

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 26.04.2018

Version number 2

Revision: 25.09.2017

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

**1.1 Product identifier**

· **Trade name:** Cycloheximide

· **Synonyma**

Actidione®

$\beta$ -(2-(3,5-Dimethyl-2-oxocyclohexyl)-2-hydroxyethyl]glutarimide

· **Article number:** 10700

· **CAS Number:**

66-81-9

· **EC number:**

200-636-0

· **Index number:**

613-140-00-8

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

No further relevant information available.

· **Application of the substance / the mixture** Laboratory chemicals

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

SERVA Electrophoresis GmbH

Carl-Benz-Str. 7

D-69115 Heidelberg

Tel.: +49 6221 13840-0

FAX: +49 6221 13840-10

msds.info@serva.de

· **Information department:** Product Safety department Tel.: +49 6221 13840-35

· **1.4 Emergency telephone number:**

Medical Emergency Information in case of poisoning:

Poison Information Center Mainz - Phone: +49 (0) 6131 19240

(advisory service in German or English language)

**SERVA**  
Electrophoresis

**SECTION 2: Hazards identification**

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS06

Acute Tox. 2      H300      Fatal if swallowed.



GHS08

Muta. 2              H341      Suspected of causing genetic defects.

Repr. 1B             H360D      May damage the unborn child.



GHS09

Aquatic Chronic 2      H411      Toxic to aquatic life with long lasting effects.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

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- **Hazard pictograms** GHS06, GHS08, GHS09
- **Signal word** Danger
- **Hazard statements**
  - H300 Fatal if swallowed.
  - H341 Suspected of causing genetic defects.
  - H360D May damage the unborn child.
  - H411 Toxic to aquatic life with long lasting effects.
- **Precautionary statements**
  - P201 Obtain special instructions before use.
  - P264 Wash thoroughly after handling.
  - 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.
  - P330 Rinse mouth.
- **Labelling of packages where the contents do not exceed 125 ml**
- **Hazard pictograms** GHS06, GHS08, GHS09
- **Signal word** Danger
- **Hazard statements**
  - H300 Fatal if swallowed.
  - H341 Suspected of causing genetic defects.
  - H360 May damage fertility or the unborn child.
- **Precautionary statements**
  - P280 Wear protective gloves/protective clothing/eye protection/face protection.
  - P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
  - P330 Rinse mouth.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.

**SECTION 3: Composition/information on ingredients**

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description:**
  - 66-81-9 Cycloheximide
- **Identification number(s):**
- **EC number:** 200-636-0
- **Index number:** 613-140-00-8
- **Description:**
- **Empirical formula:**  $C_{15}H_{23}NO_4$
- **MW:** 281.4

**SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
- **General information** Remove contaminated clothing.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact**
  - Immediately wash with water and soap and rinse thoroughly. Consult doctor if you feel unwell.
- **After eye contact**
  - Rinse opened eye for several minutes under running water. Remove present contact lenses, if easy to do, and continue rinsing. Consult ophthalmologist In case of complaints.
- **After swallowing**
  - Wash out the mouth and call a doctor.
  - Do not induce vomiting!

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- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

**SECTION 5: Firefighting measures**

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**  
In case of fire, the following can be formed, but not limited to:  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide and carbon dioxide
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective clothing.  
Ensure adequate ventilation  
Avoid formation of dust.
- **6.2 Environmental precautions:**  
Do not allow to enter sewers/ surface or ground water.  
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**  
Pick up mechanically.  
Dispose contaminated material as waste according to item 13.
- **6.4 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**

- **7.1 Precautions for safe handling**  
Work only in fume cupboard.  
Prevent formation of dust.  
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**  
Store only in the original receptacle.  
Store at +2 to +8 °C
- **Information about storage in one common storage facility:** Do not store together with oxidizing materials.
- **Further information about storage conditions:**  
Protect from heat and direct sunlight.  
Store under lock and key and with access restricted to technical experts or their assistants only.
- **7.3 Specific end use(s)** No further relevant information available.

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### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Avoid contact with the eyes and skin.
- **Breathing equipment:**  
Short term filter device:  
Filter P3.
- **Protection of hands:**  
Protective gloves.  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**  
Natural rubber, NR  
Nitrile rubber, NBR  
Fluorocarbon rubber (Viton)
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

<b>Form:</b>	Powder
<b>Colour:</b>	white to greyish yellow
<b>Odour:</b>	Unpleasant
- **pH-value (20 g/l) at 20 °C:** 4.1
- **Change in condition**

<b>Melting point/freezing point:</b>	98 - 112 °C
<b>Initial boiling point and boiling range:</b>	undetermined
- **Flash point:** Not applicable
- **Flammability (solid, gaseous)** Product is not flammable.

