



Safety Data Sheet

Report Date 26-Jun-17

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1. Identification

Product Name : ENC Flex
Synonyms : None
Product Use : Inorganic liquid fertilizer
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
Skin Irritation : Slightly irritating (rabbits)
Eye Irritation : Mildly irritating in nonwashed eyes. Minimally irritating in washed eyes. (rabbits)
Acute Toxicity Oral : LD50 >5,010 mg/kg (rats)
Acute Toxicity Dermal : LD50 >2,020 mg/kg (rabbits)

Hazard Categories : Oral/Dermal/Inhalation Toxicity-5/5/5; Eye/Skin Irritation-2B/3; Skin Sensitization-1B

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

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Blend of plant nutrients derived from tetrapotassium pyrophosphate, phosphoric acids, urea, sodium tetraborate, cobalt sulfate, sodium molybdate, iron EDTA, copper EDTA, manganese EDTA, and zinc EDTA. Note: The chelating agent is EDTA (ethylenediaminetetraacetic acid).	Proprietary	100.00

4. First Aid Measures

Eye : Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

Skin : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation : 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.

Ingestion : Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water. Do not induce vomiting. Do not give anything by mouth if unconscious.



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Indication of Immediate Medical Attention and Special Treatment Needed : In the event of an adverse response, treatment should be directed toward control of the symptoms.

5. Fire Fighting Measures

- Extinguishing Media** : Use fire extinguishing media appropriate for surrounding materials. Water spray, foam, dry powder or carbon dioxide.
- Specific Hazards Arising from the Chemical** : This material is non-combustible. If heated, corrosive and toxic vapors/gases may be formed. Hazardous combustion products include ammonia and phosphorous oxides.
- Special Fire Fight Proc** : Use self-contained breathing apparatus in positive pressure mode with full face mask when there is a possibility of exposure to smoke, fumes or hazardous decomposition products. Keep runoff out of water and sewers.

6. Accidental Release Measures

- Personal Precautions** : Avoid inhalation of vapors.
- Protective Equipment** : Chemical resistant and impervious clothes should be worn. Safety goggles must be worn at all times. Impervious apron and footwear.
- Emergency Procedures** : Do not discharge onto ground or into bodies of water. Prevent entry into drains.
- Methods and Materials for Containment and Cleanup** : Absorb with dry earth, clay, sand or other non-combustible material. Use a tool to scoop up soil or absorbed material and place into appropriately labeled waste container. Keep out of water ways.

7. Handling and Storage

- Precautions for Safe Handling** : Avoid contact with eyes, skin and clothing. Avoid breathing vapors or spray mists. Ensure there is access to eyewash and showers close to the workstation location.
- Conditions for Safe Storage** : Keep containers tightly closed and store in a cool, well-ventilated area. Keep away from heat and direct sunlight.

8. Exposure Controls / Personal Protection

- TLV/PEL** : Not specified
- Appropriate Engineering Controls** : General and/or local exhaust should be sufficient.
- Personal Protective Equipment** : Chemical resistant and impervious clothes should be worn. Safety goggles must be worn at all times. Impervious apron and footwear.

9. Physical and Chemical Properties

- Odor/Appearance** : Clear light blue liquid, strong vitamin odor.
- Flash Point, °F** : Not applicable
- Boiling Point, °F** : >100 Degrees C.
- Melting Point(Freezing point), °C** : Not applicable
- Vapor Pressure, mm Hg @ 20 °C** : Not determined
- Vapor Density** : Not determined
- Solubility in Water** : Soluble
- Molecular Formula** : Not applicable, formulated mixture.
- Density, g/mL @ 25 °C** : 1.187-1.207



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Evaporation Rate(Butyl Acetate = 1) : Same as water
Octanol/Water Partition Coefficient : No information found
pH : 5.1
Flammable Limits (approximate volume % in air) : Not applicable
Auto-ignition Temperature : Not applicable
Decomposition temperature : No information found

10. Stability and Reactivity

Reactivity : None
Chemical Stability : Stable
Hazardous Decomposition : May emit ammonia gas and phosphoric acid under fire conditions.
Products
Hazardous Polymerization : Will not occur
Conditions to Avoid : Avoid contact with alkaline materials.
Incompatible Materials : Avoid contact with alkaline materials.

11. Toxicological Information

Acute Toxicity (Oral LD50) : >5,010 mg/kg (rat). May be harmful if swallowed.
Acute Toxicity (Dermal LD50) : >2,010 mg/kg (rat). May be harmful in contact with skin.
Acute Toxicity Inhalation LC50 : No LC50 data available. May be harmful if inhaled.
Likely Routes of Exposure : Skin, eyes, inhalation
Skin Irritation : Causes mild skin irritation. Was slightly irritating (rabbits) in laboratory tests.
Eye Irritation : Causes eye irritation. Was mildly irritating to nonwashed eyes and minimally irritating in washed eyes (rabbits) in laboratory tests.
Skin Sensitization : May cause an allergic skin reaction. A sensitization reaction was produced in the test group at 0.10%v/v with 0.9% saline (Guinea pigs).
Carcinogenic : None currently known.
Chronic Effects : None currently known.
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 : Keep out of water ways.

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 DOT, IATA or IMDG.



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Transport Hazard Class : None
UN Identification Number : None
Packaging Group : None
Environmental Hazards : None
Transport in Bulk : None
Special Precautions for Transportation : None
Freight Classification : Fertilizing Compound, (Manufactured Fertilizer), Liquid, NOIBN (NMFC Item 68140, Sub 6, Class 70)

15. Regulatory Information

National Fire Protection Association Rating :

Health: 2 Fire: 0 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 : 26-June-2017