SECTION 1: Identification

1.1 Product identifier

Name
100mg/mL Carbenicillin Solution

Product number
C2199, C2135, C2136, C2130, C8001, C2131

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses
General use

1.3 Details of the supplier of the safety data sheet

Teknova
2290 Bert Dr.
Hollister California 95023
United States

Telephone: 831-637-1100
Telefax: 831-637-2355
e-mail: info@teknova.com
Website: www.teknova.com

1.4 Emergency telephone number

CHEM TREC Emergency Phone Number
(800)-424-9300

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Section</th>
<th>Hazard class</th>
<th>Category</th>
<th>Hazard class and category</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.4R</td>
<td>respiratory sensitization</td>
<td>1</td>
<td>Resp. Sens. 1</td>
<td>H334</td>
</tr>
<tr>
<td>A.4S</td>
<td>skin sensitization</td>
<td>1</td>
<td>Skin Sens. 1</td>
<td>H317</td>
</tr>
</tbody>
</table>

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word
danger

- Pictograms
GHS08

- Hazard statements
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P285 In case of inadequate ventilation wear respiratory protection.
P302+P352 If on skin: Wash with plenty of water.
P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
P321 Specific treatment (see on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling

Carbenicillin Disodium Salt

2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Wt%</th>
<th>Classification acc. to GHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teknova WFI Water</td>
<td>7732-18-5</td>
<td>90</td>
<td>Resp. Sens. 1 / H334</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Sens. 1 / H317</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3 / H335</td>
</tr>
<tr>
<td>Carbenicillin Disodium Salt</td>
<td>4800-94-6</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

For full text of abbreviations: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.
Following ingestion
   Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed
   Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed
   none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media
   Suitable extinguishing media
      Water spray, BC-powder, Carbon dioxide (CO2)
   Unsuitable extinguishing media
      Water jet

5.2 Special hazards arising from the substance or mixture
   Hazardous combustion products
      Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters
   In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
   For non-emergency personnel
      Remove persons to safety.
   For emergency responders
      Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions
   Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up
   Advices on how to contain a spill
      Covering of drains
   Advices on how to clean up a spill
      Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder
   Appropriate containment techniques
      Use of adsorbent materials.
   Other information relating to spills and releases
      Place in appropriate containers for disposal. Ventilate affected area.
6.4 Reference to other sections


SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation
  
  Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

- Wash hands after use. Do not eat, drink and smoke in work areas.
- Remove contaminated clothing and protective equipment before entering eating areas.
- Never keep food or drink in the vicinity of chemicals.
- Never place chemicals in containers that are normally used for food or drink.
- Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

This information is not available.

8.2 Exposure controls

Appropriate engineering controls

- General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

- Wear eye/face protection.

Skin protection

- Hand protection
  
  Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Type of material
  
  Nitrile

- Other protection measures
  
  Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.
Environmental exposure controls
Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Physical state</td>
<td>liquid</td>
</tr>
<tr>
<td>Color</td>
<td>no data available</td>
</tr>
<tr>
<td>Odor</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>Other safety parameters</strong></td>
<td></td>
</tr>
<tr>
<td>pH (value)</td>
<td>not determined</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>not determined</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>738 °C</td>
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<tr>
<td>Flash point</td>
<td>not determined</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>not determined</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>not relevant, (fluid)</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>not determined</td>
</tr>
<tr>
<td>Density</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapor density</td>
<td>not determined</td>
</tr>
<tr>
<td>Relative density</td>
<td>information on this property is not available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>not determined</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td></td>
</tr>
<tr>
<td>- n-octanol/water (log KOW)</td>
<td>this information is not available</td>
</tr>
</tbody>
</table>
### SECTION 10: Stability and reactivity

**10.1 Reactivity**
Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

**10.2 Chemical stability**
See below "Conditions to avoid".

**10.3 Possibility of hazardous reactions**
No known hazardous reactions.

**10.4 Conditions to avoid**
There are no specific conditions known which have to be avoided.

**10.5 Incompatible materials**
Oxidizers

**10.6 Hazardous decomposition products**
Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

### SECTION 11: Toxicological information

**11.1 Information on toxicological effects**
Test data are not available for the complete mixture.

**Classification procedure**
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

**Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)**

- **Acute toxicity**
The classification criteria for these hazard classes are not met.