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- |   |   |
|---|---|
| · <b>Explosive properties:</b>                            | Product does not present an explosion hazard. |
| · <b>Density:</b>   | Not determined                                |
| · <b>Solubility in / Miscibility with Water at 20 °C:</b> | 20 g/l  |
| · <b>9.2 Other information</b>                            | There are no more data available.             |

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No further relevant informations available.
- **10.4 Conditions to avoid**  
exposure to the light  
high temperatures
- **10.5 Incompatible materials:**  
Avoid contact with:  
Bases  
Strong oxidizers  
Acid chlorides  
Acid anhydrides
- **10.6 Hazardous decomposition products:** In case of fire: See Section 5

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity**  
Fatal if swallowed.

· **LD/LC50 values that are relevant for classification:**

Oral	LD50	133 mg/kg (Maus)
		2 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity**  
Suspected of causing genetic defects.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity**  
May damage the unborn child.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

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- **Additional ecological information:**
- **General notes:**  
Water danger class 3 (German Regulation) (Assessment by list): extremely hazardous for water.  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.
- **12.6 Other adverse effects** No further relevant information available.

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Disposal must be made according to official regulations.
- **Uncleaned packagings:**
- **Recommendation:**  
Disposal of uncleaned packagings must be made according to official regulations in the same manner as the product.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**SECTION 14: Transport information**

- |   |   |
|---|---|
| · <b>14.1 UN-Number</b>   | UN2811  |
| · <b>ADR, IMDG, IATA</b>  |   |
| · <b>14.2 UN proper shipping name</b>   | 2811 TOXIC SOLID, ORGANIC, N.O.S. (Cycloheximide) |
| · <b>ADR</b>  | 2811 TOXIC SOLID, ORGANIC, N.O.S. (Cycloheximide) |
| · <b>IMDG</b>   | TOXIC SOLID, ORGANIC, N.O.S. (Cycloheximide)      |
| · <b>IATA</b>   | Toxic solid, organic, n.o.s. (Cycloheximide)      |
| · <b>14.3 Transport hazard class(es)</b>  |   |
| · <b>ADR</b>  |   |
|  |   |
| · <b>Class</b>  | 6.1 Toxic substances.                             |
| · <b>Label</b>  | 6.1   |
| · <b>IMDG, IATA</b>   |   |
|  |   |
| · <b>Class</b>  | 6.1 Toxic substances.                             |
| · <b>Label</b>  | 6.1   |
| · <b>14.4 Packing group</b>   |   |
| · <b>ADR, IMDG, IATA</b>  | I   |
| · <b>14.5 Environmental hazards:</b>  | Environmentally hazardous substance, solid        |
| · <b>Special marking (ADR):</b>   | Symbol (fish and tree)                            |
| · <b>14.6 Special precautions for user</b>  | Warning: Toxic substances.                        |

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· <b>Danger code (Kemler):</b>	66
· <b>EMS Number:</b>	F-A,S-A
· <b>Stowage Category</b>	B
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Limited quantities (LQ)</b>	0
· <b>Excepted quantities (EQ)</b>	Code: E5 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 300 g
· <b>Transport category</b>	1
· <b>Tunnel restriction code</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	0
· <b>Excepted quantities (EQ)</b>	Code: E5 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 300 g
· <b>UN "Model Regulation":</b>	UN2811, TOXIC SOLID, ORGANIC, N.O.S., 6.1, I

\*

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 30**
- **National regulations**
- **Information about limitation of use:**  
Employment restrictions concerning pregnant and lactating women must be observed.
- **Technical instructions (air):**

Class	Share in %
I	80-100

- **Water hazard class: Water danger class 3 (Assessment by list): extremely hazardous for water.**
- **15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**

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### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS: Product safety department**
- **Contact: +49 6221 13840-35**
- **Abbreviations and acronyms:**  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
ICAO: International Civil Aviation Organisation  
PBT: persistent, bioaccumulative, toxic substance (REACH)  
vPvB: very persistent, very bioaccumulative substance (REACH)  
REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals  
CLP: Regulation on classification, labelling and packaging of substances and mixtures  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances

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*CAS: Chemical Abstracts Service (division of the American Chemical Society)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Acute Tox. 2: Acute toxicity – Category 2**Muta. 2: Germ cell mutagenicity – Category 2**Repr. 1B: Reproductive toxicity – Category 1B**Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2***· \* Data compared to the previous version altered.**

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