SAFETY DATA SHEET

Cycloheximide


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

1.1. Product identifier

Product name: Cycloheximide
Product number: AC05909
Synonyms; trade names: Actidione, 3-[2-(3,5-Dimethyl-2-oxocyclohexyl)-2-hydroxyethyl]glutarimide, Naramycin A
CAS number: 66-81-9
EC number: 200-636-0

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

Identified uses: Laboratory reagent. Manufacture of substances. Research and development.

1.3. Details of the supplier of the safety data sheet

Supplier: Carbosynth Ltd
8&9 Old Station Business Park
Compton
Berkshire
RG20 6NE
UK
+44 1635 578444
+44 1635 579444
info@carbosynth.com

1.4. Emergency telephone number

Emergency telephone: +44 7887 998634

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards: Not Classified
Health hazards: Acute Tox. 1 - H300 Skin Irrit. 2 - H315 Muta. 2 - H341 Repr. 1B - H360
Environmental hazards: Aquatic Chronic 2 - H411

2.2. Label elements

EC number: 200-636-0
Pictogram

Signal word: Danger
Cycloheximide

Hazard statements
H300 Fatal if swallowed.
H315 Causes skin irritation.
H341 Suspected of causing genetic defects.
H360 May damage fertility or the unborn child.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P302+P352 IF ON SKIN: Wash with plenty of water.
P308+P313 IF exposed or concerned: Get medical advice/ attention.
P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards
No data available.

SECTION 3: Composition/information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Product name</th>
<th>Cycloheximide</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number</td>
<td>66-81-9</td>
</tr>
<tr>
<td>EC number</td>
<td>200-636-0</td>
</tr>
<tr>
<td>Chemical formula</td>
<td>C₁₁H₁₄NO₄</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Get medical advice/attention if you feel unwell.

Inhalation
Remove person to fresh air and keep comfortable for breathing. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if symptoms are severe or persist.

Ingestion
Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if symptoms are severe or persist.

Skin contact
Remove contaminated clothing. Rinse with water. Continue to rinse for at least 15 minutes. Wash contaminated clothing before reuse. Get medical attention if symptoms are severe or persist.

Eye contact
Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist.

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

General information
See Section 11 for additional information on health hazards.

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

Notes for the doctor
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture
Cycloheximide

**Specific hazards**
None known.

**Hazardous combustion products**
Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters**
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter’s clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents. Use protective equipment appropriate for surrounding materials.

### SECTION 6: Accidental release measures

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

**Personal precautions**
Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Avoid inhalation of dust and vapours. Provide adequate ventilation. Keep unnecessary and unprotected personnel away from the spillage.

**Environmental precautions**
Avoid discharge into drains or watercourses or onto the ground.

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

**Methods for cleaning up**
Wear protective clothing as described in Section 8 of this safety data sheet. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into suitable waste disposal containers and seal securely. Clear up spills immediately and dispose of waste safely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

#### 6.4. Reference to other sections

**Reference to other sections**
For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions**
Wear protective clothing as described in Section 8 of this safety data sheet. Wash hands thoroughly after handling. Provide adequate ventilation. Avoid generation and spreading of dust. Avoid contact with skin and eyes. Avoid inhalation of dust and vapours. Avoid exposure - obtain special instructions before use.

**Conditions for safe storage, including any incompatibilities**

**Storage precautions**
Keep container tightly closed. Store at temperatures between 2°C and 8°C.

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

**Specific end use(s)**
The identified uses for this product are detailed in Section 1.2.

### SECTION 8: Exposure Controls/personal protection

#### 8.1. Control parameters

**Occupational exposure limits**
No exposure limits known for ingredient(s).

#### 8.2. Exposure controls
Cycloheximide

**Appropriate engineering controls**
Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.

**Eye/face protection**
Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

**Hand protection**
Wear protective gloves. To protect hands from chemicals, gloves should comply with European Standard EN374.

**Other skin and body protection**
Wear appropriate clothing to prevent repeated or prolonged skin contact.

**Respiratory protection**
Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is ‘CE’-marked. Particulate filter, type P3. Particulate filters should comply with European Standard EN143. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

**Environmental exposure controls**
Keep container tightly sealed when not in use.

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**SECTION 9: Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Solid</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>White to Yellow</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
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</tr>
<tr>
<td><strong>Odour threshold</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>107 to 114°C</td>
</tr>
<tr>
<td><strong>Initial boiling point and range</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Solubility(ies)</strong></td>
<td>Slightly soluble in water.</td>
</tr>
<tr>
<td><strong>Partition coefficient</strong></td>
<td>log Pow: 0.55</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Decomposition Temperature</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>No data available</td>
</tr>
</tbody>
</table>
Cycloheximide

Explosive properties  No data available.
Oxidising properties  No data available.

9.2. Other information
Molecular weight  281.35

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity  No data available.

