



Safety Data Sheet

Report Date 29-Apr-15

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1. Identification

Product Name : NUCLEUS 0-0-21
Synonyms : None
Product Use : Concentrated Potash Solution and Oxidized Sulfur
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 : Causes skin irritation
Eye Irritation : Causes serious 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 - 2A; Skin Irritation - 2

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

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Blend of plant nutrients, derived from potassium thiosulfate.	Proprietary	100.00
GUARANTEED ANALYSIS:		
Soluble Potash (K ₂ O):		21.00%
Sulfur (S):		13.00%

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.

Indication of Immediate Medical Attention and Special Treatment Needed : Treat symptomatically. If product is being mixed with pesticides and/or spray adjuvants, follow all precautionary statements on the accompanying product(s) labeling.



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5. Fire Fighting Measures

- Extinguishing Media** : Non-combustible liquid. Use extinguishing media suitable for underlying cause of fire.
- Specific Hazards Arising from the Chemical** : Heating this product will evolve sulfur dioxide.
- Special Fire Fight Proc** : Wear a positive-pressure, self-contained breathing apparatus and full protective clothing. Use water spray to keep fire-exposed containers cool.

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. No respirator normally required. Eyewash should be available in work area.
- Emergency Procedures** : Do not contaminate water supplies, lakes, streams, ponds, sewers or drains with spilled product.
- Methods and Materials for Containment and Cleanup** : Dike and contain spill. If uncontaminated, collect and reuse. If contaminated, absorb with an inert material, such as clay or sand. Collect and place absorbent material in chemical waste container for proper disposal. Wash spill area with water, then collect and place in same containers with absorbent.

7. Handling and Storage

- Precautions for Safe Handling** : Keep out of reach of children. Keep container tightly closed and do not allow water to be introduced into it. Do not contaminate water sources by cleaning of equipment or disposal of spray waste.
- Conditions for Safe Storage** : Store in a dry place. Temperatures below 25 Degrees F. will result in product crystallization. The product will readily reconstitute, however, with warmer temperatures and gentle agitation of the container.

8. Exposure Controls / Personal Protection

- TLV/PEL** : No TLV or PEL established for mixture.
- Appropriate Engineering Controls** : Local exhaust sufficient.
- Personal Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. No respirator normally required. Eyewash should be available in work area.

9. Physical and Chemical Properties

- Odor/Appearance** : Clear colorless liquid; no appreciable odor.
- Flash Point, °F** : Non-combustible
- Boiling Point, °F** : Not determined
- Melting Point(Freezing point), °C** : <32 Degrees F.
- Vapor Pressure, mm Hg @ 20 °C** : Not determined
- Vapor Density** : Not determined
- Solubility in Water** : Dispersible
- Molecular Formula** : Not applicable, formulated mixture.
- Density, g/mL @ 25 °C** : 1.360-1.395
- Evaporation Rate(Butyl Acetate = 1)** : Not determined



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Octanol/Water Partition Coefficient : No information found
pH : 7.0 to 8.0
Flammable Limits (approximate volume % in air) : Not applicable
Auto-ignition Temperature : Not applicable
Decomposition temperature : No information found

10. Stability and Reactivity

Reactivity : No information found
Chemical Stability : Stable
Hazardous Decomposition Products : Heating of the product will produce sulfur dioxide.
Hazardous Polymerization : Will not occur
Conditions to Avoid : None currently known
Incompatible Materials : Avoid contact with acids. Contact with acidic materials will cause the release of sulfur dioxide.

11. Toxicological Information

Acute Toxicity (Oral LD50) : No LD50 available. Ingestion may irritate the gastrointestinal tract. 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 and skin
Skin Irritation : Causes skin irritation.
Eye Irritation : Causes serious eye irritation.
Skin Sensitization : No data available.
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 : Do not contaminate water supplies, lakes, streams, ponds or drains.

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



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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)

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 : 29-April-2015