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

Printing date 24.11.2011 Version number 1 Revision: 04.10.2011

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## 1 Identification of the substance/mixture and of the company/undertaking

· **1.1. Product identifier**

· **Trade name:** **Acrylamide-Bis Premix 5% C**

· **Article number:** 10685
· **1.2. Relevant identified uses of the substance or mixture and uses advised against**
· **Application of the substance / the preparation** 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:** +49 6131 19240 (university hospital Mainz)

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## 2 Hazards identification

· **2.1. Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**

GHS06

| | | |
|---|---|---|
| Acute Tox. 3 | H301 | Toxic if swallowed. |

GHS08

| | | |
|---|---|---|
| Muta. 1B | H340 | May cause genetic defects. |
| Carc. 1B | H350 | May cause cancer. |
| Repr. 2 | H361f | Suspected of damaging fertility. |
| STOT RE 1 | H372 | Causes damage to organs through prolonged or repeated exposure. |

GHS07

| | | |
|---|---|---|
| Acute Tox. 4 | H312 | Harmful in contact with skin. |
| Acute Tox. 4 | H332 | Harmful if inhaled. |
| Skin Irrit. 2 | H315 | Causes skin irritation. |
| Eye Irrit. 2 | H319 | Causes serious eye irritation. |
| Skin Sens. 1 | H317 | May cause an allergic skin reaction. |

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

T; Toxic

R45-46-25-48/23/24/25: May cause cancer. May cause heritable genetic damage. Toxic if swallowed. Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

Xn; Harmful

R20/21-62: Harmful by inhalation and in contact with skin. Possible risk of impaired fertility.

Xi; Irritant

R36/38: Irritating to eyes and skin.

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SERVA Electrophoresis GmbH

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*Xi; Sensitising*

*R43: May cause sensitisation by skin contact.*

· **Information concerning particular hazards for human and environment:**
*The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.*

· **Classification system:**
*The classification was made according to the latest editions of the EU-lists, and expanded upon fom company and literature data.*

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· **2.2. Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**
*The product is classified and labelled according to the CLP regulation.*

· **Hazard pictograms** *GHS06, GHS08*

· **Signal word** *Danger*

· **Hazard-determining components of labelling:**
*acrylamide*
*N,N'-methylenediacrylamide*

· **Hazard statements**
*H301 Toxic if swallowed.*
*H312 Harmful in contact with skin.*
*H332 Harmful if inhaled.*
*H315 Causes skin irritation.*
*H319 Causes serious eye irritation.*
*H317 May cause an allergic skin reaction.*
*H340 May cause genetic defects.*
*H350 May cause cancer.*
*H361f Suspected of damaging fertility.*
*H372 Causes damage to organs through prolonged or repeated exposure.*

· **Precautionary statements**

| | |
|---|---|
| *P280* | *Wear protective gloves/protective clothing/eye protection/face protection.* |
| *P201* | *Obtain special instructions before use.* |
| *P301+P310* | *IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.* |
| *P304+P340* | *IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.* |
| *P305+P351+P338* | *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.* |
| *P405* | *Store locked up.* |

· **2.3. Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** *Not applicable.*

· **vPvB:** *Not applicable.*

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## 3 Composition/information on ingredients

· **3.2. Chemical characterization: Mixtures**

· **Description:** *Mixture of the substances listed below with harmless additions.*

· **Dangerous components:**

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| | | |
|---|---|---|
| | acrylamide<br>T Carc. Cat. 2, Muta. Cat. 2 R45-46-25-48/23/24/25; Xn R20/21-62; Xi R36/38; Xi R43<br>Repr. Cat. 3<br>Acute Tox. 3, H301; Muta. 1B, H340; Carc. 1B, H350; Repr. 2, H361f; STOT RE 1, H372; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 | 80-100% |
| CAS: 110-26-9<br>EINECS: 203-750-9 | N,N'-methylenediacrylamide<br>Xn R22<br>Acute Tox. 4, H302 | 2.5-7% |

· **Additional information** For the wording of the listed risk phrases refer to section 16.

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## 4 First aid measures

· **4.1. Description of first aid measures**
· **General information**
Take affected persons out of danger area and lay down.
Remove contaminated clothing.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· **After inhalation** Supply fresh air and to be sure call for a doctor.
· **After skin contact** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact**
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
· **After swallowing** Drink copious amounts of water and provide fresh air. Call for doctor immediately.
· **Information for doctor**
· **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.

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## 5 Firefighting measures

· **5.1. Extinguishing media**
· **Suitable extinguishing agents**
Use fire fighting measures that suit the environment.
Water spray
Foam
· **5.2. Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Nitrogen oxides (NOx)
Carbon monoxide (CO)
· **5.3. Advice for firefighters**
· **Protective equipment:** Wear self-contained respiratory protective device.

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## 6 Accidental release measures

· **6.1. Personal precautions, protective equipment and emergency procedures**
Not required.
Wear protective clothing.
· **6.2. Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **6.3. Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Pick up mechanically.

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· **6.4. Reference to other sections**
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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## 7 Handling and storage

· **Handling**
· **7.1. Precautions for safe handling**
Prevent formation of dust.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
· **Information about protection against explosions and fires:**
Keep respiratory protective device available.
Keep ignition sources away - Do not smoke.
Dust can combine with air to form an explosive mixture.

