

# MATERIAL SAFETY DATA SHEET



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Rev Date: 06/14/2006  
MSDS Date: 07/28/2000  
Supersedes: 01/14/1992

## TRANSPORTATION EMERGENCY

CHEMTREC: .....(800)-424-9300

## EMERGENCY AND PRODUCT INFORMATION

OHP, Inc.: .....(800)-356-4647

# CYCOCEL® PLANT GROWTH REGULANT

EPA Registration Number: 241-74-59807

## I. CHEMICAL PRODUCT INFORMATION

Trade Name .....: CYCOCEL® PLANT  
GROWTH REGULANT  
Chemical Name .....: 2-chloro-N,N,N,-  
trimethylethanaminium chloride  
Synonyms .....: chlormequat chloride,  
CL38,555; CCC  
Formula .....: C5 H13 C12 N  
Chemical Family .....: quaternary ammonium  
Mol Wt .....: 158.1

## II. INGREDIENTS

| COMPONENT            | CAS No.  | %     | PEL/TLV – SOURCE |
|----------------------|----------|-------|------------------|
| chlormequat chloride | 999-81-5 | 11.80 | None established |
| Inerts               | N/A      | 88.20 | None established |

SARA Title III Section 313: Not listed

## III. PHYSICAL DATA

Boiling/Melting Point  
@ 760mm Hg .....: 100°C  
pH .....: 4.8 – 5.2  
Vapor Pressure mmHg @ 20°C .....: Similar to water  
Specific Gravity or Bulk Density .....: 1.02 g/mL  
Solubility in Water .....: Complete  
Appearance .....: Pale yellow liquid  
Odor .....: Fishy  
Intensity .....: Slight

## IV. FIRE AND EXPLOSION DATA

Flash Point (test method) .....: > 190°F TCC  
Autoignition Temp .....: N/D  
Flammability Limits in Air (% by Vol):  
Lower: N/D  
Upper: N/D  
NFPA 704 HAZARD CODES  
Health: N/R Flammable: N/R Instability: 0 Other: N/R  
NFPA 30 Storage Classification .....: N/R  
Extinguishing Medium .....: Use water fog, foam, CO(2),  
or dry chemical extinguishing media.  
Special Fire Fighting Procedures .....: Firefighters should be  
equipped with self-contained breathing apparatus and  
turnout gear.  
Unusual Fire Explosion Hazards .....: None known.  
Decomposition temperature for the technical = 245° C.

## V. HEALTH DATA

### TOXICOLOGICAL TEST DATA:

Data for the formulated product:

Rat, Oral LD50 (male) > 3915 mg/kg  
Rat, Inhalation LC50 (4 hr, actual) – Not available  
Rat, Inhalation LC50 (1 hr calculated) – Not available  
Rabbit, Dermal LD50 (male) 5075  
Rabbit, Eye Irritation – Not irritating  
Rabbit, Skin Irritation – Not irritating  
Guinea pig, Dermal Sensitizer – Not available

This product demonstrated a wide range of oral LD50's among animal species, tending to be more toxic in higher species such as the dog and monkey than in lower species such as the mice and rat. It is prudent to assume that it may be at least moderately toxic to humans on ingestion.

OSHA, NTP, or IARC Carcinogen .....: Not listed.

### Effects of Overexposure:

See Product Label and Directions For Use for additional precautionary statements.

CAUTION: KEEP OUT OF REACH OF CHILDREN  
HARMFUL IF SWALLOWED OR ABSORBED THROUGH THE SKIN.  
AVOID CONTACT WITH THE SKIN, EYES, AND CLOTHING.

Prolonged exposure to this product may be irritating to the respiratory tract.

Existing medical conditions aggravated by this product: None known.

### FIRST AID PROCEDURES

If swallowed .....: Call a physician or Poison  
Control Center. Drink 1 or 2 glasses of water and  
induce vomiting by touching back of throat with finger.  
If person is unconscious, do not give anything by mouth  
and do not induce vomiting. Avoid alcohol.

