Material Safety Data Sheet

According to Regulations:
(EC) No 1907/2006
OSHA 29 CFR 1910.1200

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

Product name
LONG®R³IGF-I, Liquid product (LP)

Description
Aqueous preparation of a recombinant analog of human Insulin-like Growth Factor-I

CAS number
143045-27-6

Use of the substance/preparation
Laboratory chemical. Manufacture of substances.

Company/Undertaking
Repligen Sweden AB
S:t Lars väg 47
P.O. Box 965
SE-220 09 Lund
Sweden
+ 46 (0)46 280 17 00

Emergency Telephone Number
Europe: + 46 (0)707 54 98 23
USA: + 1-800-622-2259

2. HAZARDS IDENTIFICATION

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008 or OSHA 29 CFR 1910.1200

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>% (w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog of human insulin-like growth factor IGF-I</td>
<td>143045-27-6</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Acetic acid</td>
<td>64-19-7</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt; 98</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

**Inhalation**
If dust is inhaled, remove from contaminated area. Encourage patient to blow nose to ensure clear breathing passage. If irritation or discomfort persists seek medical attention.

**Skin contact**
In case of contact with skin, wash the affected area with soap and water. Should irritation occur, contact a physician.

**Eye contact**
In case of contact with eyes, flush thoroughly with water and contact a physician.

**Ingestion**
In case of accidental swallowing, rinse the mouth with fresh water provided the person is conscious. Contact a physician.

5. FIRE-FIGHTING MEASURES

**Protection against Fire and Explosions**
No special requirements

**Suitable extinguishing media**
Water spray, dry chemical powder or appropriate foam. Wear self-contained breathing apparatus and protective clothing. Avoid contact with skin or eyes

**Unsuitable extinguishing media**
None

**Hazardous combustion products**
None

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
For personal protection see section 8

**Methods for cleaning up**
Carefully sweep up powder, place in a closed container and hold for waste disposal. Avoid raising dust. Wash area thoroughly after clean-up is complete.

7. HANDLING AND STORAGE

**Handling**
Avoid generating and breathing dust. Limit all unnecessary personal contact. Standard laboratory practices recommended.

**Storage**
Store at 2 - 8°C

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Eye protection**
Safety glasses or goggles required.

**Hand Protection**
Wear general protective gloves, e.g. light weight rubber gloves.

**General hygiene considerations**
Handle in accordance with good industrial hygiene and safety practices.
9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance  Clear liquid
pH  3
Solubility  Mixes with water.

10. STABILITY AND REACTIVITY

Reactivity  No data available.
Chemical stability  This material is stable under normal conditions of use
Conditions to avoid  No known
Incompatible materials  No known
Hazardous Decomposition Products  No known hazardous decomposition products

11. TOXICOLOGICAL INFORMATION

Acute toxicity  No known significant effect.
Irritation  May be irritating to skin and eye
Sensitization  No known significant effect
Carcinogenicity  No known significant effect
Mutagenicity  No known significant effect
Teratogenicity  No known significant effect

12. ECOLOGICAL INFORMATION

Ecotoxicity  The substance is readily biodegradable
EC_{50} (Daphnia magna) > 100 mg/liter/48 h

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method  All waste must be handled in accordance with local, state and federal regulations.

14. TRANSPORT INFORMATION

Transport Regulations  The preparation is not subject to current regulations for transport of hazardous materials according to IATA, IMDG, DOT or ADR/RID/ADN

15. REGULATORY INFORMATION

The preparation is not classified as hazardous according to OSHA/SARA/CWA/CAA.
The preparation is not classified as hazardous according to (EC) No. 1272/2008

16. OTHER INFORMATION

Disclaimer  The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification.