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

1.1 Product identifier
Trade name: Phenylguanidine carbonate
Registration number: 01-0000020279-67-0000
CAS-No.: 6291-89-0
EC-No.: 485-350-6

1.2 Relevant identified uses of the substance or mixture and uses advised against
Use of the Substance/Mixture: Raw material for industrial use

1.3 Details of the supplier of the safety data sheet
Company: AlzChem Trostberg GmbH
Dr.-Albert-Frank-Str. 32
83308 Trostberg, Germany
Telephone: +49 8621 86-3351
E-mail address of person responsible for the SDS: alz-pst@alzchem.com

1.4 Emergency telephone number
Emergency telephone number: +49 8621 86-2776
AlzChem Trostberg GmbH, Fire Brigade

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification (REGULATION (EC) No 1272/2008)
Skin sensitisation, Category 1: H317: May cause an allergic skin reaction.
Serious eye damage, Category 1: H318: Causes serious eye damage.
Long-term (chronic) aquatic hazard, Category 2: H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements
Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms: ![Signal word: Danger](image)
Phenylguanidine carbonate

Hazard statements:
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:
**Prevention:**
- P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P273 Avoid release to the environment.

**Response:**
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

**Disposal:**
- P501 Dispose of contents/container to an approved waste disposal plant.

2.3 Other hazards
A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out

SECTION 3: Composition/information on ingredients

3.1 Substances
**Substance name:** Phenylguanidincarbonate*H2O

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>guanidine, phenyl-, carbonate (1:2)</td>
<td>6291-89-0</td>
<td>485-350-6</td>
<td>&gt; 94</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 Description of first aid measures

**General advice:** Seek medical advice in case of symptoms caused by eye or skin contact, inhalation or swallowing.

**If inhaled:** See that there is fresh air.

**In case of skin contact:** Remove contaminated or saturated clothing. Wash off with plenty of water and soap immediately.

**In case of eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
Remove contact lenses if this can be easily done. Immediate further treatment in ophthalmic hospital/ophthalmologist.

If swallowed:
Rinse mouth.
Drink 1 or 2 glasses of water.
Do not induce vomiting without medical advice.

4.2 Most important symptoms and effects, both acute and delayed
None known.

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media: Water spray, foam, CO2, dry powder.
Unsuitable extinguishing media: High volume water jet

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products:
- Carbon oxides
- Nitrous gases
- Ammonia
- Hydrocyanic acid (HCN)

5.3 Advice for firefighters
Special protective equipment for firefighters:
In the case of fire, wear respiratory protective equipment independent of surrounding air and chemical protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Personal precautions:
Wear personal protective equipment; see section 8.
Ensure adequate ventilation.

6.2 Environmental precautions
Environmental precautions:
Product or extinguishing water with product must not be allowed to enter soil, sewers or natural bodies of water.

6.3 Methods and material for containment and cleaning up
Methods for cleaning up:
Use mechanical handling equipment.
Avoid dust formation.
Keep in suitable, closed containers for disposal.
SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: The substance must be handled under strictly controlled conditions in accordance with Article 17/18 of the REACH regulation. Provide sufficient ventilation and exhaust at the workplace. Avoid dust formation.

Advice on protection against fire and explosion: Avoid formation of air-dust mixtures and keep away from ignition sources (sparks, flames, open flame) to prevent dust explosions.

Hygiene measures: Do not breathe dust. Contact with skin, eyes and clothes must be strictly avoided. Take off contaminated clothing immediately. Do not eat, drink or smoke while working. Wash hands, and/or face before breaks and when workday is finished. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Keep containers tightly closed in a dry, cool and well-ventilated place.

Advice on common storage: Incompatible with oxidizing agents.

Storage class (TRGS 510): 13, Non Combustible Solids

Further information on storage stability: Stable at storage temperature < 40°C.

