# 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 4% C**

· **Article number:** 10684
· **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.*

· ***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:***

| | | |
|---|---|---|
| | *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%* |



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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.
In case of irregular breathing or respiratory arrest provide artificial respiration.
· **After inhalation** Supply fresh air; consult doctor in case of complaints.
· **After skin contact** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact** Rinse opened eye for several minutes under running water. Then 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** No further relevant information available.
· **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** 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.
· **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**
Open and handle receptacle with care.
Prevent formation of dust.
· **Information about protection against explosions and fires:**
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.

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· ***Further information about storage conditions:***
*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:***
*Protective gloves.*
*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.*
· ***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.*
· ***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.*
· ***Body protection:*** *Protective work clothing.*

## 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*

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| | |
|---|---|
| · ***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 mbar* |
| · ***Density at 20°C:*** | *1.03 g/cm3* |
| · ***Solubility in / Miscibility with Water at 20°C:*** | *2100 g/l* |
| · ***9.2. Other information*** | *No further relevant information available.* |

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

* 
## *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:***
*Danger through skin resorption.*
*Toxic*
*Carcinogenic*
*The product can cause inheritable damage.*
*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:*

## *12 Ecological information*

· ***12.1. Toxicity***
· ***Acquatic toxicity:*** *No further relevant information available.*

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· ***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.*

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

* 
## 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* |
| · ***14.6. Special precautions for user*** | *Warning: Toxic substances.* |
| · ***Danger code (Kemler):*** | *60* |
| · ***EMS Number:*** | *F-A,S-A* |

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| | |
|---|---|
| · ***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.*

## *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.*

· ***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:***
*Safety Department*
*Carl-Benz-Str. 7*
*D-69115 Heidelberg*
· ***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*

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*LC50: Lethal concentration, 50 percent*
*LD50: Lethal dose, 50 percent*

· **** Data compared to the previous version altered.***