Mixed Molybdate Reagent
Safety Data Sheet
According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations
Revision Date: 02/22/2016          Date of issue: 01/15/2016
Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier
Product Form: Mixture
Product Name: Mixed Molybdate Reagent
Synonyms: RED Reagent Cartridge

1.2. Intended Use of the Product
Use of the substance/mixture: For Use With Sea-Bird Coastal Cycle Sensors.

1.3. Name, Address, and Telephone of the Responsible Party
Company
WET Labs
620 Applegate Street
Philomath, OR 97370
T:541-929-5650
wetlabs.com

1.4. Emergency Telephone Number
Emergency Number: CHEMTREC 1-800-424-9300 North America; 1-703-527-3887 International

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture
GHS-US classification
Skin Irrit. 2 H315
Eye Irrit. 2A H319

2.2. Label Elements
GHS-US Labeling
Hazard Pictograms (GHS-US)

Signal Word (GHS-US) : Warning
Hazard Statements (GHS-US) : H315 - Causes skin irritation.
                            : H319 - Causes serious eye irritation.
Precautionary Statements (GHS-US): P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
                                : P280 - Wear protective gloves, protective clothing, and eye protection.
                                : P302+P352 - If on skin: Wash with plenty of water.
                                : P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes.
                                : P313 - Specific treatment (see section 4 on this SDS).
                                : P332+P313 - If skin irritation occurs: Get medical advice/attention.
                                : P337+P313 - If eye irritation persists: Get medical advice/attention.
                                : P362+P364 - Take off contaminated clothing and wash it before reuse.

2.3. Other Hazards
Exposure may aggravate pre-existing eye, skin, or respiratory conditions. Proprietary Ingredient A may cause spontaneous combustion when in contact with organic materials.

2.4. Unknown Acute Toxicity (GHS-US)
No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary Ingredient A</td>
<td>(CAS No) Proprietary</td>
<td>Proprietary</td>
<td>Skin Corr. 1A, H314</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 3, H402</td>
</tr>
</tbody>
</table>
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*The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200].

Full text of H-phrases; see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid Measures After Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

First-aid Measures After Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/Injuries: Causes serious eye irritation. Causes skin irritation.

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: None expected under normal conditions of use. Suspected human carcinogen contained in strong inorganic acid mists.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid breathing (vapor, mist, spray). Avoid all contact with skin, eyes, or clothing.

6.1.1. For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).


6.1.2. For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.
6.3. Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection. See Section 13, Disposal Considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Handle in accordance with standard industrial practices, and ensure appropriate ventilation. Avoid all contact with skin, eyes, clothing. Do not release into the environment.

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Products: Strong acids, strong bases, strong oxidizers, water reactive materials.

7.3. Specific End Use(s)

For Use With Sea-Bird Coastal Cycle Sensors.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

<table>
<thead>
<tr>
<th>Proprietary Ingredient A (Proprietary)</th>
<th>USA ACGIH</th>
<th>USA ACGIH chemical category</th>
<th>USA NIOSH</th>
<th>USA IDLH (mg/m³)</th>
<th>USA OSHA</th>
<th>USA OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ACGIH TWA (mg/m³)</td>
<td>Suspected Human Carcinogen contained in strong inorganic acid mists</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>US IDLH (mg/m³)</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.2 mg/m³ (thoracic fraction)</td>
<td></td>
<td>1 mg/m³</td>
<td>15 mg/m³</td>
<td>1 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.


Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State: Liquid

Appearance: No data available

Odor: No data available

Odor Threshold: No data available
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- **pH**: 1 - 2 (Estimated)
- **Evaporation Rate**: No data available
- **Melting Point**: No data available
- **Freezing Point**: No data available
- **Boiling Point**: No data available
- **Flash Point**: No data available
- **Auto-ignition Temperature**: No data available
- **Decomposition Temperature**: No data available
- **Flammability (solid, gas)**: No data available
- **Vapor Pressure**: No data available
- **Relative Vapor Density at 20 °C**: No data available
- **Relative Density**: No data available
- **Solubility**: No data available
- **Partition Coefficient: N-Octanol/Water**: No data available
- **Viscosity**: No data available

9.2. **Other Information**
No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. **Reactivity**: Hazardous reactions will not occur under normal conditions.
10.2. **Chemical Stability**: Stable under recommended handling and storage conditions (see section 7).
10.3. **Possibility of Hazardous Reactions**: Hazardous polymerization will not occur.
10.4. **Conditions to Avoid**: Direct sunlight, extremely high or low temperatures, and incompatible materials.
10.5. **Incompatible Materials**: Strong acids, strong bases, strong oxidizers, water reactive materials.
10.6. **Hazardous Decomposition Products**: Thermal decomposition generates: Sulfur oxides. Sulfur oxides are toxic.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. **Information On Toxicological Effects**