7.3 Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Personal protective equipment
Eye protection: Safety glasses

Hand protection
Material: Chloroprene, Recommendation: Camapren 722
Break through time: > 480 min
Glove thickness: 0.6 mm
Directive: DIN EN 374
Manufacturer: Kächele-Cama Latex GmbH (KCL), Germany

Material: Nitrile rubber, Recommendation: Camatril 730
Break through time: > 480 min
Phenylguanidine carbonate

Glove thickness: 0.4 mm
Directive: DIN EN 374
Manufacturer: Kächele-Cama Latex GmbH (KCL), Germany

Skin and body protection: Protective clothing
Respiratory protection: In case product dust is released:
Dust protection mask in accordance with EN 149 FFP2

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: powder
Colour: white to slight beige
Odour: odourless
Melting point/range: ca. 136 °C
Boiling point/boiling range: > 140 °C
Flash point: Not applicable
Vapour pressure: < 0.01 hPa (25 °C)
Density: 1.32 g/cm3 (22 °C)
Bulk density: 600 kg/m3 (20 °C)
Solubility(ies)
Water solubility: 7.5 g/l (25 °C)
Auto-ignition temperature:
> 600 °C for dust whirled up
> 360 °C
Method: VDI 2263
No burning at 360°C.

9.2 Other information

Impact sensitivity: not sensitive to impact
Molecular weight: 350.38 g/mol
SECTION 10: Stability and reactivity

10.1 Reactivity
See section 10.3

10.2 Chemical stability
No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions
Hazardous reactions: Dust may form explosive mixture in air.

10.4 Conditions to avoid
Conditions to avoid: Avoid dust formation. Keep away from heat and sources of ignition.

10.5 Incompatible materials
Materials to avoid: Acids, Bases, Oxidizing agents

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Components:
guanidine, phenyl-, carbonate (1:2):
Acute oral toxicity: LD50 (Rat): > 2000 mg/kg
Method: OECD Test Guideline 401
Remarks: Own study, IUCLID

Acute inhalation toxicity: Remarks: No data available

Acute dermal toxicity: LD50 (Rat): > 2000 mg/kg
Remarks: Own study, IUCLID

Skin corrosion/irritation
Components:
guanidine, phenyl-, carbonate (1:2):
Remarks: not irritating
Own study, IUCLID
Serious eye damage/eye irritation

**Product:**
Assessment : Causes serious eye damage.

**Components:**

*guanidine, phenyl-, carbonate (1:2):*

<table>
<thead>
<tr>
<th>Method</th>
<th>OECD Test Guideline 405</th>
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<tr>
<td>Result</td>
<td>Risk of serious damage to eyes.</td>
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<tr>
<td>Remarks</td>
<td>Own study, IUCLID</td>
</tr>
</tbody>
</table>

Respiratory or skin sensitisation

**Product:**
Assessment : May cause an allergic skin reaction.

**Components:**

*guanidine, phenyl-, carbonate (1:2):*

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Magnusson &amp; Kligman</th>
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<tbody>
<tr>
<td>Species</td>
<td>guinea pig</td>
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<tr>
<td>Assessment</td>
<td>May cause sensitisation by skin contact.</td>
</tr>
<tr>
<td>Method</td>
<td>OECD Test Guideline 406</td>
</tr>
<tr>
<td>Remarks</td>
<td>Own study, IUCLID</td>
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</tbody>
</table>

Germ cell mutagenicity

**Components:**

*guanidine, phenyl-, carbonate (1:2):*

Germ cell mutagenicity- Assessment : Did not show mutagenic effects in animal experiments., Own study, IUCLID

Carcinogenicity

**Components:**

*guanidine, phenyl-, carbonate (1:2):*

Carcinogenicity - Assessment : no data available

Reproductive toxicity

**Components:**

*guanidine, phenyl-, carbonate (1:2):*

Reproductive toxicity - Assessment : no data available
Phenylguanidine carbonate

STOT - single exposure

Components:

guanidine, phenyl-, carbonate (1:2):
Remarks : no data available

STOT - repeated exposure

Components:

guanidine, phenyl-, carbonate (1:2):
Remarks : no data available

Aspiration toxicity

Components:

guanidine, phenyl-, carbonate (1:2):
No data available

Further information

Product:
Remarks : No additional toxicological data are available.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Ecotoxicology Assessment
Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Components:

guanidine, phenyl-, carbonate (1:2):
Toxicity to fish : LC50 (Oncorhynchus mykiss): > 100 mg/l
Exposure time: 96 h
Method: OECD 203
Remarks: Own study, IUCLID