If in eyes .....: Flush eyes with plenty of  
water. Call a physician if irritation persists.

If on skin .....: Wash with plenty of  
soap and water. Get medical attention if irritation  
persists.

If inhaled .....: Move person to fresh air. If  
person is not breathing, call 911 or an ambulance, then  
give artificial respiration, preferably mouth-to-mouth, if  
possible. Call a poison control center or doctor for further  
treatment advice.

Note to physician .....: Chlormequat chloride is a  
weak ganglionic stimulant with an action similar to that  
of nicotine. An effective antidote has not been established.  
Based on animal studies, atropine is definitely  
contraindicated as it may act synergistically with this  
choline derivative once poisoning has taken place.

Note .....: Have the product container  
or label with you when calling a poison control center or

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doctor or going for treatment.

### VI. REACTIVITY DATA

**Stability** ..... Stable. Do not store below 32°F.

**Conditions to Avoid** ..... Store in original container in cool, dry well ventilated place away from ignition sources, heat or flame.

**Chemical Incompatibility** ..... Oxidizing agents, strong alkalis, KMNO<sub>4</sub>, carbon steel

**Hazardous Decomposition**

**Products** ..... Oxides of carbon and nitrogen, HCl and alkylamines

**Hazardous Polymerization** ..... Does not occur.

**Conditions to Avoid** ..... Does not polymerize.

**Corrosive to Metal** ..... carbon steel

**Oxidizer** ..... No

### VII. PERSONAL PROTECTION

**PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170.**

#### **RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:**

**Respiratory Protection** ..... Supplied air respirators should be worn if large quantities of mist/dust are generated or prolonged exposure possible.

**Eye Protection** ..... Chemical goggles when respirator does not provide eye protection.

**Protective Clothing** ..... Gloves and protective clothing as necessary to prevent skin contact.

**Ventilation** ..... Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

### VIII. ENVIRONMENTAL DATA

#### **Environmental Toxicity Data**

See the product label for information regarding environmental toxicity.

#### **SARA 311 / 312 REPORTING**

**FIRE: N**      **PRESSURE: N**      **REACTIVITY: N**  
**ACUTE: Y**      **CHRONIC: N**      **TPQ(lbs): N/R**

**Spill and Leak Procedures** ..... In case of large scale spillage of this product, avoid contact, isolate area and keep out animals and unprotected persons. Call CHEMTREC (800) 424-9300 or OHP, INC. (800)-356-4647. For a small spill, wear personal protective equipment as specified on the label.  
For a Liquid Spill: Dike and contain the spill with inert material (sand, earth, etc.) and transfer the liquid and solid diking materials to separate containers for disposal.

**Hazardous Substance Superfund** : No

**RQ(lbs)** ..... None

**Waste Disposal Method** ..... Pesticide wastes are acutely hazardous. Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Hazardous Waste 40CFR261** ..... No

**Hazardous Waste Number** ..... None

**Container Disposal** ..... For Plastic Containers: Triple rinse (or equivalent) and add rinsate to the spray tank. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### IX. SHIPPING DATA - PACKAGE

**D.O.T. Proper Shipping Name (49CFR172.101-102):**

**Hazardous Substance (49CFR CERCLA List):**

**RQ(lbs)** ..... None

**D.O.T. Hazard Classification**

**(CFR 172.101-102)** ..... Primary

Secondary

**D.O.T. Labels Required (49CFR172.101-102):**

**D.O.T. Placards Required (CFR172.504):**

**Poison Constituent (49CFR172.203(K)):**

**Bill of Lading Description** ..... This section has been left blank intentionally.

**CC NO.:**

**UN/NA Code:**

### X. ADDITIONAL INFORMATION

#### **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under 'Agricultural Use Requirements' in the Directions for Use section for information about this standard.

#### **DISCLAIMER**

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OHP 981660 / 981661 / 981662 06/06