



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Biopesticides and Pollution Prevention Division (7511P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

88031-23

Date of Issuance:

12/1/15

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Choline Chloride SP

Name and Address of Registrant (include ZIP Code):

CP Bio, Inc.  
P.O. Box 3367  
Ontario, CA 91761

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention 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 under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA or the Act).

Registration is in no way to be construed as an endorsement or recommendation of this product by the U.S. Environmental Protection Agency (EPA). In order to protect health and the environment, the Administrator, on his or her 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 the 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.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration or registration review of your product when the EPA requires all registrants of similar products to submit such data.
2. Make the following labeling change before you release this product for shipment:  
Revise the EPA Registration Number to read, "EPA Reg. No. 88031-23.
3. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.

Signature of Approving Official:

Robert McNally, Director  
Biopesticides and Pollution Prevention Division (7511P)  
Office of Pesticide Programs

Date:

12/1/15

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

- Basic CSF dated 11/11/15.

If you have any questions, please contact Chris Pfeifer by phone at 703-308-0031 or via email at [pfeifer.chris@epa.gov](mailto:pfeifer.chris@epa.gov).

Sincerely,



Robert McNally, Director  
Biopesticides and Pollution Prevention Division (7511P)  
Office of Pesticide Programs

Enclosure

492144

# Choline Chloride SP

Plant Growth Regulator for Improved Plant Growth for Plants  
Grown in Sodic Soils

## ACTIVE INGREDIENT:

Choline Chloride ..... 19.75%

OTHER INGREDIENTS: ..... 80.25%

TOTAL: ..... 100.00%

**ACCEPTED** KEEP OUT OF THE REACH OF CHILDREN

DEC 01 2015

Under the Federal Insecticide, Fungicide,  
and Rodenticide Act, as amended, for  
the pesticide registered under  
EPA Reg. No. 88031-23

## CAUTION

### FIRST AID

<b>IF IN EYES:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• 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>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"><li>• Call 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 the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>IF INHALED:</b>	<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 by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
<b>IF ON SKIN OR CLOTHING:</b>	<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>

### HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Pesticide Information Center at (800) 858-7378 for general or medical information.

EPA REG. NO. 88031-EG  
EPA EST. NO. 88031-CA-001

BATCH NUMBER:  
NET CONTENTS: Quart, Gallon, 2.5 gallon



# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Caution. Harmful if swallowed, inhaled, or absorbed through skin. Causes moderate eye and skin irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or mist. Wash thoroughly with soap and water after handling and before eating, drinking or chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Socks
- Shoes
- Chemical-Resistant gloves

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.

## USER SAFETY RECOMMENDATIONS

- 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

Do not apply directly to water, in areas where surface water is present, or in intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

## **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 applications. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is: coveralls, socks, shoes, chemical resistant gloves.

### **NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

### **GENERAL INFORMATION**

Use only as directed. The label should be read thoroughly and understood before making applications.

Do not apply this product through any type of irrigation system.

### **APPLICATION CONDITIONS**

Choline Chloride SP contains Choline, a plant growth regulator. When applying plant growth regulators, follow the label directions for rates, timings, and water volumes.

- Do not apply untested spray mixes.



- Do not apply to plants under pest, nutritional, or water stress.
- Effectiveness requires that all parts of plant or crop receive thorough spray coverage or desired result will not occur. Prepare solution concentrations by mixing the required amount of product with water in a clean, empty spray tank. Dispose of any unused spray material at the end of each day following local, state or federal law.
- For best results, use water with a neutral pH and always below 8.5.
- Choline Chloride SP applications made under slow drying conditions (cool to warm temperatures, medium to high relative humidity, and no wind) will increase absorption by the plant, thus optimizing effectiveness. Night-time applications are encouraged when day-time conditions are not conducive to slow drying conditions.
- Do not apply Choline Chloride SP if a rain event is anticipated within 3 hours of application.
- Compatibility: The Choline Chloride SP spray guidelines refer to the use of the product alone. CP Bio, Inc. does not assume responsibility for unexpected results due to the tank mixing of Choline Chloride SP with other products.
- DO NOT apply using ULV application methods. For aerial applications use spray volumes of 2 gallons per acre or greater (10 gallons per acre for tree crops).

## MIXING AND SPRAY INSTRUCTIONS

**Mixing:** Add Choline Chloride SP to the spray tank with the agitation running. Make sure that the powder is fully dissolved in the water. The spray tank should be 2/3 full with the proper amount of water to provide sufficient coverage to the foliage.

**Spraying:** Make spray mixtures in sufficient volume to cover the crop foliage. Sprays can be applied by ground equipment or aircraft.

## SPRAY INSTRUCTIONS FOR CROP CATEGORIES

Crop	Timing	Rates
Fruiting Vegetables	At transplanting, when growth slows during season 2-4 applications	100-300 ppm 2-4 times per season.
Cereal Grains	Apply foliar spray 3-4 times per season when growth slows.	100-400 ppm 3-4 times per season.
Stone Fruit	Apply to early growth and continue 3-4 times per season.	200-500ppm in sufficient water to cover foliage.
Nut Crops	Apply 3-4 times per season as foliar spray.	200-500ppm in sufficient water to cover foliage.
Cotton	Apply to early growth then 2- 4 times per season as needed.	100-400ppm in sufficient water to cover foliage.

**CONVERSION TABLES**

28.35 grains = 1 ounce

1 gram <sup>9</sup>.035 ounce

<b>Grams of Choline Chloride SP Per Acre</b> <i>Desired Choline Chloride Concentration (Grams Active Ingredient per acre) in Finished Spray</i>	<b>Grams of Choline Chloride SP Formulation Per Acre</b> <i>Choline Chloride SP powder contains 1.0 Gram Active Ingredient in 5 grains of formulated product</i>
0.2	1
0.5	2.5
1.0	5
2.0	10
4.0	20
5.0	25
8.0	40
10.0	50
12.0	60
16.0	80
20.0	100
25.0	125
32.0	160
40.0	200
48.0	240
50.0	250
128.0	640

<b>ppm (parts per million) Choline Chloride SP</b>	<b>Grams of Choline Chloride SP per gallon of spray</b>
50	1.9
100	3.8
250	9.4
500	18.9
750	28.3
1,000	37.7

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:**

Keep containers tightly closed when not in use. Store away from any heat source.

**PESTICIDE DISPOSAL:**

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:**

Use label language appropriate for container size and type.

**NONREFILLABLE CONTAINERS:** Do not reuse or refill this container. Clean container promptly after emptying.

**Non-refillable container equal to or less than 5 gallons.** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour restate into application equipment or a mix tank or store restate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Non-refillable container greater than 5 gallons.** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the containers over onto its other end and tip it back and forth several times. Empty the restate into application equipment or a mix tank or store restate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning, if burned, stay out of smoke.

### LIMITED WARRANTY AND DISCLAIMER

It is the manufacturer's intention that this product is to be used in accordance with the Directions for Use as stated on this label. The use of this product being beyond control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such use or the results to be obtained if not used in accordance with label directions and established safe practice. To the fullest extent permitted by law, the buyers exclusive remedy and manufacturer's or seller's exclusive liability for any and all claims, losses, damages or injuries resulting from the use or handling of this product, whether or not based in contract, negligence, strict liability in tort or otherwise, shall be limited, at the manufacturer's option, to replacement of, or the repayment of the purchase price for the quantity of product with respect to which damages are claimed.

Manufactured For:  
CP Bio, Inc. 601 Kettering Drive, Ontario, CA 91761