SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

<table>
<thead>
<tr>
<th>Product name</th>
<th>Novobiocin Supplement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>7985</td>
</tr>
</tbody>
</table>

1.2. Relevant identified uses of the substance or mixture and uses advised against

<table>
<thead>
<tr>
<th>Product Use</th>
<th>[SU22] Professional uses: Public domain (administration, education, entertainment, services, craftsmen); [PC21] Laboratory chemicals;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Intended for laboratory use only.</td>
</tr>
</tbody>
</table>

1.3. Details of the supplier of the safety data sheet

<table>
<thead>
<tr>
<th>Company</th>
<th>Neogen Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>620 Lesher Place, Lansing MI 48912 USA</td>
</tr>
<tr>
<td>Web</td>
<td><a href="http://www.neogen.com">www.neogen.com</a></td>
</tr>
<tr>
<td>Telephone</td>
<td>517-372-9200/800-234-5333</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:SDS@neogen.com">SDS@neogen.com</a></td>
</tr>
</tbody>
</table>

1.4. Emergency telephone number

| 24 hours:          | Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)                                                |
|                    | Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)                                        |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2. Classification - GHS

|                  | Skin Sens. 1: H317; Eye Irrit. 2: H319;                                                                                     |

2.2. Label elements

<table>
<thead>
<tr>
<th>Hazard pictograms</th>
<th>![Hazard Pictogram]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal Word</td>
<td>Warning</td>
</tr>
<tr>
<td>Hazard Statement</td>
<td>Skin Sens. 1: H317 - May cause an allergic skin reaction. Eye Irrit. 2: H319 - Causes serious eye irritation.</td>
</tr>
</tbody>
</table>
Novobiocin Supplement

2.2. Label elements

Precautionary Statement: Response
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - IF ON SKIN: Wash with plenty of water/. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention.
P501 - Dispose of contents/container to an approved waste disposal facility in accordance with local and national regulations.

Precautionary Statement: Disposal

2.3. Other hazards

Other hazards
None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

EC 1272/2008

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Index No.</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>REACH Registration Number</th>
<th>Conc. (%w/w)</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novobiocin sodium salt</td>
<td>1476-53-5</td>
<td>216-023-6</td>
<td>216-023-6</td>
<td>60 - 70%</td>
<td>Skin Sens. 1: H317; Eye Irrit. 2: H319;</td>
<td></td>
</tr>
</tbody>
</table>

Further information
Concentrations listed are not product specifications.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Move the exposed person to fresh air. If breathing is difficult give oxygen. If breathing stops, provide artificial respiration. Seek medical attention if irritation or symptoms persist.

Eye contact
Rinse immediately with plenty of water. Contact lenses should be removed. Seek medical attention if irritation or symptoms persist.

Skin contact
Remove contaminated clothing. Wash with soap and water. Seek medical attention if irritation or symptoms persist.

Ingestion
Do not induce vomiting unless told to do so by the poison control center or doctor. Rinse mouth thoroughly. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation
May cause dizziness and headache. May cause irritation to respiratory system.

Eye contact
Causes serious eye irritation.

Skin contact
May cause irritation to skin. May cause dermatitis.

Ingestion
Ingestion may cause nausea and vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Remove the affected person from the source of contamination immediately. Transfer to hospital if there are burns or symptoms of poisoning. Seek medical attention if irritation or symptoms persist. If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting measures
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### 5.1. Extinguishing media

Use extinguishing media appropriate to the surrounding fire conditions.

### 5.2. Special hazards arising from the substance or mixture

May form combustible dust/air mixture.

### 5.3. Advice for firefighters

Do not breathe dust or vapour. Wear suitable respiratory equipment when necessary.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid formation of dust. Use as appropriate: Protective equipment, Protective clothing. Ensure adequate ventilation of the working area. Avoid prolonged or repeated exposure.

#### 6.2. Environmental precautions

Prevent further spillage if safe. Clean spillage area thoroughly with plenty of water. Do not flush into surface water. Do not let product contaminate subsoil.

