



# MATERIAL SAFETY DATA SHEET

Prepared in accordance to article 31 of EU regulation 1907/2006/EC

## 1. Identification of the substance/preparation and of the company/undertaking

### Product details

- 1.1. Product Name: Acrylamide/Bisacrylamide Solution  
1.2. Article Number: GB16.4029, GB16.4019, GB16.4037, GB16.4029, GB16.4019, GB16.4037  
1.3. Application of the preparation: Laboratory chemicals, for research only. Not intended for human or animal diagnostics, therapeutics or other clinical uses.

### Company/Undertaking Identification

- 1.4. Manufacturer/Supplier: GRISP, Lda.  
Edifício Inovar e Crescer  
Rua Alfredo Allen, 455|461  
4200-135 PORTO, Portugal  
Tel: +351-220301599  
Fax: +351-220301597  
E-mail: [info@grisp.pt](mailto:info@grisp.pt)  
1.5. Emergency telephone: +351-808 250143 (Poison Information Centre, CIAV, Lisbon)

## 2. Hazards identification

### 2.1 Classification of the substance or mixture

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

- T - Toxic R45, R46, R25, R48/23/24/25: 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, R62: Harmful by inhalation and in contact with skin. Possible risk of impaired fertility.  
Xi - Irritant R36/38, R43: Irritating to eyes and skin. May cause sensitization by skin contact-

### Risk phrases:

- 45 May cause cancer.  
46 May cause heritable genetic damage  
25 Toxic if swallowed.  
48/23/24/25 Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.  
20/21 Harmful by inhalation and in contact with skin.  
62 Possible risk of impaired fertility.  
36/38 Irritating to eyes and skin.  
43 May cause sensitization by skin contact

### Safety phrases:

- 53 Avoid exposure – obtain special instructions before use.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
36/37/39 Wear suitable protective clothing, gloves and eye/face protection  
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
60 This material and its container must be disposed of as hazardous waste.

## Label elements

Labelling according to Regulation (EC) N° 1272/2008

### CLP

Hazard pictograms:



Signal word:

Danger

### Health Hazard

Acute oral toxicity:	Category 3
Acute inhalation toxicity – Dusts and Mists:	Category 2
Skin corrosion/irritation:	Category 2
Skin sensitization	Category 1
Serious eye damage/eye irritation:	Category 2
Specific target organ systemic toxicity (repeated exposure):	Category 1
Germ cell mutagenicity:	Category 1B
Carcinogenicity:	Category 1B
Reproductive Toxicity:	Category 2

### Hazard statements:

H301	Toxic if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H340	May cause genetic defects.
H350	May cause cancer.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure

### Precautionary statements:

Response:

P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

.Prevention:

P201	Obtain special instructions before use.
P260	Do not breathe dust / fume / gas /mist / vapours /spray
P280	Wear protective gloves
P284	Wear respiratory protection.
P273	Avoid release to the environment

Hazard-determining components of the labelling: acrylamide

### Other hazards

Results of PBT and vPvB assessment

PBT:	Not applicable
vPvB:	Not applicable

### 3 Composition/information on ingredients

3.1 Description: Aqueous Solution of Acrylamide and N,N'-Methylenediacylamide

#### 3.2 Components

- |       |  |        |
|-------|--|--------|
| 3.2.1 | Acrylamide (CAS: 79-06-1, EINECS: 201-173-7):  | 25-50% |
|       | N,N'-Methylenediacylamide (CAS: 110-26-9, EINECS: 203-750-9):  | < 10%  |
| 3.2.2 | All other components not listed here are either not dangerous or their concentration do not exceed the limits specified in the EU directive 1999/45/EC |        |
| 3.2.3 | Acrylamide is included in the candidate list of substances of very high concern (SVHC) according to regulation (EC) N° 1907/2006 (REACH)               |        |

### 4 First aid measures

- 4.1 General Information: Immediately remove any clothing soiled by the product. Symptoms of poisoning may occur after several hours; therefore medical observation for at least 48 hours after the accident. In case of irregular breathing or respiratory arrest provide artificial respiration.
- 4.2 Inhalation: Toxic by inhalation. Supply fresh air. Call a doctor/physician immediately. If not breathing, give artificial respiration. In case of unconsciousness, place patient stably in side position for transportation.
- 4.3 Skin contact: Immediately wash skin with soap and flush with large amounts of water. Remove all contaminated clothes.
- 4.4 Eye contact: Immediately rinse opened eyes with large amounts of water during at least 15 minutes. Remove contact lenses. Get medical attention in case eye(s) remain irritated
- 4.5 Ingestion: Call a doctor/physician or Poison Control Centre immediately. Rinse mouth with water, repeatedly. Do not induce vomiting.

### 5 Fire-fighting measures

- 5.1 Suitable extinguishing agents: CO<sub>2</sub>, powder or water spray or alcohol resistant foam.
- 5.2 Protective Equipment: Wear suitable respiratory equipment and protective clothes.

