



Safety Data Sheet

Report Date 11-Jun-15

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1. Identification

Product Name : Nucleus ORTHO-PHOS 8-24-0
Synonyms : None
Product Use : Inorganic Fertilizers
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 : Prolonged skin contact may cause irritation.
Eye Irritation : May cause irritation to the eyes with contact. Severe irritation may occur with prolonged contact.
Acute Toxicity Oral : No LD50 available.
Acute Toxicity Dermal : No LD50 available.
Hazard Categories : Oral/Dermal/Inhalation Toxicity-5/5/5; Eye/Skin Irritation-2B/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 %
Plant nutrients derived from Ammonium Phosphate, Ammonium Alkanoates and Iron EDTA.	Proprietary	100.00
GUARANTEED ANALYSIS:		
Total Nitrogen (N): 8.00%		
8.00% Ammoniacal Nitrogen		
Available Phosphate (P2O5): 24.00%		
Iron (Fe): 0.10%		
0.10% Chelated Iron (Fe)		

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.

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.



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5. Fire Fighting Measures

- Extinguishing Media** : This is not a flammable liquid. Use extinguishing media suitable for underlying cause of fire.
- Specific Hazards Arising from the Chemical** : Ammonia or other toxic fumes may be evolved under fire conditions.
- Special Fire Fight Proc** : Wear self-contained breathing apparatus and full protective clothing. Avoid exposure to smoke and fumes. Contain any runoff.

6. Accidental Release Measures

- Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area.
- 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 spill area to prevent spread and runoff into lakes, ponds, drains, sewers and waterways.
- Methods and Materials for Containment and Cleanup** : Pump up spilled material and reuse, if uncontaminated. If contaminated, collect and place in suitable containers for disposal.

7. Handling and Storage

- Precautions for Safe Handling** : Keep locked up and out of reach of children. Do not contaminate water, food or feed by storage, handling or disposal. Keep container tightly closed. Do not allow water to be introduced into the contents of the container.
- Conditions for Safe Storage** : Store in original container only. Do not store near heat or open flame. Do not store with oxidizing agents or ammonium nitrate.

8. Exposure Controls / Personal Protection

- TLV/PEL** : No TLV or PEL established for mixture.
- Appropriate Engineering Controls** : General and/or local exhaust should be 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** : Clear, bright yellow liquid with ammonia odor.
- Flash Point, °F** : Not flammable
- Boiling Point, °F** : >212 Degrees F.
- Melting Point(Freezing point), °C** : <32 Degrees F.
- 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** : 1.267-1.297
- Evaporation Rate(Butyl Acetate = 1)** : Not determined
- Octanol/Water Partition Coefficient** : No information found
- pH** : 6.1 to 7.5



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Flammable Limits (approximate volume % in air) : Not flammable
Auto-ignition Temperature : Not applicable
Decomposition temperature : No information found

10. Stability and Reactivity

Reactivity : No information found
Chemical Stability : Stable
Hazardous Decomposition : May release ammonia, phosphorous oxides and other toxic fumes under fire conditions.
Hazardous Polymerization : Will not occur
Conditions to Avoid : Avoid contact with strong oxidizing agents.
Incompatible Materials : Avoid contact with strong oxidizing agents.

11. Toxicological Information

Acute Toxicity (Oral LD50) : No LD50 available. May be harmful if swallowed.
Acute Toxicity (Dermal LD50) : No LD50 available. May be harmful in contact with skin.
Acute Toxicity Inhalation LC50 : No LC50 available. May be harmful if inhaled.
Likely Routes of Exposure : Eyes, skin
Skin Irritation : Causes mild skin irritation.
Eye Irritation : Causes eye irritation.
Skin Sensitization : Not listed as a skin sensitizer.
Carcinogenic : Not listed by IARC, NTP or OSHA.
Chronic Effects : No information found
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 DOT or IATA. Consult IMDG for applicability.
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 : No information found



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Freight Classification : Fertilizing Compound, (Manufactured Fertilizer), Liquid, NOIBN (NMFC Item 68140, Sub 6, Class 70)

15. Regulatory Information

**National Fire Protection
Association Rating**

Health: 1 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 N
Pressure:
Fire: N
Reactive: N

16. Other Information

Data of Preparation/Revision : 11-June-2015