#### 6.3. Methods and material for containment and cleaning up

Avoid formation of dust. Clean spillage area thoroughly with plenty of water. Do not contaminate water by cleaning of equipment or disposal of wastes.

#### 6.4. Reference to other sections

See Section(s) 2, 8, and 13 for further information.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Adopt best Manual Handling considerations when handling, carrying and dispensing. Avoid contact with eyes. Do not eat, drink or smoke in areas where this product is used or stored. Ensure adequate ventilation of the working area. Do not contaminate water by cleaning of equipment or disposal of wastes. Use as appropriate: Protective clothing. Read the entire label and follow all use directions, restrictions, and precautions.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store in correctly labelled containers. Keep container tightly closed. Do not contaminate water, food, or feed by storage or disposal. Follow label instructions.

#### 7.3. Specific end use(s)

See Section(s) 1.2 for further information.

### SECTION 8: Exposure controls/personal protection

#### 8.2. Exposure controls

- **8.2.1. Appropriate engineering controls**
  - Ensure adequate ventilation of the working area.

- **8.2.2. Individual protection measures**
  - Use as appropriate: Protective equipment.

- **Eye / face protection**
  - Use as appropriate: Suitable eye protection.
8.2. Exposure controls

| Skin protection - Handprotection | Use as appropriate: Chemical-resistant gloves made of any waterproof material. |
| Skin protection - Other Respiratory protection | Use as appropriate: Protective clothing. |
| Occupational exposure controls | In case of insufficient ventilation, wear suitable respiratory equipment. |
| | Exposure above the recommended occupational exposure limit (OEL) may cause adverse health effects. Protect clothing from contact with the product. Provide chemical shower. Provide eye wash station. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Appearance | Solid/Powder |
| Colour | White |
| Odour | Odourless/Slight |
| Odour threshold | No data available |
| pH | No data available |
| Melting point | No data available |
| Freezing Point | No data available |
| Initial boiling point | Not applicable. |
| Flash point | No data available |
| Evaporation rate | No data available |
| Flammability (solid, gas) | No data available |
| Vapour pressure | No data available |
| Vapour density | No data available |
| Relative density | No data available |
| Partition coefficient | No data available |
| Autoignition temperature | No data available |
| Viscosity | Not applicable. |
| Explosive properties | No data available |
| Oxidising properties | No data available |
| Solubility | Soluble in water |

9.2. Other information

- VOC (Volatile organic compounds): Not applicable.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4. Conditions to avoid

Keep away from extreme temperatures, Moisture.
10.5. Incompatible materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No data available.</td>
</tr>
</tbody>
</table>

10.6. Hazardous decomposition products

<table>
<thead>
<tr>
<th>Product</th>
<th>Decomposition Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Carbon oxides.</td>
</tr>
</tbody>
</table>

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute toxicity</strong></td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td>May cause irritation to skin. May cause dermatitis.</td>
</tr>
<tr>
<td><strong>Serious eye damage/irritation</strong></td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitisation</strong></td>
<td>May cause allergic reactions in susceptible people. May cause sensitisation by skin contact.</td>
</tr>
<tr>
<td><strong>Germ cell mutagenicity</strong></td>
<td>No mutagenic effects reported.</td>
</tr>
<tr>
<td><strong>Carcinogenicity</strong></td>
<td>Not found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs, Volumes 1-123. Not listed in the National Toxicology Program (NTP) 14th Report on Carcinogens. Not listed in the American Conference of Governmental Industrial Hygienists (ACGIH) Guide to Occupational Exposure Values. Not listed in the OSHA standard 1910.1003 Carcinogens.</td>
</tr>
<tr>
<td><strong>Reproductive toxicity</strong></td>
<td>No teratogenic effects reported.</td>
</tr>
<tr>
<td><strong>STOT-single exposure</strong></td>
<td>May cause allergy or asthma symptoms or breathing difficulties if inhaled.</td>
</tr>
<tr>
<td><strong>STOT-repeated exposure</strong></td>
<td>No Significant Hazard.</td>
</tr>
<tr>
<td><strong>Aspiration hazard</strong></td>
<td>No Significant Hazard.</td>
</tr>
<tr>
<td><strong>Repeated or prolonged exposure</strong></td>
<td>Avoid prolonged or repeated exposure. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible.</td>
</tr>
</tbody>
</table>