- **Skin corrosion/irritation**
The classification criteria for this hazard class are not met. Shall not be classified as corrosive/irritant to skin.

- **Serious eye damage/eye irritation**
The classification criteria for this hazard class are not met. Shall not be classified as seriously damaging to the eye or eye irritant.
Respiratory or skin sensitization
   May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity
   Shall not be classified as germ cell mutagenic.

Carcinogenicity
   The classification criteria for this hazard class are not met.

Specific target organ toxicity - single exposure
   The classification criteria for this hazard class are not met. Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure
   The classification criteria for this hazard class are not met.

Aspiration hazard
   The classification criteria for this hazard class are not met.

SECTION 12: Ecological information

12.1 Toxicity
   Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability
   Data are not available.

12.3 Bioaccumulative potential
   Data are not available.

12.4 Mobility in soil
   Data are not available.

12.5 Results of PBT and vPvB assessment
   Data are not available.

12.6 Other adverse effects
   Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
   Sewage disposal-relevant information
      Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.
   Waste treatment of containers/packages
      Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks
   Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.
### SECTION 14: Transport information

14.1 **UN number**
- not subject to transport regulations

14.2 **UN proper shipping name**
- not relevant

14.3 **Transport hazard class(es)**
- none

14.4 **Packing group**
- not relevant

14.5 **Environmental hazards**
- non-environmentally hazardous acc. to the dangerous goods regulations

14.6 **Special precautions for user**
- There is no additional information.

14.7 **Transport in bulk according to Annex II of MARPOL and the IBC Code**
- The cargo is not intended to be carried in bulk.

#### Information for each of the UN Model Regulations

**Transport of dangerous goods by road or rail (49 CFR US DOT)**
- Not subject to transport regulations.

**International Maritime Dangerous Goods Code (IMDG)**
- Not subject to IMDG.

**International Civil Aviation Organization (ICAO-IATA/DGR)**
- Not subject to ICAO-IATA.

### SECTION 15: Regulatory information

15.1 **Safety, health and environmental regulations specific for the product in question**

#### National regulations (United States)

**Superfund Amendment and Reauthorization Act (SARA TITLE III )**
- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)
  - none of the ingredients are listed
- Specific Toxic Chemical Listings (EPCRA Section 313)
  - none of the ingredients are listed

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**
- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)
  - none of the ingredients are listed

**Clean Air Act**
- none of the ingredients are listed

**New Jersey Worker and Community Right to Know Act**
- none of the ingredients are listed
California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987
none of the ingredients are listed

Industry or sector specific available guidance(s)

NPCA-HMIS® III

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic</td>
<td>*</td>
<td>chronic (long-term) health effects may result from repeated overexposure</td>
</tr>
<tr>
<td>Health</td>
<td>2</td>
<td>temporary or minor injury may occur</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
<td>material that will not burn under typical fire conditions</td>
</tr>
<tr>
<td>Physical hazard</td>
<td>0</td>
<td>material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive</td>
</tr>
<tr>
<td>Personal protection</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

NFPA® 704

<table>
<thead>
<tr>
<th>Category</th>
<th>Degree of hazard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>0</td>
<td>material that will not burn under typical fire conditions</td>
</tr>
<tr>
<td>Health</td>
<td>2</td>
<td>material that, under emergency conditions, can cause temporary incapacitation or residual injury</td>
</tr>
<tr>
<td>Instability</td>
<td>0</td>
<td>material that is normally stable, even under fire conditions</td>
</tr>
<tr>
<td>Special hazard</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

National inventories

<table>
<thead>
<tr>
<th>Country</th>
<th>Inventory</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>TSCA</td>
<td>not all ingredients are listed</td>
</tr>
</tbody>
</table>

Legend
TSCA  Toxic Substance Control Act

15.2 Chemical Safety Assessment
Chemical safety assessments for substances in this mixture were not carried out.
SECTION 16: Other information, including date of preparation or last revision

Key literature references and sources for data


Classification procedure
Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Disclaimer
The information contained herein is believed to be accurate but is not warranted to be so. Data and calculation are based on information furnished by the manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstance of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in section 1. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Teknova, inc. Shall not be held liable for any damage resulting from handling or from contact with the above product. Teknova, inc.