### 6 Accidental release measures

- 6.1 Person-related safety measurements: Avoid contact with skin, eyes and clothing. Avoid breathing of vapours, mist or gas. Use personal respiratory protection. Ensure adequate ventilation..
- 6.2 Environmental protection measurements: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.
- 6.3 Cleaning Methods: Absorb with appropriate absorbent material (e.g. sawdust, sand, diatomite, acid binders, universal binders, sodium bicarbonate, crushed limestone, etc) and place in closed adequate containers for proper disposal

## 7 Handling and storage

- 7.1. Handling: Avoid exposure. Prevent contact with skin, eyes and clothing. Avoid inhalation of vapour or mist.
- 7.2. Storage: Store in a cool place. Keep containers tightly closed and upright in a well-ventilated place.

## 8 Exposure controls/personal protection

This product is for research only and has not been intended/approved for any other commercial, drug, medicinal, household or other consumer purposes. Wear tightly fitting safety goggles, impervious clothing, and impervious gloves (e.g. neoprene rubber). Do not wear contact lenses. In case of insufficient ventilation wear suitable respiratory equipment. Contaminated work clothing should not be allowed to of the workplace. Handle in accordance with good industrial hygiene and safety practice.



Protective gloves



Tightly sealed goggles



Protective work clothing

### 8.1 Control Parameters

Ingredients with limit values that require monitoring at the workplace:

Acrylamide (CAS: 79-06-1):

PEL () 0,3 mg/m<sup>3</sup> Skin

REL () 0,03 mg/m<sup>3</sup> Skin

TLV () 0,03 mg/m<sup>3</sup> Skin

## 9 Physical and chemical properties

- 9.1. Physical State: Liquid
- 9.2. Appearance: Colourless
- 9.3. Odour: Odourless
- 9.4. pH (20°C): ~5.5
- 9.5. Flash Point: Undetermined
- 9.6. Melting point: Undetermined
- 9.7. Boiling point: Undetermined
- 9.8. Self-ignition: Product is not selfigniting
- 9.9. Danger of explosion: Does not present an explosion hazard
- 9.10 Solubility in water: Fully miscible

## 10 Stability and reactivity

10.1 Reactivity	No dangerous reactions known.
10.2 Chemical Stability	Stable
10.3 Conditions to avoid	No further relevant information available.
10.4 Materials to avoid	No further relevant information available.
10.5 Hazardous decomposition products	Carbon monoxide (CO)
10.6 Hazardous products of thermal decomposition:	Toxic vapors, Caustic vapors, carbon/sulfur/nitrogen oxides, Hydrogen cyanide

## 11 Toxicological information

11.1 Acute toxicity (acrylamide):	
Acute oral toxicity (LD50):	124mg/kg (Rat)
Acute dermal toxicity (LD50):	400mg/kg (Rat)

### 11.2 Potential Health effects:

Eyes:	Irritant effect.
Skin:	Irritant to skin and mucous membranes.
Sensitization:	Sensitization possible through skin contact
Target Organs:	Skin, Eye, Respiratory Tract.

### 11.3 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.

11.4 Carcinogenic effects:	according to IARC, acrylamide (CAS: 79-06-1) belongs to group 2A (probably carcinogenic to humans)
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## 12 Ecological Information

12.1 Toxicity	
Aquatic Toxicity	No data available.
12.2 Persistence and degradability:	No data available.
12.3 Behaviour in environmental systems:	
Bioaccumulative potential	No data available.
Mobility in Soil	No data available.
12.4 Additional ecological information:	
12.5 General notes:	Water hazard class 3 (Self-assessment). Self assessment): hazardous for water. Do not allow product to reach ground Water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground. Harmful to aquatic organisms.
12.6 Results of PBT and vPvB assessment	
PBT:	Not applicable
vPvB:	Not applicable
12.7 Other adverse effects:	No further relevant information available

### 13 Disposal Considerations

Dispose in accordance to all National and local environmental regulations. This product is sold in an amber plastic bottle. Dispose the empty bottle as unused product. May be incinerated in a hazardous waste incinerator. Product should be removed to a hazardous waste landfill only if no other disposal method is available.

- S29 Do not empty in drains
- S57 Use appropriate containment to avoid environmental contamination

### 14 Transport Information

#### Land transport ADR/RID (cross-border)

ADR/RID class: 6.1 Toxic substances  
Danger code (Kemler): 60  
UN-Number: 3426  
Packaging group: III  
UN proper shipping name: ACRYLAMIDE SOLUTION



#### Maritime transport IMDG

IMDG class: 6.1  
UN Number: 3426  
Label: 6.1  
Packaging group: III  
EMS Number: F-A, S-A  
Proper shipping name: ACRYLAMIDE SOLUTION



#### Air transport ICAO-TI and IATA-DGR

ICAO/IATA class: 6.1  
UN/ID number: 3426  
Label: 6.1  
Packaging group: III  
Proper shipping name: ACRYLAMIDE SOLUTION  
Special precautions for user: Warning: Toxic substances  
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable



### 15 Regulatory Information

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

15.2 Labelling according to EU guidelines.

The product has been classified and marked in accordance with EU Directives/Ordinance on Hazardous Materials.

15.3 Code letter and hazard designation of product



T Toxic

## 16 Other information

The information mentioned above is based on our present knowledge and is believed to be correct. However, it shall only be used as a guide and shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. GRISP, Lda. shall not be held liable for any damage resulting from the handling or from contact with the above product. This MSDS has been prepared in accordance with EU directives 67/548/EEC, 91/155/EEC and other EU legislation in force.