

**Material Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006

**BICYCLO[2.2.2]OCT-7-ENE-2,3,5,6-TETRACARBOXYLIC ACID**

Revision date 06.03.2025  
Version 1  
Replaces version from -

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**1. Identification of the substance/Mixture and of the company/undertaking**

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**1.1 Product identifier**

Product name Bicyclo[2.2.2]oct-7-ene-2,3,5,6-tetracarboxylic acid  
CAS-No. 16672-29-0

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

Identified uses Laboratory chemicals, manufacture of chemical compounds.

**1.3 Details of the supplier of the safety data sheet**

Name Valsynthese SA  
Factory address Valsynthese SA  
Fabrikstrasse 48  
PO Box 636  
3900 Brig / Switzerland  
Office address Valsynthese SA  
Societe Suisse des Explosifs Group  
PO Box 636  
3900 Brig / Switzerland

Information Departement This number is available only during office hours.  
Phone +41 27 922 71 11  
E-Mail (Responsible person):  
msds@sse-group.com

**1.4 Emergency Phone Number** +41 27 922 71 11 (only during office hours) or  
Toxicological Information Centre in Switzerland: Tel. 145  
or +41 (0) 44 251 51 51

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## 2. Hazards Identification

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### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity, oral,(Category 4), H302

Skin corrosion/irritation,(Category 2), H315

Serious eye damage/eye irritation,(Category 2A), H319

Specific target organ toxicity, single exposure; (Category 3), H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2 Label elements

#### Labelling according Regulation (EC) No 1272/2008

Hazard pictogram(s)



Signal word

Warning

Hazard statement(s)

H302

Harmful if swallowed.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

Precautionary statement(s)

P280

Wear protective gloves/protective clothing/eye protection/face protection

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements

none

### 2.3 Other hazards

No data available

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## 3. Composition / Information on ingredients

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### 3.1 Substance

Product name

Bicyclo[2.2.2]oct-7-ene-2,3,5,6-tetracarboxylic acid

Molecular formula

C<sub>12</sub>H<sub>12</sub>O<sub>8</sub>

Molecular weight

284.22 g/mol

CAS-No.

16672-29-0

### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
<b>Bicyclo[2.2.2]oct-7-ene-2,3,5,6-tetracarboxylic acid</b>		
CAS-No. 16672-29-0 EC-No. -	Acute Tox. 4; Skin Irr. 2; Eye Irr. 2; STOT SE 3; H302; H315; H319; H335	<=100%

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16.

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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. .Move out of dangerous area.
If swallowed	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
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.

### 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 or section 11).

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

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## 5. Fire fighting measures

### 5.1 Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides,  
Nitrogen oxides (NO<sub>x</sub>),  
Hydrogen bromide gas

### 5.3 Advice for fire fighters

Wear self contained breathing apparatus for fire fighting if necessary.



#### **5.4 Additional information**

Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## **6. Accidental release measures**

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### **6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, 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 material 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 further and detailed information see section 8 and 13.

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## **7. Handling and storage**

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### **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. For precautions see section 2.

### **7.2 Conditions for safe storage, including any incompatibilities**

#### **Storage conditions**

Tightly closed. Dry.

### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1, no other specific uses are stipulated.

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## **8. Exposure controls / Personal protection**

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### **8.1 Control parameters**

#### **Componentswith workplace control parameters**

Contains no substances with occupational exposure limit values.



## 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	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.
Skin protection	<p>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.</p> <p>The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.</p> <p>Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested: Dermatril® (KCL 740 / Size M)</p> <p>Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested: Dermatril® (KCL 740 / Size M)</p> <p>data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374</p> <p>If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.</p>
Body Protection	protective clothing.
Respiratory protection	<p>required when dusts are generated.</p> <p>Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.</p> <p>Recommended Filter type: Filter type P2.</p> <p>The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.</p>



Environmental exposure controls Do not let product enter drains.

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## 9. Physical and chemical properties

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### 9.1 Information on basic physical and chemical properties

Appearance	No data available
Odour	No data available
Odour threshold	No data available
pH value	No data available
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Relative density	No data available
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

### 9.2 Other information

No data available

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## 10. Stability and reactivity

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### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available



#### 10.4 Conditions to avoid

No data available

#### 10.5 Incompatible materials

No data available

#### 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## 11. Toxicological information

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### 11.1 Information on toxicological effects

Acute toxicity	Classified based on available data. For more details, see section 2
Skin corrosion/irritation	Classified based on available data. For more details, see section 2
Serious eye damage/eye irritation	Classified based on available data. For more details, see section 2
Respiratory or skin sensitisation	Classified based on available data. For more details, see section 2
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
STOT-single exposure	Classified based on available data. For more details, see section 2
STOT-repeated exposure	No data available
Aspiration hazard	No data available

### Additional information

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

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## 12. Ecological information

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### 12.1 Toxicity

No data available

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulation 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 Endocrine disrupting properties

No data available

#### 12.7 Other adverse effects

No data available

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### 13. Disposal considerations

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#### 13.1 Waste treatment methods

##### Product

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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### 14. Transport information

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#### 14.1 UN Number

ADR/RID: -    IMDG: -    IATA: -

#### 14.2 UN proper shipping name

ADR/RID: Not dangerous                  IMDG: Not dangerous goods                  IATA: Not dangerous goods  
goods

#### 14.3 Transport hazard class(es)

ADR/RID: -    IMDG: -    IATA: -

#### 14.4 Packing 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

#### Further information

Not classified as dangerous in the meaning of transport regulations.





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## 15. Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

#### Other regulations

Take note of Dir 94/33/EC on the protection of young people at work.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

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## 16. Other information

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### 16.1 Information regarding the revision of the safety data sheet

Data compared to the previous version altered.

### 16.2 Full text of H-Statements referred to under sections 2 and 3

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

### 16.3 Additional information

The information contained herein is in conformity with EU Directive EC 1907/2006 and EC 1272/2008, and is believed to be accurate and represents the best information currently available to us on the date of publication. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Valsynthese SA be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Valsynthese SA has been advised of the possibility of such damages.

