Material Safety Data Sheet

Section 1. Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Methyl Red, Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer</td>
<td>EMD Chemicals Inc.</td>
</tr>
<tr>
<td>P.O. Box 70</td>
<td></td>
</tr>
<tr>
<td>480 Democrat Road</td>
<td></td>
</tr>
<tr>
<td>Gibbstown, NJ 08027</td>
<td></td>
</tr>
<tr>
<td>Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries, Inc. or EM Science, Division of EM Industries, Inc.</td>
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<table>
<thead>
<tr>
<th>Product Code</th>
<th>MX1405</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective Date</td>
<td>3/10/2006</td>
</tr>
</tbody>
</table>

For More Information Call
856-423-6300 Technical Service
Monday-Friday: 8:00 AM - 5:00 PM

In Case of Emergency Call
800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

Synonym                Acid Red 2
Material Uses          Analytical reagent.
Chemical Family        Dye

Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>% by Weight</th>
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<tbody>
<tr>
<td>Methyl Red</td>
<td>493-52-7</td>
<td>100</td>
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</table>

Section 3. Hazards Identification

Physical State and Appearance
Solid. (Powdered solid.)

Emergency Overview
CAUTION!
Handling care generally in keeping with safe laboratory practices is recommended.

Routes of Entry
Absorbed through skin. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects

- **Eyes**: No known acute effects of this product resulting from eye contact.
- **Skin**: No known acute effects of this product resulting from skin contact.
- **Inhalation**: No known acute effects of this product resulting from inhalation.
- **Ingestion**: No known acute effects of this product resulting from ingestion.

Potential Chronic Health Effects

- **Carcinogenic Effects**: This material is not known to cause cancer in animals or humans.

  Additional information See Toxicological Information (section 11)

Medical Conditions Aggravated by Overexposure
Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4. First Aid Measures

**Eye Contact**: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

**Skin Contact**: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

**Inhalation**: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 5. Fire Fighting Measures

Flammability of the Product

May be combustible at high temperature.

Auto-ignition Temperature

Not available.

Flash Points

Not available.

Flammable Limits

Not available.

Products of Combustion

These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).

Fire Hazards in Presence of Various Substances

Not available.

Explosion Hazards in Presence of Various Substances

Risks of explosion of the product in presence of static discharge: No.

Risks of explosion of the product in presence of mechanical impact: No.

Fire Fighting Media and Instructions

SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Protective Clothing (Fire)

Be sure to use an approved/certified respirator or equivalent.

Special Remarks on Fire Hazards

Not available.

Special Remarks on Explosion Hazards

Not available.

Section 6. Accidental Release Measures

Small Spill and Leak

Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill and Leak

Use a shovel to put the material into a convenient waste disposal container.

Spill Kit Information

No specific spill kit required for this product.

Section 7. Handling and Storage

Handling

Avoid breathing dust. Do not ingest. Avoid contact with skin and eyes.

Storage

Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection

Eyes

Safety glasses.

Body

Lab coat.

Respiratory

Not applicable.

Hands

Not applicable.

Feet

Not applicable.

Protective Clothing (Pictograms)

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name

Methyl Red

Exposure Limits

Not available.
Section 9. Physical and Chemical Properties

Odor Not available.
Color Red.
Physical State and Appearance Solid. (Powdered solid.)
Molecular Weight 269.33 g/mole
Molecular Formula C15-H15-N3-O2
pH Not applicable.
Boiling/Condensation Point Not available.
Melting/Freezing Point Not available.
Specific Gravity Not available.
Vapor Pressure Not available.
Vapor Density Not available.
Odor Threshold Not available.
Evaporation Rate Not available.
LogKow Not available.
Solubility Insoluble in water.

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Conditions of Instability Not available.
Incompatibility with Various Substances Reactive with reducing agents.
Rem/Incompatibility Not available.
Hazardous Decomposition Products Not available.
Hazardous Polymerization Will not occur.

Section 11. Toxicological Information

RTECS Number: Methyl Red DG8960000
Toxicity LD50: Not available.
LC50: Not available.
Chronic Effects on Humans Not available.
Acute Effects on Humans Not available.
Synergetic Products (Toxicologically) Not available.
Irritancy Draize Test: Not available.
Sensitization Not available.
Carcinogenic Effects This material is not known to cause cancer in animals or humans.
Toxicity to Reproductive System Not available.
Teratogenic Effects Not available.
Mutagenic Effects Tests on laboratory animals for mutagenic effects are cited in Registry of Toxic Effects of Chemical Substances (RTECS).

Section 12. Ecological Information

Ecotoxicity Not available.
BOD5 and COD Not available.
Toxicity of the Products The product itself and its products of degradation are not toxic.
Section 13. Disposal Considerations

**EPA Waste Number**
Not available.

**Treatment**
Material does not have an EPA Waste Number and is not a listed waste, however consultation with a permitted waste disposal site (TSD) should be accomplished. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations.

Section 14. Transport Information

**DOT Classification**
Proper Shipping Name: CHEMICALS, N.O.S.
RQ: Not applicable.

**TDG Classification**
Not available.

**IMO/IMDG Classification**
Proper Shipping Name: CHEMICALS, N.O.S.
RQ: Not applicable.

**ICAO/IATA Classification**
Proper Shipping Name: CHEMICALS, N.O.S.
RQ: Not applicable.

Section 15. Regulatory Information

**U.S. Federal Regulations**
TSCA 8(b) inventory: Methyl Red
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: No products were found.
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.
SARA 313 toxic chemical notification and release reporting: No products were found.
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean air act (CAA) 112 accidental release prevention: No products were found.
Clean air act (CAA) 112 regulated flammable substances: No products were found.
Clean air act (CAA) 112 regulated toxic substances: No products were found.

**WHMIS (Canada)**
Not controlled under WHMIS (Canada).

**CEPA DSL**
This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

International Regulations

**EINECS**
Methyl Red 207-776-1

**DSCL (EEC)**
This product is not classified according to the EU regulations.

**International Lists**
Australia (NICNAS): Methyl Red
China: Methyl Red
Korea (TCCL): Methyl Red
Philippines (RA6969): Methyl Red
China: Methyl Red

**State Regulations**
No products were found.
California prop. 65: No products were found.

Section 16. Other Information

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<table>
<thead>
<tr>
<th>National Fire Protection Association (U.S.A.)</th>
<th>Fire Hazard</th>
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<tbody>
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The statements contained herein are based upon technical data that EMD Chemicals Inc. believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment. EMD CHEMICALS INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, WITH RESPECT TO THE INFORMATION HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS.