

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 07/11/2025

Reviewed on 07/11/2025

1 Identification

- **Product identifier**
- **Trade name:** Acrylamide
- **CAS Number:**
79-06-1
- **Other means of identification**
- **Article number:** 10674, 10675, 10678
- **EC number:**
201-173-7
- **Index number:**
616-003-00-0
- **Application of the substance / the mixture:** Laboratory chemicals
- **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:** Security Department Phone: +49 6221 13840-34
- **Emergency telephone number:**
Emergency medical information in case of poisoning
Poison Information Center Mainz-Tel: +49 (0) 6131 19240
(Advice in German and English)



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS06

Acute toxicity - oral 3

H301 Toxic if swallowed.



GHS08

Germ cell mutagenicity 1B

H340 May cause genetic defects.

Carcinogenicity 1B

H350 May cause cancer.

Reproductive toxicity 2

H361 Suspected of damaging fertility or the unborn child.

Specific target organ toxicity (repeated exposure) 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS07

Acute toxicity - dermal 4

H312 Harmful in contact with skin.

Acute toxicity - inhalation 4

H332 Harmful if inhaled.

Skin irritation 2

H315 Causes skin irritation.

Eye irritation 2A

H319 Causes serious eye irritation.

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Sensitization - skin 1

H317 May cause an allergic skin reaction.

- **Label elements**

- **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms:** GHS06, GHS07, GHS08

- **Signal word:** Danger

- **Hazard statements:**

Toxic if swallowed.

Harmful in contact with skin or if inhaled.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause genetic defects.

May cause cancer.

Suspected of damaging fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure.

- **Precautionary statements**

Obtain special instructions before use.

Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

If swallowed: Immediately call a poison center/doctor.

If on skin: Wash with plenty of water.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

- **Information pertaining to particular dangers for man and environment:**

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 1

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = *2

Fire = 1

Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment:**

• **PBT:** Concentration of substances classified as PBT: < 0,1%

• **vPvB:** concentration of substances classified as vPvB: < 0,1%

- **Classification according to (d)(1)(ii) of § 1910.1200**

The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

- **Hazards not otherwise classified**

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

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3 Composition/information on ingredients

- **Chemical characterization: Substances**

- **CAS No. Description:**

79-06-1 acrylamide

- **Identification number(s):**

• **EC number:** 201-173-7

• **Index number:** 616-003-00-0

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- **Description:**
- **Empirical formula:** C_3H_5NO
- **MW:** 71.1

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air and to be sure call for a doctor.
- **After skin contact:**
Wash off immediately with soap and water and rinse thoroughly. In case of complaints, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes with running water. Remove existing contact lenses, if possible, and continue rinsing. In case of complaints, consult an ophthalmologist.
- **After swallowing:**
Rinse out mouth. Call a doctor immediately.
Do not induce vomiting!
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
 CO_2 extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**
Formation of hazardous vapors and gases possible during heating or in case of fire.
In case of fire, the following can be released:
Nitrogen oxides (NO_x)
Carbon monoxide and carbon dioxide
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Ensure adequate ventilation
Avoid formation of dust.
Avoid contact with eyes and skin.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up**
Dispose contaminated material as waste according to section 13.
Pick up mechanically.
- **Protective Action Criteria for Chemicals**
- **PAC-1:** 0.09 mg/m³
- **PAC-2:** 110 mg/m³
- **PAC-3:** 600 mg/m³

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· **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.

7 Handling and storage

· **Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Residues sublime easily. Do not inhale vapours.

Skin absorbable. Avoid contact with eyes and skin.

Open and handle receptacle with care.

Restrict the quantity stored at the work place.

Prevent formation of dust.

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Keep respiratory protective device available.

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

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.

Storage at +2 to +8 °C

· **Information about storage in one common storage facility:** Store away from oxidizing agents.

· **Further information about storage conditions:**

Store under lock and key and with access restricted to technical experts or their assistants only.

Store container tightly closed and dry.

Protect from exposure to the light.

· **Specific end use(s):** No other specific uses as mentioned in section 1.2..

8 Exposure controls/personal protection

· **Control parameters**

DMEL systemic long-term effects by inhalation: 0,07 mg/m³

DMEL systemic long-term effects , dermal: 0,1 mg/kg/day

· **Components with limit values that require monitoring at the workplace:**

no further relevant information available

79-06-1 acrylamide (80-100%)

PEL Long-term value: 0.3 mg/m³
Skin

REL Long-term value: 0.03 mg/m³
Skin; See Pocket Guide App. A

TLV Long-term value: 0.03* mg/m³, 0.01* ppm
DSEN,Skin,*inhalable fraction +vapor, A2, BEI

· **Ingredients with biological limit values:**

79-06-1 acrylamide (80-100%)

BEI 500 pmol/g globin*
Medium: blood
Time: Not critical
Parameter: N-(2-Carbamoylethyl)valine (background)

800 µg/g creatinine
Medium: urine
Time: End of shift
Parameter: S-(2-Carbamoylethyl)mercapturic acid (background)

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- **Additional information:**
skin absorbable
The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Appropriate engineering controls** *No further data; see section 7.*
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Collect residual Acrylamide separately.
Disposal considerations see section 13.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Store protective clothing separately.
Avoid contact with the eyes and skin.
Wash hands before breaks and at the end of work.
- **Breathing equipment:**
Short term filter device:
Filter P3
- **Protection of hands:**
PVC gloves
Neoprene gloves
Internal tests have shown that some rubber gloves may be subject to permeability to acrylamide. We suggest using neoprene gloves.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Protective gloves
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:**
PVC gloves
Neoprene gloves
- **Eye protection:** *Tightly sealed goggles*
- **Body protection:** *Protective work clothing*
- **Limitation and supervision of exposure into the environment**
Ecological informations see section 12.
Do not exceed PNEC.

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9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information:**
- **Physical state** *Solid*
- **Color:** *White*
- **Odor:** *Odorless*
- **Odor threshold:** *not determined.*
- **Melting point/Melting range:** *82-86 °C (179.6-186.8 °F)*
- **Boiling point/Boiling range:** *125 °C (33 hPa)*

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· Flammability:	Based on available data, the classification criteria for flammable solids are not met.
· Explosion limits:	
· Lower:	No information available
· Upper:	No information available
· Flash point:	138 °C (280.4 °F)
· Decomposition temperature:	No information available
· pH-value:	5-8
· Viscosity:	
· Kinematic:	No information available
· Dynamic:	No information available
· Solubility in / Miscibility with:	
· Water at 25 °C (77 °F):	2040 g/l
· Partition coefficient (n-octanol/water):	Log P _{ow} = -0.67
· Vapor pressure at 25 °C (77 °F):	0.09 hPa (0.1 mm Hg)
· Vapor pressure:	
· Density at 20 °C (68 °F):	1.13 g/cm ³ (9.42985 lbs/gal)
· Relative density:	No information available
· Particle characteristics	No information available
· Other information	
· Appearance:	
· Form:	Crystalline
· Important information on protection of health and environment, and on safety:	
· Danger of explosion:	The product is not explosive, but the formation of explosive dust/air mixtures is possible.

10 Stability and reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:** polymerizes when heated.
- **Possibility of hazardous reactions:**
As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion.
Exothermic polymerization.
Reacts with oxidizing agents.
- **Conditions to avoid:**
High temperatures
Exposure to light
- **Incompatible materials:**
Avoid contact with:
Oxidizing agents, acids, bases
- **Hazardous decomposition products:** In case of fire: see section 5

11 Toxicological information

- **Information on toxicological effects**
 - **Acute toxicity:**
 - **LD/LC50 values that are relevant for classification:**
- | | | |
|--------|------|-------------------|
| Oral | LD50 | 177 mg/kg (rat) |
| Dermal | LD50 | 1,141 mg/kg (rat) |
- **Primary irritant effect:**
 - **on the skin:** Irritant to skin and mucous membranes.

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- **on the eye:**
Eye irritant because of test results according to OECD Test Guideline 405.
Irritating effect.
- **Sensitization:**
Skin sensitizer because of test results according to OECD TG 406.
Sensitization possible through skin contact.
- **Other information (about experimental toxicology)**
Acrylamide, EC Number: 201-173-7, CAS number: 79-06-1, is identified as a carcinogenic and mutagenic substance according to Article 57 (a) and (b) of Regulation (EC) No 1907/2006 (REACH).
This corresponds to a classification as carcinogen (1B) and mutagen (1B) in Annex VI, part 3, Table 3.1 of Regulation (EC) No 1272/2008 (list of harmonised classification and labelling of hazardous substances).
(ECHA SVHC Support Document - Acrylamide; Page 2)
STOT RE: long-term toxicity (OECD TG 453, two-year study, rat, oral) NOAEL: 0,5 mg/kg bw/d
- **Additional toxicological information:**
- **Interactive effects** No interactive effects between components are known.
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** 2A
- **NTP (National Toxicology Program)** R
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.
- **Alternative sources for toxicological information**
No non-standard sources for toxicological information where used.

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12 Ecological information

- **Toxicity:**
- **Aquatic toxicity:**
Acute toxicity to fish: LC50/96h: 180 mg/l (oncorhynchus mykiss)
Long-term toxicity to fish: NOEC: >5 mg/l (28 d)
Acute toxicity to daphnia magna: NOEC: 60 mg/l 48h (behaviour)
Toxicity to algae: IC50: 33,8 mg/l 72h (biomass)
- **Persistence and degradability:**
Easily biodegradable
Screening test (closed bottle test, OECD test method 301D): Approximately 100 % biodegradable after 28 days.
- **Bioaccumulative potential:** No relevant bioaccumulation is expected because of log POW = -0,9.
- **Mobility in soil:** No further relevant information available.
- **Results of PBT and vPvB assessment:**
- **PBT:** Concentration of substances classified as PBT: < 0,1%
- **vPvB:** Concentration of substances classified as vPvB: < 0.1%
- **Other adverse effects:**
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Water hazard class 3 (Assessment by list): extremely hazardous for water

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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Dispose of in accordance with official regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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· **Uncleaned packagings:**· **Recommendation:**

Uncleaned packaging must be disposed of in the same way as the product in accordance with official regulations.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **UN-Number**· **DOT, ADR, IMDG, IATA**

UN2074

· **UN proper shipping name**· **DOT**

Acrylamide, solid

· **ADR**

2074 ACRYLAMIDE, SOLID

· **IMDG, IATA**

ACRYLAMIDE, SOLID

· **Transport hazard class(es)**· **DOT**· **Class**

6.1 Toxic substances

· **Label**

6.1

· **ADR, IMDG, IATA**· **Class:**

6.1 Toxic substances

· **Label:**

6.1

· **Packing group**· **DOT, ADR, IMDG, IATA**

III

· **Environmental hazards**· **Marine pollutant:**

No

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **DOT**· **Remarks:**

Lösung: EmS 6.1-02

· **ADR**· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· **IMDG**· **Limited quantities (LQ)**

5 kg

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· **Special precautions for user**

Warning: Toxic substances

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- **Hazard identification number (Kemler code):** 60
- **EMS Number:** F-A,S-A
- **Stowage Category** A
- **Stowage Code** SW1 Protected from sources of heat.
- **Handling Code** H2 Keep as cool as reasonably practicable
- **UN "Model Regulation":** UN 2074 ACRYLAMIDE, SOLID, 6.1, III

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Section 355 (extremely hazardous substances):** Substance is listed.
- **Section 313 (Specific toxic chemical listings):** Substance is listed.
- **TSCA (Toxic Substances Control Act):** ACTIVE
- **Hazardous Air Pollutants** Substance is listed.
- **Proposition 65** Substance is not listed.
- **Chemicals known to cause cancer:** Substance is listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is listed.
- **Chemicals known to cause developmental toxicity:** Substance is listed.
- **Carcinogenicity categories**
- **EPA (Environmental Protection Agency) L**
- **TLV (Threshold Limit Value) A3**
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is listed.
- **GHS label elements**
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS06, GHS07, GHS08
- **Signal word** Danger
- **Hazard statements**
Toxic if swallowed.
Harmful in contact with skin or if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
May cause genetic defects.
May cause cancer.
Suspected of damaging fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure.
- **Precautionary statements**
Obtain special instructions before use.
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
If swallowed: Immediately call a poison center/doctor.
If on skin: Wash with plenty of water.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
- **National regulations:**
- **Information about limitation of use:**
Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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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 13840-34

· **Date of previous version** 10/27/2022

· **Date of preparation** 07/11/2025

· **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

SVHC: Substance of Very High Concern (REACH)

DMEL: Derived Minimal Effect Level

NOAEL: No observed adverse effect level

NOEC: no observed effect level concentration

PBT: persistent, bioaccumulative, toxic substance (REACH)

vPvB: very persistent, very bioaccumulative substance (REACH)

IC50: inhibitory concentration, 50 percent

EC50: effective concentration, 50 percent

REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

CLP: Regulation on classification, labelling and packaging of substances and mixtures

bw: body weight

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Acute toxicity - oral 3: Acute toxicity – Category 3

Acute toxicity - dermal 4: Acute toxicity – Category 4

Skin irritation 2: Skin corrosion/irritation – Category 2

Eye irritation 2A: Serious eye damage/eye irritation – Category 2A

Sensitization - skin 1: Skin sensitisation – Category 1

Germ cell mutagenicity 1B: Germ cell mutagenicity – Category 1B

Carcinogenicity 1B: Carcinogenicity – Category 1B

Reproductive toxicity 2: Reproductive toxicity – Category 2

Specific target organ toxicity (repeated exposure) 1: Specific target organ toxicity (repeated exposure) – Category 1