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

*Printing date 27.02.2020* *Version number 3* *Revision: 27.02.2020*

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

· **1.1 Product identifier**

· **Trade name: Acrylamide/Bis Solution 37,5:1**

· **Article number:** 10688
· **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)

* 
## SECTION 2: Hazards identification

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

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 | H302 | Harmful if swallowed. |
| 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. |

· **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** GHS07, GHS08
· **Signal word** Danger

· **Hazard-determining components of labelling:**
acrylamide
N,N'-methylenediacrylamide
· **Hazard statements**
H302 Harmful if swallowed.
H315 Causes skin irritation.

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*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***
*P201 Obtain special instructions before use.*
*P264 Wash thoroughly after handling.*
*P280 Wear protective gloves/protective clothing/eye protection/face protection.*
*P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.*
*P302+P352 IF ON SKIN: Wash with plenty of soap and water.*
*P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

· ***Labelling of packages where the contents do not exceed 125 ml***
· ***Hazard pictograms*** *GHS07, GHS08*
· ***Signal word*** *Danger*

· ***Hazard-determining components of labelling:***
*acrylamide*
*N,N'-methylenediacrylamide*
· ***Hazard statements***
*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.*
*P302+P352 IF ON SKIN: Wash with plenty of soap and water.*
*P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
· ***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*

· ***3.2 Chemical characterisation: Mixtures***
· ***Description:*** *Mixture of the substances listed below with harmless additions.*

| · ***Dangerous components:*** | | |
|---|---|---|
| *CAS: 79-06-1*<br>*EINECS: 201-173-7* | *acrylamide*<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* | *15-30%* |
| *CAS: 110-26-9*<br>*EINECS: 203-750-9* | *N,N'-methylenediacrylamide*<br>*Acute Tox. 4, H302* | *1-3%* |

| · ***SVHC*** | |
|---|---|
| *79-06-1* | *acrylamide* |

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



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## SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **General information**
Take affected persons out into the fresh air.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove contaminated clothing.
In case of irregular breathing or respiratory arrest provide artificial respiration.
· **After inhalation**
In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air and to be sure call for a doctor.
· **After skin contact**
Immediate wash with copious amounts of water and soap; rinse thoroughly; seek medical advice.
· **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 immediately.
· **After swallowing**
Wash out mouth instantly. Drink copious amounts of water and provide fresh air. Call for doctor immediately.
Do not induce vomiting!
· **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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## SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents**
$CO_2$, 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** No further relevant information available.
· **5.3 Advice for firefighters**
· **Protective equipment:** Wear self-contained respiratory protective device.

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## SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Ensure adequate ventilation
· **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.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
· **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**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.

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· ***Information about protection against explosions and fires:***
*The product is not flammable*
*Keep respiratory protective device available.*

· ***7.2 Conditions for safe storage, including any incompatibilities***
· ***Storage***
· ***Requirements to be met by storerooms and receptacles:***
*Store at +2 to +8 °C*
*Store only in unopened original receptacles.*
· ***Information about storage in one common storage facility:*** *Store away from oxidising agents.*
· ***Further information about storage conditions:***
*Store under lock and key and with access restricted to technical experts or their assistants only.*
*Keep receptacle tightly sealed and store in dry conditions.*
· ***7.3 Specific end use(s)*** *No further relevant information available.*

* 
## *SECTION 8: Exposure controls/personal protection*

· ***Additional information about design of technical systems:*** *No further data; see item 7.*

· ***8.1 Control parameters***
*DMELs*
*DMEL (Acrylamide, CAS No. 79-06-1) systemic long-term effects by inhalation: 0,07 mg/m³*
*DMEL (Acrylamide, CAS No. 79-06-1) systemic long-term effects , dermal: 0,1 mg/kg/day*

| · ***Components with limit values that require monitoring at the workplace:*** | |
|---|---|
| ***79-06-1 acrylamide (15-30%)*** | |
| *WEL* | *Long-term value: 0.3 mg/m³*<br>*Carc; Sk* |

· ***PNECs***
*PNEC (Acrylamide, CAS No. 79-06-1) fresh water for permanent discharge: 0,03 mg/l*
*PNEC (Acrylamide, CAS No. 79-06-1) fresh water for occasiional discharge: 0,3 mg/l*
*PNEC (Acrylamide, CAS No. 79-06-1) sewage treatment plant: 0,2 mg/l*
· ***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 A/P3*
· ***Protection of hands:***
*Neoprene gloves*
*PVC gloves*
*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*
*PVC (0.5 mm) Butyl (0.5 mm)*
*max. 8 h*

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· ***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.*
*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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.*
· ***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:***
*PVC gloves*
*Neoprene gloves*
· ***Eye protection:*** *Tightly sealed goggles.*
· ***Body protection:*** *Protective work clothing.*

