# Carbonic acid, 2,5-dioxo-1-pyrrolidinyl [2-(trimethylsilyl)ethyl] ester (cas 78269-85-9) MSDS

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifiers

<table>
<thead>
<tr>
<th>Product name</th>
<th>1-[2-(Trimethylsilyl)ethoxycarbonyl]pyrrolidin-2,5-dione</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Number</td>
<td>530816</td>
</tr>
<tr>
<td>Brand</td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>78269-85-9</td>
</tr>
</tbody>
</table>

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

Identified uses: Laboratory chemicals, Manufacture of substances

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**
- Skin irritation (Category 2)
- Eye irritation (Category 2)
- Specific target organ toxicity - single exposure (Category 3)

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**
Irritating to eyes, respiratory system and skin.

### 2.2 Label elements

**Labelling according Regulation (EC) No 1272/2008 [CLP]**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>Warning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal word</td>
<td>Hazard statement(s)</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>Precautionary statement(s)</td>
<td></td>
</tr>
<tr>
<td>P261</td>
<td>Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.</td>
</tr>
<tr>
<td>P305 + P351 + P338</td>
<td>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</td>
</tr>
<tr>
<td>Supplemental Hazard Statements</td>
<td>none</td>
</tr>
</tbody>
</table>

**According to European Directive 67/548/EEC as amended.**
- Hazard symbol(s) |

<table>
<thead>
<tr>
<th>R-phrase(s)</th>
<th>R36/37/38</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-phrase(s)</td>
<td>S26</td>
</tr>
<tr>
<td>S36</td>
<td>Wear suitable protective clothing.</td>
</tr>
</tbody>
</table>

### 2.3 Other hazards - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-[2-(Trimethylsilyl)ethoxycarbonyl]pyrrolidin-2,5-dione</td>
<td></td>
</tr>
</tbody>
</table>

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4. FIRST AID MEASURES
4.1 Description of first aid measures
   General advice
   Consult a physician. Show this safety data sheet to the doctor in attendance.
   If inhaled
   If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
   In case of skin contact
   Wash off with soap and plenty of water. Consult a physician.
   In case of eye contact
   Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
   If swallowed
   Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed
   To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
4.3 Indication of any immediate medical attention and special treatment needed
   No data available

5. FIREFIGHTING MEASURES
5.1 Extinguishing media
   Suitable extinguishing media
   Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2 Special hazards arising from the substance or mixture
   Carbon oxides, nitrogen oxides (NOx), silicon oxides
5.3 Advice for firefighters
   Wear self contained breathing apparatus for fire fighting if necessary.
5.4 Further information
   No data available

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6. ACCIDENTAL RELEASE MEASURES
6.1 Personal precautions, protective equipment and emergency procedures
   Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
6.2 Environmental precautions
   Do not let product enter drains.
6.3 Methods and materials for containment and cleaning up
   Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
6.4 Reference to other sections
   For disposal see section 13.

7. HANDLING AND STORAGE
7.1 Precautions for safe handling
   Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
   Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.
7.2 Conditions for safe storage, including any incompatibilities
   Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
   Recommended storage temperature: 2 - 8 °C
7.3 Specific end uses
   No data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1 Control parameters
   Components with workplace control parameters
8.2 Exposure controls
   Appropriate engineering controls
   Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
   Personal protective equipment
     Eye/face protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body Protection**
Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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9. **PHYSICAL AND CHEMICAL PROPERTIES**

9.1 Information on basic physical and chemical properties

a) Appearance
b) Odour
c) Odour Threshold
d) pH
e) Melting point/freezing point
f) Initial boiling point and boiling range
g) Flash point
h) Evaporation rate
i) Flammability (solid, gas)
j) Upper/lower flammability or explosive limits
k) Vapour pressure
l) Vapour density
m) Relative density
n) Water solubility
o) Partition coefficient: n-octanol/water
p) Autoignition temperature
q) Decomposition temperature
r) Viscosity
s) Explosive properties
t) Oxidizing properties

9.2 Other safety information

no data available

10. **STABILITY AND REACTIVITY**

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available
10.5 Incompatible materials
   Strong oxidizing agents

10.6 Hazardous decomposition products
   Other decomposition products - no data available

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11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
   Acute toxicity
   no data available
   Skin corrosion/irritation
   no data available
   Serious eye damage/eye irritation
   no data available
   Respiratory or skin sensitization
   no data available
   Germ cell mutagenicity
   no data available
   Carcinogenicity
   IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
   Reproductive toxicity
   no data available
   Specific target organ toxicity - single exposure
   Inhalation - May cause respiratory irritation.
   Specific target organ toxicity - repeated exposure
   no data available
   Aspiration hazard
   no data available
   Potential health effects
   Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
   Ingestion May be harmful if swallowed.
   Skin May be harmful if absorbed through skin. Causes skin irritation.
   Eyes Causes serious eye irritation.

   Signs and Symptoms of Exposure
   To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

   Additional Information
   RTECS: Not available

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
   no data available

12.6 Other adverse effects
   no data available

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13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
   Product
   Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number
ADR/RID: -
IMDG: -
IATA: -

14.2 UN proper shipping name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

14.3 Transport hazard class(es)
ADR/RID: -
IMDG: -
IATA: -

14.4 Packaging group
ADR/RID: -
IMDG: -
IATA: -

14.5 Environmental hazards
ADR/RID: no
IMDG Marine pollutant: no
IATA: no

14.6 Special precautions for user
no data available

15. REGULATORY INFORMATION
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

15.2 Chemical Safety Assessment
no data available

16. OTHER INFORMATION
Further information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information this document is based on the resent state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. guidechem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.