**Acute Toxicity**: Not classified

<table>
<thead>
<tr>
<th>Proprietary Ingredient B (Proprietary)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Oral Rat</td>
<td>115 mg/kg</td>
<td></td>
</tr>
<tr>
<td>ATE (Dust/Mist)</td>
<td>1.50 mg/l/4h</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proprietary Ingredient A (Proprietary)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Oral Rat</td>
<td>2140 mg/kg</td>
<td></td>
</tr>
<tr>
<td>LC50 Inhalation Rat</td>
<td>510 mg/m³ (Exposure time: 2 h)</td>
<td></td>
</tr>
</tbody>
</table>

**Skin Corrosion/Irritation**: Causes skin irritation. (Specific Concentration Limits Proprietary Ingredient A: Skin Irrit. 2; H315: 5% ≤ C < 15%).

**pH**: 1 - 2

**Serious Eye Damage/Irritation**: Causes serious eye irritation (Specific Concentration Limits Proprietary Ingredient A: Eye Irrit. 2; H319: 5% ≤ C < 15%).

**pH**: 1 - 2

**Respiratory or Skin Sensitization**: Not classified

**Germ Cell Mutagenicity**: Not classified

**Carcinogenicity**: Not classified

<table>
<thead>
<tr>
<th>Proprietary Ingredient A (Proprietary)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC group</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**OSHA Hazard Communication Carcinogen List**: In OSHA Hazard Communication Carcinogen list.

**Reproductive Toxicity**: Not classified

**Specific Target Organ Toxicity (Single Exposure)**: Not classified

**Specific Target Organ Toxicity (Repeated Exposure)**: Not classified

**Aspiration Hazard**: Not classified

**Symptoms/Injuries After Inhalation**: Prolonged exposure may cause irritation.

**Symptoms/Injuries After Skin Contact**: Redness, pain, swelling, itching, burning, dryness, and dermatitis.
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Symptoms/Injuries After Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.
Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.
Chronic Symptoms: None expected under normal conditions of use.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecology - General: Not classified.

| Proprietary Ingredient B (Proprietary) | LC50 Fish 1 | 12 mg/l |
| Proprietary Ingredient A (Proprietary) | LC50 Fish 1 | 500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static]) |
| | LC 50 Fish 2 | 42 mg/l (Exposure time: 96 h - Species: Gambusia affinis [static]) |

12.2. Persistence and Degradability
Mixed Molybdate Reagent
Persistence and Degradability: Not established.

12.3. Bioaccumulative Potential
Mixed Molybdate Reagent
Bioaccumulative Potential: Not established.

| Proprietary Ingredient A (Proprietary) | BCF fish 1 | (no bioaccumulation) |

12.4. Mobility in Soil
No additional information available

12.5. Other Adverse Effects
Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.
Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

SECTION 14: TRANSPORT INFORMATION

14.1. In Accordance with DOT: Not regulated for transport
14.2. In Accordance with IMDG: Not regulated for transport
14.3. In Accordance with IATA: Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations
Mixed Molybdate Reagent
SARA Section 311/312 Hazard Classes: Immediate (acute) health hazard
Proprietary Ingredient A (Proprietary)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on the United States SARA Section 302
Subject to reporting requirements of United States SARA Section 313
SARA Section 302 Threshold Planning Quantity (TPQ): 1000
SARA Section 311/312 Hazard Classes: Immediate (acute) health hazard
Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting: 1.0 % (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)

15.2 US State Regulations
Proprietary Ingredient A (Proprietary)
U.S. - California - Proposition 65 - Carcinogens List: WARNING: This product contains chemicals known to the State of California to cause cancer.
Proprietary Ingredient B (Proprietary)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
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U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Proprietary Ingredient A (Proprietary)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 02/22/2016
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

<table>
<thead>
<tr>
<th>Acute Tox. 3 (Oral)</th>
<th>Acute toxicity (oral) Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4 (Inhalation:dust,mist)</td>
<td>Acute toxicity (inhalation:dust,mist) Category 4</td>
</tr>
<tr>
<td>Aquatic Acute 2</td>
<td>Hazardous to the aquatic environment - Acute Hazard Category 2</td>
</tr>
<tr>
<td>Aquatic Acute 3</td>
<td>Hazardous to the aquatic environment - Acute Hazard Category 3</td>
</tr>
<tr>
<td>Aquatic Chronic 2</td>
<td>Hazardous to the aquatic environment - Chronic Hazard Category 2</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation Category 1</td>
</tr>
<tr>
<td>Eye Irrit. 2A</td>
<td>Serious eye damage/eye irritation Category 2A</td>
</tr>
<tr>
<td>Skin Corr. 1A</td>
<td>Skin corrosion/irritation Category 1A</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation Category 2</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>H401</td>
<td>Toxic to aquatic life</td>
</tr>
<tr>
<td>H402</td>
<td>Harmful to aquatic life</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)