1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Catalog Number: 151128
Product name: FLAVIN MONONUCLEOTIDE MONOSODIUM SALT DIHYDRATE PRACTICAL GRADE

Supplier: MP Biomedicals, LLC
Parc d'Innovation
BP 50067
67402 ILLKIRCH CEDEX
France

Emergency telephone number: "n° ORFILA" (01-45-42-59-59)

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Weight %</th>
<th>EC No.</th>
<th>Classification</th>
<th>Notes</th>
<th>Annex No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAVIN MONONUCLEOTIDE MONOSODIUM SALT DIHYDRATE</td>
<td>130-40-5</td>
<td>&gt; 25%</td>
<td>204-988-6</td>
<td>--</td>
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</tbody>
</table>

3. HAZARDS IDENTIFICATION

Indication of Danger:
No declaration according to 67/548/EWG

4. FIRST AID MEASURES

General advice: In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Inhalation: Move to fresh air. Call a physician immediately.

Skin contact: Rinse immediately with plenty of water and seek medical advice.

Ingestion: Do not induce vomiting without medical advice.

Eye contact: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use dry chemical, CO2, water spray or "alcohol" foam

Specific hazards: Burning produces irritant fumes.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Flash point: Not determined
Autoignition temperature: Not determined

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment.
Environmental precautions: Prevent product from entering drains.
Methods for cleaning up: Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Storage: 0°C

Handling: Use only in area provided with appropriate exhaust ventilation.
Safe handling advice: Wear personal protective equipment.
Incompatible products: Oxidising and spontaneously flammable products

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures: Ensure adequate ventilation.
Respiratory protection: Breathing apparatus needed only when aerosol, vapor or dust is formed.
Skin and body protection: Usual safety precautions while handling the product will provide adequate protection against this potential effect.
Eye protection: Safety glasses with side-shields
Hand protection: Gloves

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Powder
Formula: C17H20N4O9PNa • 2H2O
Molecular weight: 514.4
Melting point/range: No data available at this time.
Boiling point/range: No data available at this time.
Density: No data available
Vapor pressure: No data available
Evaporation rate: No data available
Vapor density: No data available
Solubility (in water): No data available
Flash point: Not determined
Autoignition temperature: Not determined
10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.
Polymerization: None under normal processing.
Hazardous decomposition products: Nitrogen oxides (NOx)/ammonia/CN-, Potassium oxides (K2O)
Materials to avoid: Strong oxidising agents
Conditions to avoid: Exposure to air or moisture over prolonged periods.

11. TOXICOLOGICAL INFORMATION

Product Information
Acute toxicity

<table>
<thead>
<tr>
<th>Components</th>
<th>RTECS Number:</th>
<th>Selected LD50s and LC50s</th>
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<tbody>
<tr>
<td>FLAVIN MONONUCLEOTIDE MONOSODIUM SALT DIHYDRATE</td>
<td>Not Available</td>
<td>Not Determined</td>
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</table>

Chronic toxicity: Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness.

Local effects: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Specific effects: May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting, headache.

Primary irritation: No data is available on the product itself.
Carcinogenic effects: No data is available on the product itself.
Mutagenic effects: No data is available on the product itself.
Reproductive toxicity: No data is available on the product itself.

12. ECOLOGICAL INFORMATION

Mobility: No data available
Bioaccumulation: No data available
Ecotoxicity effects: No data available
Aquatic toxicity: May cause long-term adverse effects in the aquatic environment.

<table>
<thead>
<tr>
<th>Components</th>
<th>U.S. DOT - Appendix B - Marine Pollutan</th>
<th>U.S. DOT - Appendix B - Severe Marine Pollutants</th>
<th>United Kingdom - The Red List:</th>
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</thead>
<tbody>
<tr>
<td>FLAVIN MONONUCLEOTIDE MONOSODIUM SALT DIHYDRATE</td>
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<tr>
<th>Components</th>
<th>Germany VCI (WGK) - Ecotoxicity - Fish Species Data</th>
<th>World Health Organization (WHO) - Drinking Water</th>
<th>Ecotoxicity - Freshwater Algae Data</th>
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<tr>
<th>Components</th>
<th>Ecotoxicity - Microtox Data</th>
<th>Ecotoxicity - Water Flea Data</th>
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<tr>
<th>Components</th>
<th>EPA - ATSDR Priority List</th>
<th>California - Priority Pollutants</th>
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</table>
13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.

Contaminated packaging: Do not re-use empty containers

14. TRANSPORT INFORMATION

UN/Id No: Not a dangerous good.

ADR/RID
Proper shipping name: Not Regulated

IMDG/IMO
Proper shipping name: Not Regulated

ICAO/IATA
Proper shipping name: Not Regulated

15. REGULATORY INFORMATION

Indication of Danger:
No declaration according to 67/548/EWG

Classification according to VbF: -

16. OTHER INFORMATION

Prepared by: Health & Safety
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End of Safety Data Sheet