SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME
CHONDROITIN SULFATE SODIUM, USP (Bovine)

PRODUCT CODE
0890

SUPPLIER
MEDISCA Inc.
Tel.: 1.800.932.1039 | Fax.: 1.855.850.5855
661 Route 3, Unit C, Plattsburgh, NY, 12901
3955 W. Mesa Vista Ave., Unit A-10, Las Vegas, NV, 89118
6641 N. Belt Line Road, Suite 130, Irving, TX, 75063

MEDISCA Pharmaceutique Inc.
Tel.: 1.800.665.6334 | Fax.: 514.338.1693
4509 Rue Dobrin, St. Laurent, QC, H4R 2L8
21300 Gordon Way, Unit 153/158, Richmond, BC V6W 1M2

MEDISCA Australia PTY LTD
Tel.: 1.300.786.392 | Fax.: 61.2.9700.9047
Unit 7, Heritage Business Park
5-9 Ricketty Street, Mascot, NSW 2020

EMERGENCY PHONE
CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300
NSW Poisons Information Centre: 131 126
National Chemical Emergency Centre 44(0)1235239670

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION
Eye Irritation (Category 2B)

PICTOGRAM
Not Applicable

SIGNAL WORD
Warning

HAZARD STATEMENT(S)
Causes eye irritation.

PRECAUTIONARY STATEMENT(S)
Prevention
Wash thoroughly after handling.

Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage
Not applicable

Disposal
Not applicable

HMIS CLASSIFICATION
Health Hazard 1
Reactivity 0
Flammability 0
Personal Protection A

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
CHEMICAL NAME: Chondroitin Sulfate Sodium

BOTANICAL NAME: Not applicable

SYNONYM: Chondroitin, hydrogen sulfate, sodium salt

CHEMICAL FORMULA: \((C_{14}H_{19}NO_{14}SNa_{2})_n\)

CAS NUMBER: 9082-07-9

ALTERNATE CAS NUMBER: Not applicable

MOLECULAR WEIGHT: Not applicable

COMPOSITION:

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as health hazards and hence require reporting in this section.

Chemical family: Sulfated linear mucopolysaccharide.

NOTES:

SECTION 4: FIRST-AID MEASURES

IN CASE OF EYE CONTACT: Flush with copious amounts of water for 15 minutes, separating eyelids with fingers. If irritation persists seek medical aid.

IN CASE OF SKIN CONTACT: Wash with soap & water for 15 minutes. If irritation persists seek medical aid.

IF SWALLOWED: Call a physician. Wash out mouth with water. Do not induce vomiting without medical advice.

IF INHALED: Not expected to present a significant hazard under anticipated conditions of normal use.

SYMPTOMS AND EFFECTS:

SECTION 5: FIREFIGHTING MEASURES

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Not applicable

FLAMMABLE PROPERTIES: May be combustible at high temperature

HAZARDOUS COMBUSTION PRODUCTS: Under fire conditions, hazardous fumes will be present.

SUITABLE & UNSUITABLE EXTINGUISHING MEDIA:

- Small fire: dry chemical, CO₂ or water spray.
- Large fire: dry chemical, CO₂, alcohol resistant foam or water spray. Do not get water inside containers.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

METHODS & MATERIAL FOR CONTAINMENT: On land, sweep or shovel into suitable containers. Minimize generation of dust.
SAFETY DATA SHEET

CLEANUP PROCEDURE

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Shut off all sources of ignition. Evacuate the area. If necessary, employ water fog to disperse the vapors. Absorb the matter with compatible vermiculite or other absorbing material. Place in a suitable container and retain for disposal. Ventilate and clean the affected area. Do not flush into sewerage system or to drains.

REFERENCE TO OTHER SECTIONS

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Do not inhale. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling. Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in accordance with local regulations. Do not store in unlabeled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination.

CONDITIONS FOR SAFE STORAGE

Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in accordance with local regulations. Do not store in unlabeled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination.

STORAGE CONDITIONS

Store in original container, tightly sealed, protected from direct sunlight and moisture. Preserve in airtight container, protected from light.