· **7.2. Conditions for safe storage, including any incompatibilities**
· **Storage**
· **Requirements to be met by storerooms and receptacles:** Store in a cool location.
· **Information about storage in one common storage facility:**
Store away from flammable substances.
Store away from oxidizing agents.
· **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
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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## 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:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **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:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Short term filter device:
Filter P3.
· **Protection of hands:**
Rubber gloves
Neoprene gloves
Internal tests have shown that some rubber gloves may be subject to permeability to Acrylamide solution.
We suggest using neoprene gloves.
Protective gloves.

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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 trough 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:**
Neoprene gloves

· **Eye protection:** Tightly sealed goggles.

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## 9 Physical and chemical properties

| | |
|---|---|
| · **9.1. Information on basic physical and chemical properties** | |
| · **General Information** | |
| · **Appearance:** | |
| **Form:** | Crystalline powder |
| **Colour:** | White |
| · **Odour:** | Characteristic |
| · **pH-value (5 g/l) at 20°C:** | 4 |
| · **Change in condition** | |
| **Melting point/Melting range:** | 84-85°C |
| **Boiling point/Boiling range:** | undetermined |
| · **Flash point:** | 138°C |
| · **Ignition temperature:** | 424°C |
| · **Self igniting:** | Product is not selfigniting. |
| · **Danger of explosion:** | Product does not present an explosion hazard. |
| · **Vapour pressure at 20°C:** | 0.009 hPa |
| · **Density at 20°C:** | 1.03 g/cm³ |
| · **Solubility in / Miscibility with** | |
| **Water at 25°C:** | 2040 g/l |
| · **Solvent content:** | |
| **Organic solvents:** | 0.0 % |
| **Solids content:** | 100.0 % |
| · **9.2. Other information** | No further relevant information available. |

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## 10 Stability and reactivity

· **10.1. Reactivity**
· **10.2. Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **10.3. Possibility of hazardous reactions**
Exothermic polymerisation
Reacts with oxidizing agents
· **10.4. Conditions to avoid** No further relevant information available.

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· **10.5. Incompatible materials:** No further relevant information available.
· **10.6. Hazardous decomposition products:**
Nitrogen oxides
Carbon monoxide and carbon dioxide

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## 11 Toxicological information

· **11.1. Information on toxicological effects**
· **Acute toxicity:**

| · **LD/LC50 values that are relevant for classification:** | | |
|---|---|---|
| **acrylamide** | | |
| Oral | LD50 | 124 mg/kg (rat) |
| Dermal | LD50 | 400 mg/kg (rat) |
| **110-26-9 N,N'-methylenediacrylamide** | | |
| Oral | LD50 | 390 mg/kg (rat) |

· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** Irritating effect.
· **Sensitization:** Sensitization possible through skin contact.
· **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Toxic
Harmful
Irritant
Carcinogenic
The product can cause inheritable damage.

## 12 Ecological information

· **12.1. Toxicity**
· **Acquatic toxicity:** No further relevant information available.
· **12.2. Persistence and degradability** No further relevant information available.
· **Behaviour in environmental systems:**
· **12.3. Bioaccumulative potential** No further relevant information available.
· **12.4. Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
· **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.

## 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.

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· **Uncleaned packagings:**
· **Recommendation:** *Disposal must be made according to official regulations.*

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## 14 Transport information

| | |
|---|---|
| · **14.1. UN-Number** | |
| · **ADR, IMDG, IATA** | *2074* |
| · **14.2. UN proper shipping name** | |
| · **IMDG** | *ACRYLAMIDE, SOLID, mixture* |
| · **IATA** | *ACRYLAMIDE, mixture* |
| · **14.3. Transport hazard class(es)** | |
| · **ADR** | |

| | |
|---|---|
| · **Class** | *6.1 Toxic substances.* |
| · **Label** | *6.1* |
| · **IMDG, IATA** | |

| | |
|---|---|
| · **Class** | *6.1 Toxic substances.* |
| · **Label** | *6.1* |
| · **14.4. Packing group** | |
| · **ADR, IMDG, IATA** | *III* |
| · **14.5. Environmental hazards:** | |
| · **Marine pollutant:** | *No* |
| · **14.6. Special precautions for user** | *Warning: Toxic substances.* |
| · **Danger code (Kemler):** | *60* |
| · **EMS Number:** | *F-A,S-A* |
| · **14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** | *Not applicable.* |
| · **UN "Model Regulation":** | *UN2074, ACRYLAMIDE, SOLID, mixture, 6.1, III* |

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## 15 Regulatory information

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

· **National regulations**

· **Water hazard class:** *Water danger class 3 (Self-assessment): extremely hazardous for water.*
· **15.2. 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.*

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· **Relevant phrases**

| | |
|---|---|
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H340 | May cause genetic defects. |
| H350 | May cause cancer. |
| H361f | Suspected of damaging fertility. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| R20/21 | Harmful by inhalation and in contact with skin. |
| R22 | Harmful if swallowed. |
| R25 | Toxic if swallowed. |
| R36/38 | Irritating to eyes and skin. |
| R43 | May cause sensitisation by skin contact. |
| R45 | May cause cancer. |
| R46 | May cause heritable genetic damage. |
| R48/23/24/25 | Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. |
| R62 | Possible risk of impaired fertility. |

· **Department issuing MSDS:** Product safety department
· **Contact:** +49 6221 13840-35
· **Abbreviations and acronyms:**
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)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
· *** Data compared to the previous version altered.**