



Safety Data Sheet

Report Date 20-Apr-15

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1. Identification

Product Name : CitriFLO 5-0-0
Synonyms : None
Product Use : Foliar Nutritional Formulation
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification

Signal Word : Warning (no symbol)
Skin Irritation : Causes mild skin irritation.
Eye Irritation : Causes eye irritation.
Acute Toxicity Oral : May be harmful if swallowed.
Acute Toxicity Dermal : May be harmful in contact with skin.

Hazard Categories : Oral/Dermal/Inhalation Toxicity - 5/5/5; Eye Irritation - 2B; Skin Irritation - 3

Hazard Statement : May be harmful if swallowed
May be harmful in contact with skin
Causes eye irritation
Causes mild skin irritation
May be harmful if inhaled

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Blend of plant nutrients derived from urea, manganese chloride, zinc chloride and kelp (<i>Ascophyllum nodosum</i>). GUARANTEED ANALYSIS: Total Nitrogen (N): 5.00% Manganese (Mn): 2.80% Zinc (Zn): 4.20%	Proprietary	100.00

4. First Aid Measures

Eye : Immediately flush eyes with water, continuing for 15 minutes. Seek medical attention.

Skin : Immediately wash affected area with soap and water. If irritation persists, seek medical attention.

Inhalation : Move to fresh air. If irritation develops or persists, seek medical attention.

Ingestion : Wash out mouth with water. Do not give anything by mouth to drink. Do not induce vomiting. Seek medical attention.

Indication of Immediate Medical Attention and Special Treatment Needed : Treat symptomatically.

5. Fire Fighting Measures

Extinguishing Media : Non-combustible liquid. Use extinguishing agent suitable for underlying cause of fire.



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- Specific Hazards Arising from the Chemical** : May emit toxic and irritating gases under fire conditions.
- Special Fire Fight Proc** : Wear self-contained breathing apparatus and full protective clothing. Provide holding for contaminated fire-fighting water.

6. Accidental Release Measures

- Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area. Avoid contact with skin and eyes.
- Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.
- Emergency Procedures** : Dike spilled material to prevent entry into lakes, streams, ponds and storm drains.
- Methods and Materials for Containment and Cleanup** : Collect spilled material using an inert absorbent and place in suitable container for proper disposal. Impacted soils may require removal and disposal.

7. Handling and Storage

- Precautions for Safe Handling** : Keep out of reach of children. Keep container tightly closed, do not allow water to be introduced to the contents of this container. Do not contaminate water sources by cleaning of equipment or disposal of spray waste.
- Conditions for Safe Storage** : Store out of frost (-10 Degrees C) and if possible, in a cool place. Keep from freezing. Store away from alkaline materials.

8. Exposure Controls / Personal Protection

- TLV/PEL** : No information found
- Appropriate Engineering Controls** : General or local exhaust normally sufficient.
- Personal Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.

9. Physical and Chemical Properties

- Odor/Appearance** : Slightly hazy orange liquid; slight odor.
- Flash Point, °F** : Non-combustible
- Boiling Point, °F** : Not determined
- Melting Point(Freezing point), °C** : Not determined
- Vapor Pressure, mm Hg @ 20 °C** : Not applicable
- Vapor Density** : Not applicable
- Solubility in Water** : Soluble
- Molecular Formula** : Not applicable, formulated mixture.
- Density, g/mL @ 25 °C** : 1.224 to 1.234
- Evaporation Rate(Butyl Acetate = 1)** : Not determined
- Octanol/Water Partition Coefficient** : No information found
- pH** : 0.5 to 1.0
- Flammable Limits (approximate volume % in air)** : Not applicable
- Auto-ignition Temperature** : Not determined
- Decomposition temperature** : No information found



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10. Stability and Reactivity

- Reactivity** : No information found
- Chemical Stability** : Stable
- Hazardous Decomposition** : May release nitrogen oxides and chlorine under fire conditions.
- Products**
- Hazardous Polymerization** : Will not occur
- Conditions to Avoid** : None currently known.
- Incompatible Materials** : Avoid storage with flammable products and contact with alkaline materials.

11. Toxicological Information

- Acute Toxicity (Oral LD50)** : No data available. May be harmful if swallowed.
- Acute Toxicity (Dermal LD50)** : No data available. May be harmful in contact with skin.
- Acute Toxicity Inhalation LC50** : No data available. May be harmful if inhaled.
- Likely Routes of Exposure** : Eyes, skin, ingestion
- Skin Irritation** : Causes mild skin irritation.
- Eye Irritation** : Causes eye irritation.
- Skin Sensitization** : No information found
- Carcinogenic** : Not listed.
- Chronic Effects** : None currently known for this mixture.
- Other Hazards** : None currently known.

12. Ecological Information

- Ecotoxicity** : No information found
- Persistence and Degradability** : No information found
- Bioaccumulative Potential** : No information found
- Mobility in Soil** : No information found
- Other Adverse Effects** : No information found

13. Disposal Considerations

- Waste Disposal Method** : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

14. Transport Information

- UN Proper Shipping Name** : Not regulated by D.O.T.
- Transport Hazard Class** : None
- UN Identification Number** : None
- Packaging Group** : None
- Environmental Hazards** : No information found
- Transport in Bulk** : No information found
- Special Precautions for Transportation** : Regulated if offered for shipment by air (IATA) or water (IMDG): UN1760, Corrosive Liquid, n.o.s., (Manganese Chloride, Zinc Chloride), 8, PG III "ERG # 154"
- Freight Classification** : Fertilizing Compound, (Manufactured Fertilizer), Liquid, NOIBN (NMFC Item 68140, Sub 6, Class 70)



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15. Regulatory Information

National Fire Protection Association Rating :

Health: 2 Fire: 1 Reactivity: 0
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

S.A.R.A Title III Hazard Classification (Yes/No) :

Immediate(Acute) Health: Y
Delayed (Chronic) Health: N
Sudden Release of Pressure: N
Fire: N
Reactive: N

16. Other Information

Data of Preparation/Revision : 20-April-2015