SPECIFIC END USE(S)

See Section 1

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

Chemical Name: CHONDROITIN SULFATE SODIUM    CAS #: 9082-07-9

<table>
<thead>
<tr>
<th>Country</th>
<th>Limit value-8 hours</th>
<th>Limit value-Short Term</th>
<th>IDLH</th>
<th>REL</th>
<th>Advisory</th>
<th>Notes</th>
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<tbody>
<tr>
<td></td>
<td>ppm</td>
<td>mg/m³</td>
<td>ppm</td>
<td>mg/m³</td>
<td></td>
<td></td>
</tr>
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<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
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<tr>
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<td>N/L</td>
<td>N/L</td>
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<td>N/L</td>
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<td>HSE</td>
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<td>N/L</td>
<td>N/L</td>
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<tr>
<td>GESTIS</td>
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<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
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</tr>
</tbody>
</table>

N/L = Not listed ; N/A = Not Available
PELs are 8-hour TWAs = Limit value - Eight hours
Ceiling or Short-Term TWA = STEL = Limit value - Short term

EXPOSURE GUIDELINES

Consult local authorities for provincial or state exposure limits. Particulates not otherwise regulated, respirable fraction: 5 mg/m³

PERSONAL PROTECTIVE EQUIPMENT

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by WHMIS or OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to minimize contact with skin. Respirators: Follow WHMIS or OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Thermal Hazards: For products representing a thermal hazard, appropriate Personal Protective Equipment should be used.

SPECIFIC ENGINEERING CONTROLS

Adequate mechanical ventilation. Fumehood, eye wash station, and safety shower.
## SAFETY DATA SHEET

**NOTES**

Occupational exposure limits: Organic dust, total 3 mg/m³

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PHYSICAL STATE</strong></td>
<td>Solid</td>
</tr>
<tr>
<td><strong>DESCRIPTION</strong></td>
<td>White or off-white powder. Is extremely hygroscopic once dried.</td>
</tr>
<tr>
<td><strong>SOLUBILITY</strong></td>
<td>Freely soluble in water, practically insoluble in acetone and in ethanol (96 per cent).</td>
</tr>
<tr>
<td><strong>ODOR</strong></td>
<td>Odorless or slightly characteristic</td>
</tr>
<tr>
<td><strong>FLAMMABILITY</strong></td>
<td>May be combustible at high temperature</td>
</tr>
<tr>
<td><strong>AUTO-IGNITION TEMPERATURE</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>BOILING POINT</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>DECOMPOSITION TEMPERATURE</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>EVAPORATION RATE</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>EXPLOSIVE LIMIT</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>FLASH POINT</strong></td>
<td>Not available</td>
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<tr>
<td><strong>log P (OCTANOL-WATER)</strong></td>
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</tr>
<tr>
<td><strong>LOWER FLAMMABLE/EXPLOSIVE LIMIT(S)</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>OXIDIZING PROPERTY</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>MELTING/FREEZING POINT</strong></td>
<td>Not available</td>
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<tr>
<td><strong>ODOR THRESHOLD</strong></td>
<td>Not available</td>
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<tr>
<td><strong>RELATIVE DENSITY (WATER = 1)</strong></td>
<td>0.3 - 2.0 g/mL</td>
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<tr>
<td><strong>SPECIFIC GRAVITY</strong></td>
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<tr>
<td><strong>UPPER FLAMMABLE/EXPLOSIVE LIMIT(S)</strong></td>
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<td><strong>VAPOR PRESSURE</strong></td>
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<td><strong>VAPOR DENSITY (AIR = 1)</strong></td>
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<tr>
<td><strong>VISCOSITY</strong></td>
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The physical data presented above are typical values and should not be construed as a specification.

### SECTION 10: STABILITY AND REACTIVITY

<table>
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<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td><strong>REACTIVITY</strong></td>
<td>Not established</td>
</tr>
<tr>
<td><strong>CHEMICAL STABILITY</strong></td>
<td>Stable under recommended storage conditions</td>
</tr>
<tr>
<td><strong>INCOMPATIBLE MATERIALS</strong></td>
<td>Strong oxidants</td>
</tr>
<tr>
<td><strong>HAZARDOUS DECOMPOSITION PRODUCTS</strong></td>
<td>Toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides and other gases may occur</td>
</tr>
<tr>
<td><strong>HAZARDOUS POLMERIZATION</strong></td>
<td>Will not occur</td>
</tr>
<tr>
<td><strong>POSSIBILITY OF HAZARDOUS REACTION</strong></td>
<td>Not established</td>
</tr>
<tr>
<td><strong>CONDITIONS TO AVOID</strong></td>
<td>Moisture, sunlight and extreme temperatures</td>
</tr>
</tbody>
</table>

