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

Catalog Number: 157639
Product name: 5,6-DICHLOROBENZIMIDAZOLE RIBOSIDE
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>5,6-DICHLOROBENZIMIDAZOLE RIBOSIDE</td>
<td>53-85-0</td>
<td>&gt; 25%</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</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
STORE UNDER NITROGEN

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: C12H12Cl2N2O4
Molecular weight: 319.2
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:**
Chloride/Hydrochloric acid, Nitrogen oxides (NOx)/ammonia/CN-

**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>
</tr>
</thead>
<tbody>
<tr>
<td>5,6-DICHLOROBENZIMIDAZOLE RIBOSIDE</td>
<td>DD7310000</td>
<td>Not Determined</td>
</tr>
</tbody>
</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.

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### 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 Pollutant</th>
<th>U.S. DOT - Appendix B - Severe Marine Pollutants</th>
<th>United Kingdom - The Red List:</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,6-DICHLOROBENZIMIDAZOLE RIBOSIDE</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Germany VCI (WGK)</th>
<th>World Health Organization (WHO) - Drinking Water</th>
<th>Ecotoxicity - Fish Species Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,6-DICHLOROBENZIMIDAZOLE RIBOSIDE</td>
<td>Not Listed</td>
<td>Not Listed</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Ecotoxicity - Freshwater Algae Data</th>
<th>Ecotoxicity - Microtox Data</th>
<th>Ecotoxicity - Water Flea Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,6-DICHLOROBENZIMIDAZOLE RIBOSIDE</td>
<td>Not Listed</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>EPA - ATSDR Priority List</th>
<th>EPA - HPV Challenge Program Chemical List</th>
<th>California - Priority Toxic Pollutants</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,6-DICHLOROBENZIMIDAZOLE RIBOSIDE</td>
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<td>Not Listed</td>
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</tbody>
</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

<table>
<thead>
<tr>
<th>Components</th>
<th>EU EINECS List -</th>
<th>Germany TA-Luft List -</th>
<th>Germany VCI (WGK)</th>
<th>Switzerland Giftliste:</th>
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</thead>
<tbody>
<tr>
<td>5,6-DICHLOROBENZIMIDAZOLE RIBOSIDE</td>
<td>Not Present</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

**Classification according to VbF:** -

### 16. OTHER INFORMATION

**Prepared by:** Health & Safety
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End of Safety Data Sheet