

MATERIAL SAFETY DATA SHEET



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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, KMNO₄, 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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