MSDS

Binding solution (Part Number 14401)
Version 1.0
Date of issue: 2017-11-29

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

1.1 Product identifier
Product Name Binding solution

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Binding solution

1.3 Details of the supplier of the safety data sheet
Company: TATAA Biocenter
Odinsgatan 28
411 03 Göteborg
Sweden
Phone: +46 31 761 5700
Fax: +46 31 15 28 90
Email: info@tataa.com

1.4 Emergency telephone number
Emergency number: 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Skin corrosion/irritation Category 2
Serious damage to eyes/eye irritation Category 2

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008 [CLP]

Pictogram:

Signal word: Warning

Hazard statement(s)
H315 Causes skin irritation
H319 Causes serious eye irritation

Precautionary statement(s)
P264 Wash hands thoroughly after handling.
SECTION 3: Composition/information on ingredients

3.2 Mixtures

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guanidinium chloride</td>
<td>1 - 20 wt%</td>
<td>Acute toxicity (category 4)</td>
</tr>
<tr>
<td>EC-No.: 200-002-3</td>
<td></td>
<td>H302 Harmful if swallowed</td>
</tr>
<tr>
<td>CAS-No.: 50-01-1</td>
<td></td>
<td>Skin corrosion/irritation (category 2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H315 Causes skin irritation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Serious damage to eyes/eye irritation (category 2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H319 Causes serious eye irritation</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 Description of first aid measures

If on skin: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2 and/or section 11).

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing media suitable for surrounding fire, for example extinguishing powder, carbon dioxide or foam.

5.2 Special hazards arising from the substance or mixture

No specific hazard.

5.3 Advice for firefighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA).
SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist before handling this product.

6.2 Environmental precautions
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

6.3 Methods and material for containment and cleaning up
Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with eyes.
Wear suitable protective clothing.
If you feel unwell, seek medical attention and show the label when possible.
Keep away from incompatibles such as oxidizing agents.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed. Keep container in a cool, well-ventilated area. Preferred storage temperature is 4°C. For long-term storage keep at -20°C.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Does not contain any substances with national limit values.

8.2 Exposure controls

Appropriate engineering controls:
Good general ventilation should be sufficient to control airborne levels.

Hygiene measures:
Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Respiratory protection:
Wear appropriate respirator when ventilation is inadequate.

Skin and body
Lab coat
Hands:
Gloves

Eye protection:
Splash goggles

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance:
Clear liquid

b) Odour:
Odorless.

c) Odour threshold:
Not applicable

d) pH:
Neutral

e) Melting point/freezing point:
-0.1°C

f) Initial boiling point and boiling range:
99.9°C

g) Flash point:
Not measured

h) Evaporation rate:
Not measured

i) Flammability (solid, gas):
Not measured

j) Upper/lower flammability or explosive limits:
Not measured

k) Vapour pressure:
2.3 kPa at 20°C

l) Vapour density:
0.62 (Air = 1.0)

m) Relative density:
1.0 (Water = 1.0)

n) Solubility(ies):
Miscible in water.
9.2 Other information
No other information is available.

SECTION 10: Stability and Reactivity

10.1 Reactivity
Not measured

10.2 Chemical stability
The product is stable at room temperature.

10.3 Possibility of hazardous reactions
No hazardous reactions are known.

10.4 Conditions to avoid
The product is unstable at a temperature above 37°C.

10.5 Incompatible materials
Reactive with oxidizing agents.

10.6 Hazardous decomposition products
No data available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

a) Acute toxicity

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS-no.</th>
<th>Test</th>
<th>Result</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guanidine Hydrochloride</td>
<td>50-01-1</td>
<td>LD50 Oral</td>
<td>475 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 Oral</td>
<td>571 mg/kg</td>
<td>Mouse</td>
</tr>
</tbody>
</table>
b) Skin corrosion/irritation
Hazardous in case of skin contact (irritant).

c) Serious eye damage/irritation
Hazardous in case of eye contact (irritant).

d) Respiratory or skin sensitisation
Non-sensitizer for skin.

e) Germ cell mutagenicity
No available data.

f) Carcinogenicity
Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

g) Reproductive toxicity
No known significant effects or critical hazards.

h) STOT-single exposure
No data available

i) STOT-repeated exposure
No data available

j) Aspiration hazard.
No data available.

SECTION 12: Ecological information

12.1 Toxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects
No data available

SECTION 13: Disposal considerations
13.1 Waste treatment methods
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: Transport Information

The product is not classified as dangerous goods according to UN model regulations (IMDG, ADR, RID and ADN)

14.1. UN number
Not applicable.

14.2. UN proper shipping name
Not applicable

14.3. Transport hazard class(es)
Not applicable.

14.4. Packing group
Not applicable.

14.5. Environmental hazards
The product is not classified as environmentally hazardous according to UN model regulations (IMDG, ADR, RID and ADN).

14.6. Special precautions for user
No data available.

14.7. Transport in bulk according to Annex II of Marpol112 and the IBC Code
Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No legislation specific for the mixture is known.

15.2 Chemical Safety Assessment
The supplier has not carried out a chemical safety assessment for the product.

SECTION 16: Other information
This information is based upon the present state of our knowledge.