water into the water plant. Clar+Ion CS4 is not to be injected into potable water impoundments located outside the water plant, such as lakes, ponds, or reservoirs.

**CALCULATIONS FOR THE AMOUNT OF CLAR+ION CS4 TO BE USED:** Calculations for the amount of water volume is based on the municipality's million gallons per day (MMg) water usage. Jar testing of the raw water to be treated will indicate the optimum dosage of the aluminum sulfate flocculant in parts per million (ppm) which is the primary function of CLAR+ION CS4. Each ppm flocculant delivers 0.01 ppm copper sulfate pentahydrate. The parts per million indicated in testing is multiplied by 1% (0.01) to obtain the parts per million copper sulfate pentahydrate. The 0.01 ppm copper salt (25.45 wt% metallic copper) contains 0.0025 ppm elemental copper for suppressing algae growth inside the water plant. For example, if jar testing shows that 50 ppm of flocculant is the optimum dosage for coagulation, then CLAR+ION CS4 will also deliver 0.50 ppm of copper sulfate pentahydrate. CLAR+ION CS4 thus provides algae inhibition by the copper sulfate as its secondary function. The 0.50 ppm of copper salt (25.45 wt% metallic copper) contains 0.127 ppm elemental copper for suppressing algae.

**MAXIMUM USE FOR POTABLE WATER APPLICATION IS 0.307 MILLILETER OF PRODUCT PER LITER OF WATER (1 ppm metallic copper equivalent).**

### COPPER SULFATE PENTAHYDRATE REQUIRED FOR TREATMENT OF DIFFERENT GENERA OF ALGAE

The genera of algae listed below are commonly found in waters of the United States.  
Always consult State Fish and Game Agency before applying this product to municipal waters.

ORGANISM	0.25 - 0.50 PPM	0.5 - 1.0 PPM	1.0 - 1.5 PPM	1.5 - 2.0 PPM
Cyanophyceae (Blue-green)	Anabaena Anacystis Aphanizomenon Gloeotrichia Gomphosphaeria Polycystis Rivularia	Cylindrospermum Oscillatoris Plectonema	Nostoc Phormidium	Calothrix Symploca
Chlorophyceae (Green)	Closterium Hydrodictyon Spirogyra Ulothrix	Botryococcus Cladophora Coelastrum Draparnaldia Enteromorpha Gloeocystis Microspora Tribonema Zygnema	Chlorella Crucigenia Desmidiium Golenkinia Oocystis Palmella Pithophora Staurastrum Tetraedron	Ankistrodesmus Chara Nitella Scenedesmus
Diatomaceae (diatoms)	Asterionella Fragilaria Melosira Navicula	Gomphonema Nitzschia Stephanodiscus Synedra Tabellaria	Achnanthes Cymbella Nudum	
Protozoa (Flagellates)	Dinobryon Synura Uroglana Volvox	Ceratium Cryptomonas Euglena Glenodinium Mallomonas	Chlamydomonas Hawmatococcus Peridinium	Eudorina Pandorina

0.25 - 0.50 ppm CuSO<sub>4</sub>.5H<sub>2</sub>O - (50 - 101 ml/min per MMgpd\*)  
1.0 - 1.5 ppm CuSO<sub>4</sub>.5H<sub>2</sub>O - (202 - 303 ml/min per MMgpd\*)

0.50 - 1.0 ppm CuSO<sub>4</sub>.5H<sub>2</sub>O - (101 - 202 ml/min per MMgpd\*)  
1.5 - 2.0 ppm CuSO<sub>4</sub>.5H<sub>2</sub>O - (303 - 404 ml/min per MMgpd\*)

Calculations are based Clar+lon CS4 containing 1% copper sulfate pentahydrate.

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NOTICE: General Chemical, LLC warrants that this product in its unopened package conforms to the chemical description on the label. THERE ARE NO OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. This warranty does not extend to the handling or use of this product contrary to label instructions or under abnormal conditions or under conditions not reasonably foreseeable to seller and buyer assumes all risk of any such use.

07/20/11