* 
## SECTION 9: Physical and chemical properties

| | |
|---|---|
| · ***9.1 Information on basic physical and chemical properties*** | |
| · ***General Information*** | |
| · ***Appearance:*** | |
| ***Form:*** | *Solution* |
| ***Colour:*** | *Colourless* |
| · ***Odour:*** | *Characteristic* |
| · ***Odour threshold:*** | *Not determined.* |
| · ***pH-value at 20 °C:*** | *6-8* |
| · ***Change in condition*** | |
| ***Melting point/freezing point:*** | *undetermined* |
| ***Initial boiling point and boiling range:*** | *undetermined* |
| · ***Flash point:*** | *Not applicable* |
| · ***Flammability (solid, gaseous)*** | *Not applicable.* |
| · ***Decomposition temperature:*** | *Not determined.* |
| · ***Self igniting:*** | *Product is not selfigniting.* |
| · ***Explosive properties:*** | *Product does not present an explosion hazard.* |
| · ***Explosion limits:*** | |
| ***Lower:*** | *Not determined.* |
| ***Upper:*** | *Not determined.* |
| · ***Vapour pressure:*** | *Not determined.* |
| · ***Density at 20 °C:*** | *1.04 g/cm³* |
| · ***Relative density*** | *Not determined.* |
| · ***Vapour density*** | *Not determined.* |
| · ***Evaporation rate*** | *Not determined.* |
| · ***Solubility in / Miscibility with*** | |
| ***Water:*** | *Fully miscible* |
| · ***Partition coefficient: n-octanol/water:*** | *Not determined.* |
| · ***Viscosity:*** | |
| ***dynamic:*** | *Not determined.* |
| ***kinematic:*** | *Not determined.* |

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| · **Solvent content:** | |
|---|---|
| **Solids content:** | 30.0 % |
| · **9.2 Other information** | No further relevant information available. |

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## 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** No further relevant information available.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:**
No further relevant informations available.
In case of fire: See Section 5

* 
## SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity**
Harmful if swallowed.

| · **LD/LC50 values that are relevant for classification:** | | |
|---|---|---|
| **79-06-1 acrylamide** | | |
| Oral | LD50 | 177 mg/kg (rat) |
| Dermal | LD50 | 1,141 mg/kg (rat) |

· **Primary irritant effect:**
· **Skin corrosion/irritation**
Causes skin irritation.
· **Serious eye damage/irritation**
Causes serious eye irritation.
· **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
· **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)
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
· **Germ cell mutagenicity**
May cause genetic defects.
· **Carcinogenicity**
May cause cancer.
· **Reproductive toxicity**
Suspected of damaging fertility.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure**
Causes damage to organs through prolonged or repeated exposure.
· **Aspiration hazard** Based on available data, the classification criteria are not met.



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## 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.
· **Additional ecological information:**
· **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.
· **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**
Disposal must be made according to official regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **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

| | |
|---|---|
| · **14.1 UN-Number** | |
| · **ADR, IMDG, IATA** | UN3426 |
| · **14.2 UN proper shipping name** | |
| · **ADR** | 3426 ACRYLAMIDE SOLUTION |
| · **IMDG, IATA** | ACRYLAMIDE SOLUTION |
| · **14.3 Transport hazard class(es)** | |
| · **ADR, 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. |
| · **Hazard identification number (Kemler code):** | 60 |
| · **Stowage Category** | A |
| · **Stowage Code** | SW1 Protected from sources of heat. |

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| | |
|---|---|
| · **Handling Code** | H2 Keep as cool as reasonably practicable |
| · **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** | Not applicable. |
| · **Transport/Additional information:** | |
| · **ADR** | |
| · **Limited quantities (LQ)** | 5L |
| · **Excepted quantities (EQ)** | Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| · **Transport category** | 2 |
| · **Tunnel restriction code** | E |
| · **IMDG** | |
| · **Limited quantities (LQ)** | 5L |
| · **Excepted quantities (EQ)** | Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| · **UN "Model Regulation":** | UN 3426 ACRYLAMIDE SOLUTION, 6.1, III |

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## SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 28, 29, 60

· **National regulations**

· **Information about limitation of use:**
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· **Technical instructions (air):**

| Class | Share in % |
|---|---|
| II | 15-30 |

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

· **Other regulations, limitations and prohibitive regulations**

| · **Substances of very high concern (SVHC) according to REACH, Article 57** | |
|---|---|
| 79-06-1 | acrylamide |

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

* 
## 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.

· **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.

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*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.*

· ***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*
*bw: body weight*
*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*
*ELINCS: European List of Notified Chemical Substances*
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*
*PNEC: Predicted No-Effect Concentration (REACH)*
*LC50: Lethal concentration, 50 percent*
*LD50: Lethal dose, 50 percent*
*PBT: Persistent, Bioaccumulative and Toxic*
*SVHC: Substances of Very High Concern*
*vPvB: very Persistent and very Bioaccumulative*
*Acute Tox. 3: Acute toxicity - oral – Category 3*
*Acute Tox. 4: Acute toxicity - dermal – Category 4*
*Skin Irrit. 2: Skin corrosion/irritation – Category 2*
*Eye Irrit. 2: Serious eye damage/eye irritation – Category 2*
*Skin Sens. 1: Skin sensitisation – Category 1*
*Muta. 1B: Germ cell mutagenicity – Category 1B*
*Carc. 1B: Carcinogenicity – Category 1B*
*Repr. 2: Reproductive toxicity – Category 2*
*STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1*
· **** Data compared to the previous version altered.***