

Heparinase III

Section 1 – Chemical product and company identification

Supplier: Iduron
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Product name: Heparinase III
Product use: Scientific research
Catalogue no: HEP-ENZ III

Section 2 – Composition

Designation: Heparinase III
Quantity: 0.1IU, 0.5IU, 1.0IU, 2.0IU
Appearance/form: Frozen solution
Origin of starting material: Flavobacterium heparinum ATCC 13125
Manufacturing process: Growth of bacterium: McLean, M.W. et al. (1984) Eur. J. Biochem. 145, 607-615. Purification by further chromatography. Final product 0.22-um sterile filtered and stored at -60 deg.C.
Specificity: Depolymerises heparan sulphate by elimination at the uronic acid. Acts next to N-sulphate or N-acetate, in sites with low O-sulphation. However some of these sites are totally resistant to Hep III (and also Hep II).
Unit of activity: 1 umol per minute at 25°C, using assay below.
Assay: Against bovine kidney HS (prepared in house). Activity determined by increase in A232nm..

Section 3 – Hazards identification

We are not aware of any toxicity associated with this product. In common with good laboratory practice the material should only be handled by qualified personnel trained in laboratory procedures and familiar with potential hazards. These products are not intended for human consumption, drug use or any form of human experimentation.

Section 4 – First aid measures

If inhaled or if breathed in, move person into fresh air. If not breathing give artificial respiration

In case of skin contact; Wash off with soap and plenty of water.

In case of eye contact; Flush eyes with water as a precaution.

If swallowed; Never give anything by mouth to an unconscious person.

Rinse mouth with water.

Section 5 – Firefighting measures

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Nature of decomposition products not known.

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus for fire fighting if necessary.

Section 6 – Accidental release measures

Personal precautions; Avoid dust formation.

Environmental precautions; Do not let product enter drains.

Methods for cleaning up; sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7 – Handling and storage

Handling; Provide appropriate exhaust ventilation at places where dust is formed.

Normal measures for preventive fire protection.

Storage; Keep container tightly closed. Recommended storage temperature: -20 °C - 80°C

Section 8 – Exposure control/personal protection

Contains no substances with occupational exposure limit values.

Personal protective equipment; Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Respiratory protection are not required.

Hand protection; for prolonged or repeated contact use protective gloves.

Hygiene measures; General industrial hygiene practice.

Section 9 – Physical and chemical properties

pH no data available

Melting point 0°C

Boiling point no data available

Flash point no data available

Ignition temperature no data available

Lower explosion limit no data available
Upper explosion limit no data available
Water solubility no data available

Section 10 – Stability and reactivity

Storage stability; stable under recommended storage conditions; -20°C.
Reactivity; no data available
Chemical stability; no data available
Possibility of hazardous reactions; no data available
Conditions to avoid; no data available
Incompatible materials; no data available

Section 11 – Toxicological information

Acute toxicity; no data available
Irritation and corrosion; no data available
Sensitisation; no data available
IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Potential Health Effects

Inhalation May be harmful if inhaled.
May cause respiratory tract irritation.
Skin May be harmful if absorbed through skin.
May cause skin irritation.
Eyes May cause eye irritation.
Ingestion May be harmful if swallowed.

Section 12 – Ecological information

Elimination information (persistence and degradability); no data available
Eco toxicity effects; no data available

Section 13 – Disposal information

Observe all federal, state, and local environmental regulations.
Contaminated packaging - Dispose of as unused product.

Section 14 – Transport information

ADR/RID; Not dangerous goods
IMDG; Not dangerous goods
IATA; Not dangerous goods

Section 15 - Regulatory information

The product does not need to be labelled in accordance with EC directives or respective national laws.

Section 16 – Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Iduron Ltd., shall not be held liable for any damage resulting from handling or from contact with the above product.