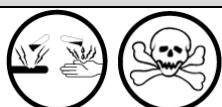


ROLF C. HAGEN INC., 20500 TRANSCANDA HWY,  
BAIE D'URFÉ, QUEBEC, H9X 0A2  
CANADA

|                          |
|--------------------------|
| <b>Nutrafin Test kit</b> |
| Phosphate Reagent #1     |
| A7841                    |

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| Section I. Product and Company Identification |   |
|---|---|
| Product name                                  | Nutrafin Phosphate Reagent #1                                     |
| CAS #   | Mixture   |
| Use   | To measure phosphate in aquarium containing fresh and saltwater   |
| Supplier                                      | Rolf C. Hagen Inc., 20 500 Trans Canada Hwy, Baie d'Urfé, H9X 0A2 |
| Emergency                                     | Call your local poison control center                             |

| Section II. Hazards Identification  |  |
|---|--|
| WHMIS   | Classification   |
|  | E : Corrosive material<br>D-1A: Materials causing immediate and serious toxic effects (Very toxic) |

| Section III. Composition and Information on Ingredients |           |            |           |
|---|-----------|------------|-----------|
| Ingredients   | Conc. (%) | CAS #      | EC #      |
| Sulfuric Acid   | 5-10      | 7664-93-9  | 321-639-5 |
| Ammonium Molybdate                                      | 1-5       | 12027-67-7 | 234-722-4 |

| Section IV. First Aid Measures |   |
|--------------------------------|---|
| Eye contact                    | Immediately flush with copious quantities of water. If victim wears contact lenses, remove them and continue rinsing for at least 30 minutes holding lids apart to ensure flushing of the entire surface. Repeat flushing if irritation persists. Seek immediate medical attention. |
| Skin contact                   | Remove the contaminated clothes and flush with plenty of water for a minimum of 20 minutes.   |
| Inhalation                     | Remove victim to fresh air. If symptoms persist get medical attention.  |
| Ingestion                      | Have conscious person drink several glasses of water. Never administered any liquids to an unconscious or convulsing person. Seek immediate medical attention.  |

| Section V. Fire Fighting Measures   |
|---|
| Suitable extinguishing media  |
| Use extinguishing media appropriate to surrounding fire conditions.   |
| Specific hazards arising from the chemical  |
| Under fire conditions, emits toxic fumes including sulfur oxides. Not normally a fire hazard. Water content of product prevent ignition.  |
| Special protective actions for fire-fighters  |
| Wear adequate personal protection to prevent contact with material or it combustion products. Self-contained breathing apparatus operated in a pressure demand or other positive pressure mode. |

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| <b>Section VI. Accidental Release Measures</b> |  |
|--|--|
| Person-related safety precautions              | Wear adequate personal protective equipment and clothing (e.g. chemical splash goggles, gloves, apron, rubber boots).  |
| Measures for environmental protection          | Prevent entry into drains, waterways or sewers.  |
| Measures for cleaning/collecting               | Use an inert absorbent material such as clay, sand, earth or vermiculite. Place in closed container for disposal. Clean the spill area after product complete removal. |

| <b>Section VII. Handling and Storage</b>  |  |
|---|--|
| Handle in accordance with good industrial hygiene and safety practices. Avoid contact with eyes, skin and clothing. After handling and before eating, drinking or smoking, wash hands and face thoroughly with soap and water. Prevent accidental contact with incompatible chemicals. Store away from bases and incompatible materials in cool, well ventilated place. Keep containers closed and in upper position. |  |

| <b>Section VIII. Exposure Controls and Personal Protection</b> |   |
|--|---|
| Protective clothing  | Apply the appropriate protective measures for safe handling of chemicals.<br>Rubber or plastic gloves. Chemical splash goggles or face mask.<br>Protective clothing, apron. Rubber boots. |
| Engineering controls   | General ventilation is recommended.   |

| <b>Section IX. Physical and Chemical Properties</b> |                    |
|---|--------------------|
| Appearance (physical state, color, etc.) / Odor     | Liquid, odorless   |
| Odor threshold                                      | Data not available |
| pH  | < 1                |
| Melting point / Freezing point                      | Data not available |
| Initial boiling point and boiling range             | Data not available |
| Flash point   | Not applicable     |
| Evaporation rate                                    | Data not available |
| Flammability (solid, gas)                           | Non-flammable      |
| Upper / Lower flammability or explosive limits      | Not applicable     |
| Vapor pressure                                      | Data not available |
| Vapor density                                       | Not applicable     |
| Liquid density                                      | Data not available |
| % Volatile  | > 85               |
| Specific gravity                                    | 1.1 at 20 °C       |

