

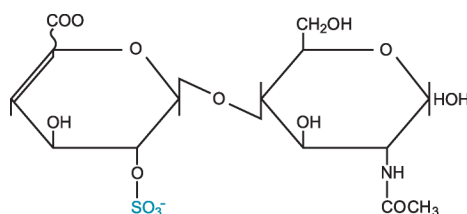
## Heparin Disaccharide

### Section 1 – Chemical product and company identification

Supplier: Iduron  
Address: c/o Biohub  
Alderley Park  
Alderley Edge  
SK10 4TG  
UK  
Contact email [info@iduron.co.uk](mailto:info@iduron.co.uk)  
Product name: Heparin disaccharide  
Product use: Scientific research  
Catalogue no: HD007

### Section 2 – Composition

Structure:  $\Delta$ UA<sub>2</sub>S – GlcNAc  
 $C_{14}H_{19}NO_{14}SNa_2$   
Produced by the action of bacterial Heparinase and isolated by high resolution gel filtration and ion exchange chromatography. The uronate (HexA) contains a C4-C5 double bond due to the action of the heparinases used to depolymerise heparin.



Quantity: 1mg per vial  
Appearance: White powder  
Origin: High quality porcine mucosal heparin.  
Purity: > 95%

### 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. 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 – Fire fighting measures

Suitable extinguishing media

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

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: -20 °C. Hygroscopic

#### Section 8 – Exposure control/personal protection

Contains no substances with occupational exposure limit values.

Personal protective equipment and respiratory protection:

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

For prolonged or repeated contact use protective gloves.

Eye protection

Safety glasses

Hygiene measures

General industrial hygiene practice.

#### Section 9 – Physical and chemical properties

Appearance

Form solid

Safety data

pH no data available

Melting point no data available

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

Very stable under recommended storage conditions; -20°C.

##### Conditions to avoid

Avoid moisture.

##### Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides. Sulphur oxides, Sodium oxides

#### Section 11 – Toxicological information

##### Acute toxicity

no data available

##### Irritation and corrosion

no data available

##### Sensitisation

no data available

##### Chronic exposure

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

Heparin and its salts act as anticoagulants subcutaneously or intravenously. 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.

Target Organs Blood.

Section 12 – Ecological information

Elimination information (persistence and degradability)

no data available

Ecotoxicity 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

Labelling according to EC Directives

Further 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.