

1. Identification of the substance/mixture

Designation : **GlucaGen®**

Synonyms : Glucagon (rDNA origin) for Injection

Identified uses : **Pharmaceutical Product**

Company : **Boehringer-Ingelheim Pharmaceuticals, Incorporated
900 Ridgebury Road
Ridgefield, Connecticut
06877-0368**

Emergency Contact Number : **800-424-9300 CHEMTREC Emergency Phone Number**

Routine Contact Number : (203) 778-7759

2. Hazards Identification

Classification:

This product is a non-hazardous mixture of single components and need not be labelled according to Globally Harmonized System. May form combustible dust concentrations in air.

3. Composition/Information on Ingredients

Hazardous ingredients

Chemical name	Classification	GHS classification	Concentration
Peptide			0.93 %
Molecular formula: C153-H225-N43-O49-S			

Chemical name	Classification	GHS classification	Concentration
Lactose Monohydrate			99.07 %
Molecular formula: C12-H22-O11 x H2O		CAS-No.	5989-81-1
Molecular weight: 360.31			

4. First-aid Measures

General advice : Remove from exposure, lie down. Immediately remove contaminated clothing. If danger of loss of consciousness, place patient in recovery position and transport accordingly. Apply artificial respiration if necessary. First aid personnel should pay attention to their own safety.

Eye contact : Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately.

Skin contact : Wash off immediately with plenty of water. Call a physician immediately.

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

Ingestion : Rinse mouth. Drink plenty of water. Call a physician immediately.

Notes to physician

Symptoms : Tachycardia, Nausea, Vomiting

Treatment : Observe the summary of product characteristics of proprietary medicinal products

5. Fire-fighting Measures

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment., Water, Dry chemical, Foam, Carbon dioxide (CO₂)
- Hazards during fire-fighting : Product itself is non-combustible.
In case of fire and/or explosion do not breathe fumes., Can be released in case of fire:, Carbon oxides, Nitrogen oxides (NO_x), Sulfur oxides
- Protective equipment for fire-fighting : Self-contained breathing apparatus (EN 133) complete suit protecting against chemicals
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

6. Accidental Release Measures

- Personal precautions : Wear personal protective equipment. Refer to protective measures listed in sections 7 and 8. Keep people away from and upwind of spill/leak. Ensure adequate ventilation.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.
- Methods for cleaning-up or taking-up : Cleaning operations should be carried out only while wearing breathing apparatus. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Non-sparking tools should be used. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). For large amounts: Dampen, pick up mechanically and dispose of. For residues: Use approved industrial vacuum cleaner for removal. Pack in tightly closed containers for disposal.
- Additional information : Never return spills in original containers for re-use.

7. Handling and Storage

- Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Minimize dust generation and accumulation. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Breathing must be protected when large quantities are decanted without local exhaust ventilation. Keep container closed when not in use.
- Hints for protection against fire and explosion : Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Avoid dust formation.
- Hygienic measures : General industrial hygiene practice. Wash hands and face before breaks and immediately after handling the product. Keep working clothes separately.

Storage

Requirements for storage rooms and vessels	:	Keep tightly closed in a dry and cool place. Keep in a well-ventilated place. Protect from heat and direct sunlight. Joint less smooth floor.
Advice on storage compatibility	:	Keep away from food, drink and animal feed. Advice on Segregation
Storage class	:	Combustible Solids

8. Exposure controls/personal protections**Exposure controls**

Advice on system design	:	It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.
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Personal protective equipment

Respiratory protection	:	Use NIOSH approved respiratory protection if exposed to vapors/dust/aerosol.
Hand protection	:	Chemical resistant protective gloves
Eye protection	:	Safety glasses with side-shields
Body protection	:	Laboratory: laboratory coat; factory: chemical protection overall if dust is formed.
Additional information	:	Only use protective equipment in accordance with national/international regulations. Follow the national regulations about wearing personal protective equipment and the warranty given by the manufacturer for the safe function.
General protective measures	:	Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust. Avoid contact with skin, eyes and clothing.

9. Physical and Chemical Properties

Form	:	powder
Color	:	white
Odor	:	odorless
Odor threshold	:	No data available
pH value	:	No data available
Melting point/range	:	Not applicable
Boiling point/boiling range	:	Not applicable
Flash point	:	Not applicable
Ignition temperature	:	No data available
Evaporation rate	:	Not applicable
Flammability	:	No data available

Lower explosion limit	: No data available
Upper explosion limit	: No data available
Vapor pressure	: Not applicable
Relative vapor density	: Not applicable
Relative density	: No data available
Solubility in water	: 0.1 g/l
Partitioning coefficient n-octanol/water (log Pow)	: No data available
Thermal decomposition	: No data available
Viscosity, dynamic	: Not applicable
Explosiveness	: Not tested

Further information

Bulk density	: No data available
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10. Stability and Reactivity

Hazardous reactions	: Dust may form explosive mixture in air.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Substances to avoid	: No data available
Hazardous decomposition products	: No data available

11. Toxicological Information

Acute oral toxicity	: No data available
Acute inhalation toxicity	: No data available
Acute dermal toxicity	: No data available
Acute toxicity (other route)	: LD50 intravenous > 100 mg/kg Rat LD50 subcutaneous > 100 mg/kg Rat
Skin irritation	: No data available
Eye irritation	: No data available
Sensitization	: No data available
Genetic toxicity in vitro	: No data available
Genetic toxicity in vivo	: No data available
Carcinogenicity	: No data available
Reproductive toxicity	: No data available
Teratogenicity	: No data available
Aspiration hazard	: No data available

12. Ecological information

Ecotoxicity

Toxicity to fish	:	No data available
Toxicity to daphnia	:	No data available
Toxicity to algae	:	No data available
Toxicity to bacteria	:	No data available
Chronic toxicity to fish	:	No data available
Chronic toxicity to aquatic invertebrates	:	No data available

Persistence and degradability

Biological degradation	:	No data available
Bioaccumulation	:	No data available
PBT and vPvB assessment	:	Non-classified vPvB substance, Non-classified PBT substance

13. Disposal Considerations

Product	:	Dispose of in accordance with local regulations.
Contaminated packaging	:	Packs that cannot be cleaned should be disposed of in the same manner as the contents. Uncontaminated packaging can be recycled.

14. Transport Information

Further information	:	Not classified as dangerous for conveyance in the meaning of the regulations for the transport of dangerous goods by road and rail. Not classified as dangerous in the meaning of sea and air transport regulations.
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15. Regulatory information

National legislation/regulations

Water hazard class	:	VWVWS WGK 1 slightly water endangering Annex 4 VwVwS (Germany) dated Mai, 17 th 1999
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16. Other particulars

Prepared by: Environmental Health & Safety

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Replaces: N/A

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