### SECTION 11: TOXICOLOGICAL INFORMATION
SAFETY DATA SHEET

ACUTE TOXICITY

Oral: Rat: LD50: (mg/kg): > 10 000
Dermal: Rabbit: LD50: (mg/kg): Not available
Inhalation: Rat: LC50: (mg/L/4hr): Not available

SKIN CORROSION/IRRITATION

Based on available data, the classification criteria are not met.

SERIOUS EYE DAMAGE/EYE IRRITATION

Causes eye irritation.

RESPIRATORY SENSITIZATION

Due to lack of data the classification is not possible.

SKIN SENSITIZATION

Due to lack of data the classification is not possible.

GERM CELL MUTAGENICITY

Based on available data, the classification criteria are not met.

CARCINOGENICITY

OSHA
CHONDROITIN SULFATE SODIUM is not listed.

NTP
CHONDROITIN SULFATE SODIUM is not listed.

IARC
CHONDROITIN SULFATE SODIUM is not evaluated.

California Proposition 65
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

ADDITIONAL CARCINOGENICITY INFORMATION

Based on available data, the classification criteria are not met.

REPRODUCTIVE TOXICITY

Due to lack of data the classification is not possible.

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE

Based on available data, the classification criteria are not met.

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE

Based on available data, the classification criteria are not met.

ASPIRATION HAZARDS

Not expected to present a significant hazard under anticipated conditions of normal use.

SIGNS AND SYMPTOMS OF EXPOSURE

Inhalation
May be harmful if inhaled. May cause irritation to mucous membranes and respiratory tract.

Ingestion
May be harmful if swallowed.

Skin
May be harmful if absorbed through skin. May cause skin irritation.

Eyes
Causes eye irritation.

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY

EC50: 48 Hr: Crustacea: (mg/L): Not available
LC50: 96 Hr: Fish: (mg/L): Not available
EC50: 72 or 96 Hr: Algae (or other aqua plants): (mg/L): Not available

PERSISTENCE AND DEGRADABILITY

Not available

BIOACCUMULATIVE POTENTIAL

Not available

MOBILITY IN SOIL

Soluble in water.

OTHER ADVERSE EFFECTS

Not available

This product is not intended to be released into the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Dispose of in accordance with federal / local laws and regulations. Avoid release into the environment.
SECTION 14: TRANSPORT INFORMATION

UN PROPER SHIPPING NAME: Not dangerous good
UN NUMBER: Not applicable
CLASS: Not applicable
PACKING GROUP: Not applicable

AUSTRALIA
HAZCHEM: Not Applicable
EU
TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE: Not Listed
ENVIRONMENTAL HAZARDS: Not available
SPECIAL SHIPPING INFORMATION: Not applicable

SECTION 15: REGULATORY INFORMATION

UNITED STATES REGULATIONS

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N/L = Not Listed; X = Listed

AUSTRALIAN REGULATIONS

<table>
<thead>
<tr>
<th>Chemical Name &amp; CAS</th>
<th>Poisons and Therapeutic Goods Regulation</th>
<th>Therapeutic Goods Act</th>
<th>Code of Practices - Illicit Drug Precursors</th>
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<tr>
<td>CHONDROITIN SULFATE SODIUM 9082-07-9</td>
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N/L = Not Listed

EU REGULATIONS

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<td>N/L</td>
</tr>
</tbody>
</table>

N/L = Not Listed; X = Listed

Any EU regulation not listed above is not applicable to this product.
SECTION 16: OTHER INFORMATION

REFERENCES

Available upon request

ABBREVIATIONS AND ACRONYMS


LAST REVISION

12/2019

SUPERSEDES

01/2019

DISCLAIMER

For a list of changes to the SDS since the last version, please communicate with MEDISCA at www.medisca.com

SUPPLEMENTARY INFORMATION

For all country specific requirements not outlined on this Safety Data Sheet, please request Supplementary Page to this Safety Data Sheet.