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1. Identification

| Product Name | : QHP + 0-3-0 |
|---------------------------------|--|
| Synonyms | : None |
| Product Use | : Bionutritional |
| | : 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 | |
|-----------------------|--|
| Skin Irritation | : May cause irritation |
| Eye Irritation | : May cause moderate to severe irritation |
| Acute Toxicity Oral | : No data available. Not classified as hazardous by ingestion. |
| Acute Toxicity Dermal | : No data available. Not classified as hazardous by skin absorption. |
| | |
| Hazard Categories | : Eye/Skin Irritation-2A/2 |
| | |
| Hazard Statement | : Causes serious eye irritation |
| | Causes skin irritation |
| | |

3. Composition / Information on Ingredients

| 7664-38-2). GUARANTEED ANALYSIS: Available Phosphate (P2O5): 3.00% |
|--|
|--|

4. First Aid Measures

| Еуе | : 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. |



Safety Data Sheet

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| Extinguishing Media | : Non-combustible product. Use extinguishing media appropriate for underlying cause of fire. |
|-------------------------------------|--|
| | : May emit oxides of carbon under fire conditions. |
| Chemical Special Fire Fight Proc | : Wear self-contained breathing apparatus and full protective clothing. |

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 | : Do not contaminate water supplies, lakes, streams, ponds or drains with this product. |
| Methods and Materials for Containment and Cleanup | : Contain spilled liquid, collect and reuse if uncontaminated. If contaminated, absorb with inert material, collect and place in suitable containers for proper 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 |
| Conditions for Safe Storage | allow water to be introduced into the contents of the container. |

8. Exposure Controls / Personal Protection

| - | : Phosphoric acid: PEL=1 mg/m3; TLV=3 mg/m3 |
|----------------------------------|--|
| Appropriate Engineering Controls | : Good general ventilation should be sufficient. |
| Personal Protective Equipment | : 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. |

9. Physical and Chemical Properties

| Odor/Appearance Flash Point, ⁰F | : Hazy, light to medium gold liquid. |
|------------------------------------|---------------------------------------|
| | |
| Boiling Point, ^o F | |
| Melting Point(Freezing point), °C | |
| Vapor Pressure, mm Hg @ 20 °C | |
| Vapor Density | : Not determined |
| Solubility in Water | : Solubel |
| Molecular Formula | : Not applicable, formulated mixture. |
| Density, g/mL @ 25 °C | : 1.03-1.05 |
| Evaporation Rate(Butyl Acetate = | : Not determined |
| 1) | |
| Octanol/Water Partition | : No information found |
| Coefficient | |
| pH | : 2.1 to 3.1 |
| Flammable Limits (approximate | : Not applicable |
| volume % in air) | |
| Auto-ignition Temperature | : Not applicable |
| Decomposition temperature | : No information found |



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10. Stability and Reactivity

| , | : Not normally reactive |
|--------------------------|--|
| Chemical Stability | : Stable |
| Hazardous Decomposition | : Oxides of carbon, boron and phosphorus and unknown materials. |
| Products | |
| Hazardous Polymerization | : Will not occur |
| Conditions to Avoid | : Extreme heat or freezing temperatures. Phosphoric acid may react with metals |
| | to liberate flammable hydrogen gas. |
| Incompatible Materials | : Strong oxidizing agents, alkaloid salts, metallic salts and strong acids. |

11. Toxicological Information

| Acute Toxicity (Oral LD50) | : | No data available. |
|--------------------------------|---|----------------------------------|
| Acute Toxicity (Dermal LD50) | : | No data available. |
| Acute Toxicity Inhalation LC50 | : | No data available. |
| Likely Routes of Exposure | : | Skin and eyes. |
| Skin Irritation | : | Causes skin irritation. |
| Eye Irritation | : | Causes serious eye irritation. |
| Skin Sensitization | : | Not listed as a skin sensitizer. |
| Carcinogenic | : | Not listed by IARC, NTP or OSHA. |
| 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 | : 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 Transport Hazard Class | : Not regulated by DOT, per 49 CFR 173.154(d). See Transportation Note. : None |
|---|---|
| UN Identification Number | : None |
| Packaging Group | : None |
| Environmental Hazards | : No information found |
| Transport in Bulk | : Reportable Quantity (RQ) for phosphoric acid = 5,000 lbs. |
| Special Precautions for | : May be regulated as a dangerous good if shipped by air (IATA) or water (IMDG). |
| Transportation | |
| 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: 1 | |
| | | Rating Level: | (4-Extreme. | 3-Hiah. | 2-Moderate, 1-Slight, | 0-Minimum |
| S.A.R.A Title III Hazard Classification (Yes/No) | | | (, | <u>.</u> , | ,,, | - |
| | Immediate(Acute) He | alth: Y | | | | |
| | Delayed (Chronic) He | | | | | |
| | Sudden Releas | | | | | |
| | Press | | | | | |
| | | Fire: N | | | | |
| | | tive: N | | | | |
| | | | | | | |

16. Other Information

Data of Preparation/Revision : 31-May-2015