Section 1. Product and Company Identification

Supplier
CovaChem, LLC.
6260 East Riverside Blvd, STE 119
Loves Park, IL 61111
Phone: +1.815.315.1271 x3
Fax: +1.815.315.1272

Emergency Phone #:
+1.815.714.8421

Product Number
13504-25, 13504-custom

Product Name
NHS-SS-Biotin

Section 2. Composition / Information on Ingredients

OSHA Hazards
No OSHA Hazards known.
Not a dangerous substance according to GHS.

HMIS Classification
Health Hazard 0
Flammability 0
Physical Hazard 0

NFPA Rating
Health Hazard 0
Flammability 0
Physical Hazard 0

Potential Health Effects
Inhalation
May be harmful if inhaled. May cause respiratory irritation.

Skin
May be harmful if absorbed through the skin.

Eyes
May cause irritation to the eyes.

Ingestion
May be harmful if ingested.

Section 3. Hazards Identification

Synonyms
NHS-SS-Biotin, Succinimidyl 2-(biotinamido)ethyl-1,3’ dithiopropionate, Succinimidyl 3-[2-(biotinamido)ethyl(dithio)] propionate

Molecular Weight
504.64

Formula
C19H28N4O6S3

According to OSHA criteria, no ingredients are hazardous.

CAS Number
142439-92-7

Section 4. First Aid Measures

If Inhaled
Move to fresh air. Give artificial respiration if breathing has ceased.

In case of Skin Contact
Wash with soap and water.

In Case of Eye Contact
Flush with plenty of water. Seek medical attention.

If Swallowed
Rinse mouth with water and seek medical attention.

Section 5. Fire-Fighting Measures

Suitable Extinguishing Media
Water, dry chemical, alcohol resistant foam are all suitable.

Protective Equipment
If needed, wear self contained breathing apparatus.

Hazardous Combustion Products
Carbon oxides and Nitrogen oxides may form upon combustion

Section 6. Accidental Release Measures

Personal Precautions
Avoid breathing dust or vapors.

Environmental precautions
Prevent environmental release.

Section 7. Handling and Storage

Conditions for Safe Storage
Store container in a well ventilated, dry location.

Precautions regarding safe handling
Provide adequate ventilation and standard fire prevention measures.

Section 8. Exposure Controls / Personal Protection

Respiratory Protection
Use of a dust respirator is recommended (ie. type N95)

Hand Protection
Handle with nitrile rubber gloves.

Section 9. Physical and Chemical Properties

Form
white solid

Melting Point
129 - 131 C

Boiling Point
unavailable

Flash Point
unavailable

Ignition Temperature
unavailable

Autoignition Temperature
unavailable

Density
unavailable

Water Solubility
unavailable

Partition Coeff: n-octanol/water
unavailable

Section 10. Stability and Reactivity

Chemical Stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
unavailable

Conditions to Avoid
Do not expose to moisture

Materials to Avoid
Strong Oxidizers, Acid anhydrides, Acid chlorides, Strong bases

Hazardous decomposition products
Nitrous oxides and carbon oxides.
### Section 11. Toxicology

<table>
<thead>
<tr>
<th>Category</th>
<th>Data Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
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<tr>
<td>Inhalation LC50</td>
<td>data unavailable</td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>data unavailable</td>
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<tr>
<td>Skin corrosion / irritation</td>
<td>data unavailable</td>
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<tr>
<td>Eye Damage or Irritation</td>
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<tr>
<td>Skin and Respiratory Sensitization</td>
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</tr>
<tr>
<td>Germ Cell Mutagenicity</td>
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</tbody>
</table>

#### Carcinogenicity

- **IARC**: No component present at greater than 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC.
- **ACGIH**: No component present at greater than 0.1% is identified as a probable, possible or confirmed human carcinogen by ACGIH.
- **NTP**: No component present at greater than 0.1% is identified as a probable, possible or confirmed human carcinogen by NTP.
- **OSHA**: No component present at greater than 0.1% is identified as a probable, possible or confirmed human carcinogen by OSHA.

#### Potential Health Effects

- **Inhalation**: May be harmful if inhaled.
- **Ingestion**: May cause harm if swallowed.
- **Skin**: May cause harm if absorbed through skin.
- **Eyes**: May cause eye irritation.

### Section 12. Ecological Information

<table>
<thead>
<tr>
<th>Category</th>
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<td>Toxicology</td>
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<td>Persistence and degradability</td>
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<td>Bioaccumulative potential</td>
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<td>PBT and vPvB assessment</td>
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<tr>
<td>Other Adverse effects</td>
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</tbody>
</table>

### Section 13. Disposal Consideration

- Disposal Considerations: be recycled when possible. Please dispose any unused or used materials in accordance with applicable national, regional and local laws and regulations.

### Section 14. Transportation Information

- **DOT (USA)**: Not classified as dangerous goods
- **IMDG**: Not classified as dangerous goods
- **IATA**: Not classified as dangerous goods

### Section 15. Regulatory Information

- **OSHA Hazards**: None known
- **SARA 302 Components**: No chemicals in this material are subject to reporting requirements of SARA Title III, Section 302.
- **SARA 311/312**: No SARA Hazards
- **Californial Prop. 65 Components**: This material does not contain any chemicals known to the State of California to cause reproductive harm or birth defects.
- **Right to Know Components**: NHS-55-Biotin (CAS# 142439-92-7)

### Section 16. Other Information

The information represented in this MSDS is believed to be correct and is based on the current state of our knowledge. This document or any other document does not represent or suggest any type of warranty or guarantee of the product properties or characteristics of this material. CovaChem, LLC and its affiliates shall not be held liable for any damages that result from contact.