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

Catalog Number: 101291
Product name: CASEIN HYDROLYSATE ACID
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>CASEIN HYDROLYSATE ACID</td>
<td>N/A</td>
<td>&gt; 25%</td>
<td>--</td>
<td>--</td>
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<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:** ROOM TEMPERATURE
**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:** Not applicable
**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:** Thermal decomposition can lead to release of irritating gases and vapours such as carbon oxides.
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>CASEIN HYDROLYSATE ACID</td>
<td>Not Available</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.

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>
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</thead>
<tbody>
<tr>
<td>CASEIN HYDROLYSATE ACID</td>
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<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>
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</thead>
<tbody>
<tr>
<td>CASEIN HYDROLYSATE ACID</td>
<td>Not Listed</td>
<td>Not Listed</td>
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<tr>
<th>Components</th>
<th>Ecotoxicity - Freshwater Algae Data</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>EPA - HPV Challenge Program Chemical List</th>
<th>California - Priority Toxic Pollutants</th>
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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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<tbody>
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<td>Not Present</td>
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Classification according to VbF: -

16. OTHER INFORMATION

Prepared by: Health & Safety
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End of Safety Data Sheet