

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Date of Issue: 7/20/2018 Version: 1.0

SECTION 1: IDENTIFICATION

1.1. **Product Identifier**

Product Name: Heparin Sodium Salt cGMP

Product Code: AK9987

1.2. Recommended use of the chemical and restrictions on use

Identified Uses: For research use or further manufacturing only.

Restricted Uses: Not for human use.

1.3. Name, Address, and Telephone of the Responsible Party

Akron Biotechnology, LLC 6353 W Rogers Circle, Suite 2 Boca Raton, FL 33487 561-750-6120

www.akronbiotech.com

Email: info@akronbiotech.com

1.4. **Emergency Telephone Number**

Emergency Number: 561-750-6120

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Not a hazardous substance or mixture.

2.2. **Label Elements**

Not a hazardous substance or mixture.

2.3. Other Hazards

Not a hazardous substance or mixture.

2.4. **Unknown Acute Toxicity (GHS-US/CA)**

No data available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. **Substance**

Not applicable.

3.2. **Mixture**

Chemical Name	Common name and synonyms	Product Identifier (CAS-No)
Not Applicable	Heparin	9041-08-1

Date of Issue: 7/20/2018 Page 1 of 6 EN (English US)

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

Inhalation:

Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Seek medical advice if necessary.

Skin Contact:

Remove contaminated clothing. Rinse affected area with water for at least 5 minutes. Obtain medical attention if irritation develops or persists.

Eye Contact:

Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

Ingestion:

Rinse mouth with water. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Not applicable.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Not applicable.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: No data available.

5.2. Special Hazards Arising From the Substance or Mixture

No data available.

5.3. Advice for Firefighters

Standard procedure for chemical fires.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. See Section 8 for more detail.

6.2. Environmental Precautions

Do not let product enter drains. Discharge into the environment must be avoided.

6.3. Methods and Materials for Containment and Cleaning Up

Soak up liquid components with inert absorbent material.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

Date of Issue: 7/20/2018 EN (English US) Page 2 of 6

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Use appropriate personal protective equipment (PPE). Avoid contact with skin and eyes.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Keep container tightly closed in a dry, well-ventilated place.

7.3. Specific End Use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

The product contains no substances with occupational exposure limit values from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

8.2. Exposure Controls

Appropriate Engineering Controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice.

Personal Protective Equipment (PPE):

Hand Protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye Protection:

Use face shield, chemical goggles or safety glasses tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin and Body Protection:

The type of protective equipment must be selected according to the concentration, amount of the hazardous substance at the specific workplace and appropriate risk assessment.

Respiratory Protection:

Respiratory protection is not required. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls:

Do not let product enter drains.

Date of Issue: 7/20/2018 EN (English US) Page 3 of 6

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Appearance : White to off-white powder

Odor : Not available
Odor threshold : Not available

pH : 5.0-7.5

Melting point/freezing point Not available Boiling point/boiling range Not available Flash point Not available Evaporation rate Not available Not available Flammability (solid, gas) Lower flammable limit Not available Upper flammable limit Not available Vapor pressure Not available Relative vapor density at 20°C Not available Relative density Not available Solubility Freely soluble Partition coefficient: N-Octanol/Water Not available Auto-ignition temperature Not available Viscosity Not available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

No data available.

10.2. Chemical Stability:

Stable under recommended handling and storage conditions (see Section 7).

10.3. Possibility of Hazardous Reactions:

No data available.

10.4. Conditions to Avoid:

Avoid direct contact with skin and avoid spillages.

10.5. Incompatible Materials:

No data available.

10.6. Hazardous Decomposition Products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Date of Issue: 7/20/2018 EN (English US) Page 4 of 6

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

There is no data available indicating acute toxicity.

Not classified Inhalation Exposure Not classified Ingestion Exposure Skin Exposure Not classified Eve Exposure Not classified Germ Cell Mutagenicity Not classified Carcinogenicity Not classified Reproductive Toxicity Not classified Specific Target Organ Toxicity (Single Exposure) Not classified Specific Target Organ Toxicity (Repeated Exposure) : Not classified Aspiration Hazard Not classified

SECTION 12: ECOLOGICAL INFORMATION

12.1. Ecotoxicity

No data available.

12.2. Persistence and Degradability

No data available.

12.3. Bioaccumulative Potential

No data available.

12.4. Mobility in Soil

No data available.

12.5. Other Adverse Effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Treatment of waste per local authority regulations. Empty containers may retain product residues. Avoid disposal of material into untreated sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional, national and local authority requirements.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

UN number : No data available
UN proper shipping name : No data available
Transport hazard class : No data available
Packing group : No data available
Environment Hazards : No data available
Special precautions for user : No data available
Transport in bulk : No data available

Date of Issue: 7/20/2018 EN (English US) Page 5 of 6

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015)

SECTION 15: REGULATORY INFORMATION

SARA 302 Components

This product does not contain any chemical components subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This product does not contain any chemical components subject to the reporting requirements of SARA Title III, Section 313.

SARA 311/312 Hazardous Categorization

Acute Health Hazard : No
Chronic Health Hazard : No
Fire Hazard : No
Sudden Release of Pressure Hazard : No
Reactive Hazard : No

State Right-to-Know Components

This product does not contain any chemical components subject to the State Right-to-Know Act.

California Prop. 65 Components

This product does not contain any chemical components subject to Proposition 65.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 7/20/2018

Other Information : This document has been prepared in accordance with the SDS requirements

of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and

Canada's Hazardous Products Regulations (HPR).

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 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. Akron Biotechnology, LLC shall not be held liable for any damage resulting from handling or from contact with the above product.

NA GHS SDS 2015 (Can, US, Mex)

Date of Issue: 7/20/2018 EN (English US) Page 6 of 6