11.1.2. Mixtures

| Mixtures          | See Section(s) 3 for further information. |

11.1.3. Hazard Information

| Information       | See Section(s) 2 and 3 for further information. |

11.1.4. Toxicological Information

| Information       | No data available |

11.1.5. Hazard Class

| Information       | See Section(s) 2 and 14 for further information. |

11.1.6. Classification Criteria

| Information       | Based on the Globally Harmonised System (GHS) considerations for the classification of mixtures. See Section 15 for regulatory citations. |

11.1.7. Information on likely routes of exposure

| Routes            | Eye contact. Ingestion. Inhalation. Skin contact. |

11.1.8. Symptoms related to the physical, chemical and toxicological characteristics

| Symptoms          | See Section(s) 4.2 for further information. |

11.1.9. Delayed and immediate effects as well as chronic effects from short and long-term exposure

| Effects           | See Section(s) 4.2 for further information. |

11.1.10. Interactive effects

| Effects           | See Section(s) 4.2 for further information. |
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### 11.1.10. Interactive effects

No data available.

### 11.1.11. Absence of specific data

<1% of this mixture consists of ingredients of unknown acute toxicity.

### 11.1.12. Mixture versus substance information

See Section(s) 3 for further information.

### 11.1.13. Other information

Caution - substance not yet fully tested.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No data available

#### 12.2. Persistence and degradability

No data is available on this product.

#### 12.3. Bioaccumulative potential

No data is available on this product.

**Partition coefficient**

- **Novobiocin Supplement**: No data available

#### 12.4. Mobility in soil

No data is available on this product.

#### 12.5. Results of PBT and vPvB assessment

No data is available on this product.

#### 12.6. Other adverse effects

Caution - substance not yet fully tested.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Dispose of in compliance with all local and national regulations. Follow label instructions.

**Disposal methods**

- Do not contaminate water by cleaning of equipment or disposal of wastes. Do not flush into surface water. Dispose of in compliance with all local and national regulations.

**Disposal of packaging**

- Nonrefillable container. Do not reuse or refill this container.
  - If empty: Do not reuse this container. Place in trash or offer for recycling, if available.
  - If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

### SECTION 14: Transport information

#### 14.1. UN number

The product is not classified as dangerous for carriage.
14.2. UN proper shipping name

The product is not classified as dangerous for carriage.

14.3. Transport hazard class(es)

The product is not classified as dangerous for carriage.

14.4. Packing group

The product is not classified as dangerous for carriage.

14.5. Environmental hazards

The product is not classified as dangerous for carriage.

14.6. Special precautions for user

The product is not classified as dangerous for carriage.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

The product is not classified as dangerous for carriage.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemical Inventories/Right-to-Know Lists:

--International--.
Basel Convention (Hazardous Waste):  Not applicable.
Chemical Weapons Convention (OPCW):  This material contains no reportable components.
Kyoto Protocol Greenhouse Gases:  This material contains no reportable components.
Mercosur Agreement:  Applicable.
Montreal Protocol:  This material contains no reportable components.
The Rotterdam Convention:  This material contains no reportable components.
The Stockholm Convention:  This material contains no reportable components.

--Asia and the ASEAN Nations--.
Catalog of Hazardous Chemicals (China):  This material contains no reportable components.
Regulation of Minister of Trade of the Republic of Indonesia, Number 75, Year 2014, regarding The Second Amendment of Minister of Trade, Number 44, Year 2009, Regarding Provision, Distribution, and Control of Hazardous Substances:  This material contains no reportable components.
Chemical Substances Control Law (Japan):  This material contains no reportable components.
Industrial Safety and Health Act, Dangerous Substances (Japan):  This material contains no reportable components.
Poisonous and Deleterious Substances Act (Japan):  This material contains no reportable components.
Chemical Substances Subject to Permission (Korea):  This material contains no reportable components.
Restricted or Prohibited Substances (Korea):  This material contains no reportable components.
Use and Standards of Exposure of Chemicals Hazardous to Health (USECHH), Regulation 2000 (Malaysia):  This material contains no reportable components.
Philippine Inventory of Chemicals and Chemical Substances (PICCS):  All ingredients listed or exempt.
Taiwan Toxic and Concerned Chemical Substances Control Act (TCCSCA):  This material contains no reportable components.
Hazardous Substances Act (Thailand):  This material contains no reportable components.
Law on Chemicals (Vietnam):  This material contains no reportable components.
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