10.2. Chemical stability
Stability  Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions  No data available.

10.4. Conditions to avoid
Conditions to avoid  Dust/Mist

10.5. Incompatible materials
Materials to avoid  Strong oxidising agents. Alkalis. Acid anhydrides.

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral
Acute toxicity oral (LD₅₀ mg/kg)  2.0
Species  Rat
Notes (oral LD₅₀)  Acute Tox. 1 - H300 Fatal if swallowed.
ATE oral (mg/kg)  2.0

Acute toxicity - dermal
Notes (dermal LD₅₀)  Based on available data the classification criteria are not met.

Acute toxicity - inhalation
Notes (inhalation LC₅₀)  Based on available data the classification criteria are not met.

Skin corrosion/irritation
Animal data  Irritating.

Serious eye damage/irritation  Based on available data the classification criteria are not met.
Respiratory sensitisation  Based on available data the classification criteria are not met.
Skin sensitisation  --
Cycloheximide

Skin sensitisation
Based on available data the classification criteria are not met.

Germ cell mutagenicity
Genotoxicity - in vitro
Suspected of causing genetic defects.

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

IARC carcinogenicity
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
Reproductive toxicity - fertility
May damage fertility.

Reproductive toxicity - development
May damage the unborn child.

Specific target organ toxicity - single exposure
STOT - single exposure
Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure
STOT - repeated exposure
Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard
Not relevant. Solid.

General information
Avoid contact during pregnancy/while nursing. May damage fertility. May cause genetic defects. Dust may irritate the eyes and the respiratory system. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation
Dust may irritate the respiratory system. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

Ingestion
A single exposure may cause the following adverse effects: Unconsciousness, possibly death. May cause stomach pain or vomiting. May cause severe internal injury. Small amounts may cause serious damage.

Skin contact
Redness. Irritating to skin.

Eye contact
Dust may cause slight irritation.

Route of exposure
Ingestion Inhalation Skin and/or eye contact

Target organs
No specific target organs known.

RTECS #
MAA375000

SECTION 12: Ecological Information

Ecotoxicity
Toxic to aquatic life with long lasting effects.

12.1. Toxicity
This product contains a substance that has not yet been fully tested and may have unforeseen effects.

12.2. Persistence and degradability
Persistence and degradability
The degradability of the product is not known.

12.3. Bioaccumulative potential
Bioaccumulative potential
No data available on bioaccumulation.
Cycloheximide

Partition coefficient

12.4. Mobility in soil
Mobility

No data available.

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

No data available.

12.6. Other adverse effects
Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
General information

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered.

SECTION 14: Transport information

14.1. UN number
UN No. (ADR/RID) 2811
UN No. (IMDG) 2811
UN No. (ICAO) 2811
UN No. (ADN) 2811

14.2. UN proper shipping name
Proper shipping name (ADR/RID) TOXIC SOLID, ORGANIC, N.O.S. (Cycloheximide)
Proper shipping name (IMDG) TOXIC SOLID, ORGANIC, N.O.S. (Cycloheximide)
Proper shipping name (ICAO) TOXIC SOLID, ORGANIC, N.O.S. (Cycloheximide)
Proper shipping name (ADN) TOXIC SOLID, ORGANIC, N.O.S. (Cycloheximide)

14.3. Transport hazard class(es)
ADR/RID class 6.1
ADR/RID classification code T2
ADR/RID label 6.1
IMDG class 6.1
ICAO class/division 6.1
ADN class 6.1

Transport labels

14.4. Packing group
Cycloheximide

ADR/RID packing group  III
IMDG packing group  III
ADN packing group  III
ICAO packing group  III

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user
EmS  F-A, S-A
ADR transport category  2
Emergency Action Code  2X
Hazard Identification Number (ADR/RID)  60
Tunnel restriction code  (E)

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

SECTION 15: Regulatory information

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

National regulations  Health and Safety at Work etc. Act 1974 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
EH40/2005 Workplace exposure limits.


15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

SECTION 16: Other information
Cycloheximide

**Abbreviations and acronyms used in the safety data sheet**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.

IATA: International Air Transport Association.


IMDG: International Maritime Dangerous Goods.

CAS: Chemical Abstracts Service.

ATE: Acute Toxicity Estimate.

LC₅₀: Lethal Concentration to 50 % of a test population.

LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).

EC₅₀: 50% of maximal Effective Concentration.

PBT: Persistent, Bioaccumulative and Toxic substance.

vPvB: Very Persistent and Very Bioaccumulative.

**Training advice**

Only trained personnel should use this material.

**Revision date**

17/11/2017

**Revision**

1

**SDS number**

144926

**Hazard statements in full**

H300 Fatal if swallowed.

H315 Causes skin irritation.

H341 Suspected of causing genetic defects.

H360 May damage fertility or the unborn child.

H411 Toxic to aquatic life with long lasting effects.