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|                                       |                    |
|---------------------------------------|--------------------|
| Solubility                            | Soluble in water   |
| Coefficient of Water/Oil distribution | Data not available |
| Auto-ignition temperature             | Not applicable     |
| Decomposition temperature             | Data not available |
| Viscosity                             | Data not available |

| <b>Section X. Stability and Reactivity</b> |  |
|--|--|
| Instability conditions                     | Stable under recommended storage conditions.   |
| Conditions to avoid                        | Avoid high heat, open flame, contamination and incompatible materials.                   |
| Materials to avoid                         | Incompatible with reducing agents, organic material, alkalis and finely powdered metals. |
| Hazardous decomposition products           | Thermal decomposition products are toxic and include sulfur oxides.                      |
| Hazardous polymerization                   | No risk of dangerous polymerization  |

| <b>Section XI. Toxicological Information</b> |  |
|--|--|
| <b>Route of exposure</b>                     | <b>Conclusion / Remarks</b>  |
| <b>Skin</b>                                  | Causes severe burns if the exposed area is not washed immediately.   |
| <b>Eye</b>                                   | Causes severe burns. Permanent blindness may occur.  |
| <b>Inhalation</b>                            | If inhaled may cause nose and throat irritation.<br>Sulfuric acid LC <sub>50</sub> (rat-vapor) acute: 255 ppm (4H)                                     |
| <b>Ingestion</b>                             | Swallowing this material causes burns to the mouth, throat and stomach. May cause death.<br>Sulfuric acid LD <sub>50</sub> (rat-oral) acute: 472 mg/kg |
| <b>Mutagenicity</b>                          | Not available  |
| <b>Carcinogenicity</b>                       | Not available  |
| <b>Reproductive toxicity</b>                 | Not available  |
| <b>STOT-single exposure</b>                  | Not available  |
| <b>STOT-repeated exposure</b>                | Not available  |
| <b>Aspiration hazard</b>                     | Not available  |
| <b>Acute toxicity</b>                        | Corrosive! Dangerous by ingestion, inhalation or skin absorption.  |
| <b>Chronic Overexposure</b>                  | No data are available for chronic inhalation of this product.  |

| <b>Section XII. Ecological Information</b> |               |
|--|---------------|
| Ecotoxicity                                | Not available |
| Mobility                                   | Not available |
| Persistence and Degradability              | Not available |



# MATERIAL SAFETY DATA SHEET

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|                           |               |
|---------------------------|---------------|
| Bioaccumulation potential | Not available |
|---------------------------|---------------|

| <b>Section XIII. Disposal Considerations</b> |  |
|--|--|
| Disposal recommendations                     | Dispose of in accordance with federal, provincial and local regulations.   |
| Disposal of damaged packaging                | If the container contains residue of a hazardous product, follow all MSDS and label precautions even after container is emptied. |
| Regulatory disposal information              | Data not available   |

| <b>Section XIV. Transport Information</b> |  |
|---|--|
| T.D.G. Classification                     | UN2796, Acide sulfurique PG: II, Class 8 |

| <b>Section XV. Regulatory Information</b>  |
|--|
| <b>Exposure Limits</b><br>Sulfuric Acid (CAS 7664-93-9)<br><b>ACGIH TLV-STEL:</b> 3 mg/m <sup>3</sup><br><b>ACGIH TLV-TWA:</b> 1 mg/m <sup>3</sup><br>Ammonium Molybdate, as Molybdenum (CAS 12027-67-7)<br><b>ACGIH TLV-TWA:</b> 5 mg/m <sup>3</sup><br><b>OSHA PEL 8H TWA:</b> 5 mg/m <sup>3</sup> |

| <b>Section XVI. Other information</b>  |
|--|
| While the company believes the data set forth herein are accurate as the date hereof, the company makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration and verification. |

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| Prepared by Rolf C. Hagen Inc.<br>(514) 457-0914 | Validated: December 3 <sup>rd</sup> , 2014 |
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