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): 15.7 mg/l
Exposure time: 48 h
Method: OECD 202
Remarks: Own study, IUCLID

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 3.8 mg/l
Exposure time: 72 h
Method: OECD 201
Remarks: Own study, IUCLID
12.2 Persistence and degradability

**Product:**
Biodegradability : Remarks: Not readily biodegradable.

**Components:**

guanidine, phenyl-, carbonate (1:2):
Biodegradability : Test Type: CO2 Evolution Test
Biodegradation: 7.5%
Exposure time: 28 d
Remarks: Not readily biodegradable.
Own study, IUCLID

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Results of PBT and vPvB assessment

**Product:**
Assessment : A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

12.6 Other adverse effects

**Product:**
Additional ecological information : No further ecotoxicological data are available.
Avoid release to the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

**Product**
Must be brought to an adequate waste treatment facility, in conformity with applicable waste disposal regulations.

**Contaminated packaging**
Packaging, that can not be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.
14.1 UN number

ADR : UN 3077  
RID : UN 3077  
IMDG : UN 3077  
IATA : UN 3077  
Not permitted for transport

14.2 UN proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (phenyl guanidine-carbonate)  
RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (phenyl guanidine-carbonate)  
IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (phenyl guanidine-carbonate)  
IATA : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
Not permitted for transport

14.3 Transport hazard class(es)

ADR : 9  
RID : 9  
IMDG : 9  
IATA (Cargo) : 9  
IATA_P (Passenger) : Not permitted for transport

14.4 Packing group

Remarks : Not dangerous goods in packaging up to 5 kg.

ADR
Packaging group : III  
Classification Code : M7  
Hazard Identification Number : 90  
Labels : 9  
Remarks : Not dangerous goods in packaging up to 5 kg.

RID
Packaging group : III  
Classification Code : M7  
Hazard Identification Number : 90  
Labels : 9  
Remarks : Not dangerous goods in packaging up to 5 kg.
**Phenylguanidine carbonate**

<table>
<thead>
<tr>
<th>IMDG</th>
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<th>IMDG</th>
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<tbody>
<tr>
<td>Packing group</td>
<td>III</td>
<td>Marine pollutant</td>
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<tr>
<td>Labels</td>
<td>9</td>
<td>Environmentally hazardous</td>
<td>yes</td>
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<tr>
<td>EmS Code</td>
<td>F-A, S-F</td>
<td>Environmentally hazardous</td>
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</tr>
<tr>
<td>Remarks</td>
<td>Not dangerous goods in packaging up to 5 kg.</td>
<td>Not dangerous goods in packaging up to 5 kg.</td>
<td></td>
</tr>
</tbody>
</table>

**IATA (Cargo)**
- Not permitted for transport
- ERG-Code 9L
  - Not dangerous goods in packaging up to 5 kg.

**IATA_P (Passenger)**
- Not permitted for transport
- ERG-Code 9L

### 14.5 Environmental hazards

- **ADR**
  - Environmentally hazardous: yes

- **RID**
  - Environmentally hazardous: yes

- **IMDG**
  - Marine pollutant: yes

- **IATA (Passenger)**
  - Environmentally hazardous: yes

- **IATA (Cargo)**
  - Environmentally hazardous: yes

### 14.6 Special precautions for user

- Remarks: Not dangerous goods in packaging up to 5 kg.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

**SECTION 15: Regulatory information**

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

### 15.2 Chemical safety assessment

No substance safety assessment is required for this product because it is an internal local intermediate product and/or a transported intermediate product.

**SECTION 16: Other information**

**Full text of other abbreviations**
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50% of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Cooperation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.