--Australia and New Zealand--.
Australian Dangerous Goods Code: Not applicable.
Australian Inventory of Chemical Substances (AICS): All ingredients listed or exempt.
New Zealand Inventory of Chemicals (NZIoC): All ingredients listed or exempt.

--European Union (EU) and the United Kingdom (UK)--.
Authorisation List (Annex XIV of REACH): This material contains no reportable components.
Annex XVII for REACH: This material contains no reportable components.
Article 95 of the Biocidal Products Regulation (BPR): Not applicable.

--North America--.
Domestic/Non-Domestic Substances Lists (DSL/NDSL): All ingredients listed or exempt.
Toxic Substances Control Act (TSCA): All ingredients listed or exempt.
Massachusetts Right-to-Know Hazardous Substance List: This material contains no reportable components.
New Jersey Worker and Community Right to Know Act: This material contains no reportable components.
Pennsylvania Right to Know Law: This material contains no reportable components.
Rhode Island Right-to-Know General Law: This material contains no reportable components.
California Proposition 65: This material contains no reportable components.

SECTION 16: Other information

Other information

This document differs from the previous version in the following areas:
1 - Description.
1 - Product Use.
2 - Precautionary Statement: Response.
3 - Description.
4 - Eye contact.
4 - Skin contact.
5 - 5.2. Special hazards arising from the substance or mixture.
9 - 9.1. Information on basic physical and chemical properties (Appearance).
9 - 9.1. Information on basic physical and chemical properties (Viscosity).
9 - 9.1. Information on basic physical and chemical properties (Evaporation rate).
9 - 9.1. Information on basic physical and chemical properties (Solubility).
9 - 9.2. Other information (VOC (Volatile organic compounds)).
9 - 9.2. Other information (Product Subcategory).
11 - 11.1.4. Toxicological Information.
11 - Skin corrosion/irritation.
11 - Respiratory or skin sensitisation.
11 - Repeated or prolonged exposure.
11 - Serious eye damage/irritation.
15 - Chemical Inventories/Right-to-Know Lists:
16 - Maximum content of VOC.

Acronyms

ADR/RID: European Agreements Concerning the International Carriage of Dangerous Goods by Rail (RID) and by Road (ADR).
CAS No.: Chemical Abstracts Service.
GHS: Globally Harmonized System.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organisation.
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#### Other Information

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods.</td>
</tr>
<tr>
<td>LD</td>
<td>Lethal dose.</td>
</tr>
<tr>
<td>OEL</td>
<td>Occupational exposure limit.</td>
</tr>
<tr>
<td>OSHA</td>
<td>U.S. Occupational Safety and Health Administration.</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit.</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation, and Restriction of Chemicals.</td>
</tr>
<tr>
<td>SVHC</td>
<td>Substance of very high concern.</td>
</tr>
<tr>
<td>US DOT</td>
<td>United States Department of Transportation.</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compound.</td>
</tr>
<tr>
<td>WEL</td>
<td>Workplace Exposure Limit.</td>
</tr>
</tbody>
</table>

#### Text of Hazard Statements in Section 3

- **Skin Sens. 1: H317** - May cause an allergic skin reaction.
- **Eye Irrit. 2: H319** - Causes serious eye irritation.

#### Further Information

**DISCLAIMER:** The information and recommendations set forth herein ("Information") are presented in good faith and believed to be correct as of the date issued. No representation is made regarding the completeness or accuracy of the Information. Further, because of the many factors that affect the use of this product, the Information is supplied upon the condition that the person(s) receiving it will make their own determination regarding its suitability for their own unique purpose(s), prior to use.

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