



Safety Data Sheet

Report Date 28-Apr-15

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1. Identification

Product Name : NUCLEUS ORTHO-PHOS NPK ZN 7-21-2
Synonyms : None
Product Use : Ammonium Phosphate Solution
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 and possible rash.
Eye Irritation : May cause irritation with contact. Prolonged exposure may cause severe irritation.
Acute Toxicity Oral : No information found
Acute Toxicity Dermal : No information found
Hazard Categories : Eye irritation - 2B; Skin irritation - 3; Oral/Dermal/Inhalation Toxicity - 5/5/5
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 ammonium phosphate, potassium hydroxide and zinc EDTA. GUARANTEED ANALYSIS: Total Nitrogen (N): 7.00% Available Phosphate (P ₂ O ₅): 21.00% Soluble Potash (K ₂ O): 2.00% Zinc (Zn): 0.10%	Proprietary	100.00

4. First Aid Measures

Eye : Flush eyes gently and thoroughly for at least 15 minutes with clean water, occasionally lifting the upper and lower eyelids. Seek medical attention.
Skin : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water. If redness or rash develops and persists, seek medical attention.
Inhalation : Move to fresh air immediately. Seek medical attention if needed.
Ingestion : Seek medical attention immediately. Drink 1 or 2 glasses of water to dilute, then induce vomiting. Do not give anything by mouth or induce vomiting if unconscious.
Indication of Immediate Medical Attention and Special Treatment Needed : Treat symptomatically.

5. Fire Fighting Measures



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- 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** : Avoid contact with skin and eyes. Keep unprotected and unnecessary personnel away from spill area.
- Protective Equipment** : Rubber or neoprene impervious gloves, splashproof goggles or faceshield, impervious apron and footwear. 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 out of reach of children. Do not store with food, feed or other material to be used or consumed by humans or animals. Do not contaminate water supplies, lakes, streams, ponds or drains.
- Conditions for Safe Storage** : Keep container tightly closed. May be stored in unheated area by protect from freezing.

8. Exposure Controls / Personal Protection

- TLV/PEL** : No information found
- Appropriate Engineering Controls** : General and/or local exhaust should be sufficient.
- Personal Protective Equipment** : Rubber or neoprene impervious gloves, splashproof goggles or faceshield, impervious apron and footwear. Eyewash and emergency shower should be available in work area.

9. Physical and Chemical Properties

- Odor/Appearance** : Clear very pale 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** : 1.257-1.277
- Evaporation Rate(Butyl Acetate = 1)** : Not determined
- Octanol/Water Partition Coefficient** : No information found
- pH** : 6.1-7.3
- Flammable Limits (approximate volume % in air)** : Not applicable
- Auto-ignition Temperature** : Not applicable



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Decomposition temperature : No information found

10. Stability and Reactivity

Reactivity : No information found
Chemical Stability : Stable
Hazardous Decomposition Products : 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 : Strong oxidizing agents.

11. Toxicological Information

Acute Toxicity (Oral LD50) : No information found
Acute Toxicity (Dermal LD50) : No information found
Acute Toxicity Inhalation LC50 : No information found
Likely Routes of Exposure : Eyes, skin
Skin Irritation : Prolonged skin contact may cause irritation and possible rash.
Eye Irritation : May cause irritation to the eyes with contact. Prolonged exposure may cause severe 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, IATA or IMDG.
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 : None
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: 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 Pressure: N
Fire: N
Reactive: N

16. Other Information

Data of Preparation/Revision : 28-April-2015