

## SECTION 1: Product and Company Identification

### Identification of the substance or mixture

**Product Name:** Biotin-LC-Hydrazide  
**Catalog #:** 10529

### Company Identification

Cepharm Life Sciences Inc.  
11830 W Market Place, Suite K  
Fulton, MD 20759  
USA  
Toll Free: 1-800-257-1565  
Phone: 410-636-4954

**24-hour Emergency Response for Hazardous Materials [or Dangerous Goods] Incident, Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Toll Free: 1-800-424-9300/ +1 703-527-3887 CCN 1010970**

**For Research Use Only. Not for use in diagnostic procedures.**

## SECTION 2: Hazards identification

### Classification of the substance or mixture

Not a hazardous substance or mixture.

### GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

**Hazards not otherwise classified (HNOC) or not covered by GHS - none**

## SECTION 3: Composition / Information on Ingredients

### Substances

**Synonyms:** Hexanoic acid, 6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-, hydrazide  
N-(+)-Biotinyl-6-aminohexanoic hydrazide

**CAS number:** 109276-34-8

Component	%	CAS-Number
Hexanoic acid, 6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-, hydrazide	98-100	109276-34-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First Aid Measures

### Description of first aid measures

#### If inhaled

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**In case of skin contact**

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**In case of eye contact**

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**If swallowed**

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

**Most important symptoms and effects, both acute and delayed****Potential acute health effects****Eye Contact:**

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

**Inhalation**

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact**

No known significant effects or critical hazards.

**Ingestion**

No known significant effects or critical hazards.

**Over-exposure signs / symptoms****Eye contact**

No specific data

**Inhalation**

No specific data

**Skin contact**

No specific data

**Ingestion**

No specific data

**Indication of any immediate medical attention and special treatment needed**

No data available.

**SECTION 5: Firefighting Measures****Extinguishing Media****Suitable extinguishing media**

Use an extinguishing agent suitable for the surrounding fire.

**Special hazards arising from the substance or mixture**

Decomposition products may include the following materials:

carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides

**Advice for firefighters**

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Further information**

No data available

## SECTION 6: Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing dust. Put on appropriate personal protective equipment.

#### For emergency responders:

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

#### Environmental precautions:

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

#### Small spill

Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Sweep up and shovel. Keep in suitable, closed containers for disposal.

#### Large spill

Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## SECTION 7: Handling & Storage

### Precautions for safe handling

#### Protective measures

Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust.

#### Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### Conditions for safe storage, including any incompatibilities

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

Recommended storage temperature: 2 to 8°C

Keep in a dry place.

### Specific end use(s)

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

## SECTION 8: Exposure Controls / Personal Protection

### Control parameters

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

### Exposure controls

#### Appropriate engineering controls

General industrial hygiene practice.

#### Personal Protective Equipment

##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin 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.

##### Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**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).

**Control of environmental exposure**

Do not let product enter drains.

**SECTION 9: Physical and Chemical Properties****Information on basic physical and chemical properties**

a) Appearance	Form: powder
b) Odor	No data available
c) Odor Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	195 to 196°C (383 to 384.8°F)
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	Partially soluble in the following materials: cold water and hot water.
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

**Other safety information**

No data available

**SECTION 10: Stability & Reactivity****Reactivity**

No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid**

No specific data.

**Incompatible materials**

No specific data.

**Hazardous decomposition products**

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

**SECTION 11: Toxicological Information****Information on toxicological effects****Acute toxicity**

no data available

**Conclusion/Summary:**

To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**  
no data available

**Respiratory or skin sensitization**  
**Germ cell mutagenicity**  
no data available

**Carcinogenicity**  
Not available.

**Reproductive toxicity**  
No data available

**Specific target organ toxicity - single exposure**  
May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure**  
No data available

**Aspiration hazard**  
No data available

**Information on the likely routes of exposure**  
Routes of entry anticipated: Oral, Dermal, Inhalation

**Potential acute health effects**

**Eye contact**  
No known significant effects or critical hazards.

**Inhalation**  
Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact**  
No known significant effects or critical hazards.

**Ingestion**  
No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact**  
No specific data.

**Inhalation**  
No specific data.

**Skin contact**  
No specific data

**Ingestion**  
No specific data

**Delayed and immediate effects and also chronic effects from short and long-term exposure**

**Short term exposure**  
**Potential immediate effects:** Not available  
**Potential delayed effects:** Not available.

**Long term exposure**  
**Potential immediate effects:** Not available.  
**Potential delayed effects:** Not available.

**Potential chronic health effects**  
Not available

<b>General:</b>	No known significant effects or critical hazards.
<b>Carcinogenicity:</b>	No known significant effects or critical hazards.
<b>Mutagenicity:</b>	No known significant effects or critical hazards.
<b>Teratogenicity:</b>	No known significant effects or critical hazards.
<b>Developmental effects:</b>	No known significant effects or critical hazards.
<b>Fertility effects:</b>	No known significant effects or critical hazards.

**Numerical measures of toxicity**  
**Acute toxicity estimates**  
Not available.

## SECTION 12: Ecological Information

### Toxicity

no data available

### Persistence and degradability

no data available

### Bioaccumulative potential

no data available

### Mobility in soil

no data available

### Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### Other adverse effects

no data available

## SECTION 13: Disposal Considerations

### Disposal methods

The generation of waste should be avoided or minimized wherever possible. 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 local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport Information

### DOT (US)

Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

## SECTION 15: Regulatory Information

### SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### SARA 311/312 Hazards

	Product Name	CAS Number	%
Form R – Reporting requirements	Hexanoic acid, 6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-, hydrazide	109276-34-8	98-100

### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

### Pennsylvania Right To Know Components

This material is not listed.

### New Jersey Right To Know Components

This material is not listed.

### California Prop. 65 Components

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

## SECTION 16: Other Information

### HMIS Rating

Health hazard:	0
Chronic Health Hazard:	
Flammability:	0
Physical Hazard	0

### NFPA Rating

Health hazard:	0
Fire Hazard:	0
Reactivity Hazard:	0

### Disclaimer:

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It does not represent any guarantee of the properties of the product. Cepham Life Sciences Incorporated and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.