

## Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

### **N,N'-Bis(carboxymethyl)bicyclo[2.2.2]oct-7-ene-2,3,5,6-tetracarboxylic 2:3,5:6-diimide**

Revision date 10.06.2026  
Version 2  
Replaces version from 13.04.2026

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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 N,N'-Bis(carboxymethyl)bicyclo[2.2.2]oct-7-ene-2,3,5,6-tetracarboxylic 2:3,5:6-diimide  
CAS-No. 357387-67-8

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

Identified uses Laboratory chemicals, Manufacture of substances.

### 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]

Skin corrosion/irritation (Category 2), H315

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

Specific target organ toxicity, single exposure; Respiratory system (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)

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

Precautionary statement(s)

P261

Avoid breathing dust/fume/gas/mist/vapours/spray.

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

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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### 3. Composition / Information on ingredients

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#### 3.1 Substance

Product name	N,N'-Bis(carboxymethyl)bicyclo[2.2.2]oct-7-ene-2,3,5,6-tetracarboxylic 2:3,5:6-diimide
Molecular formula	C <sub>18</sub> H <sub>18</sub> N <sub>2</sub> O <sub>8</sub>
Molecular weight	390.34 g/mol
CAS-No.	357387-67-8

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

Component	Classification	Concentration
<b>N,N'-Bis(carboxymethyl)bicyclo[2.2.2]oct-7-ene-2,3,5,6-tetracarboxylic 2:3,5:6-diimide</b>		
CAS-No. 357387-67-8	Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; 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

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#### 4.1 Description of first aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
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 2.2) and/or in 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

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#### 5.1 Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
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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 dioxide  
Nitrogen oxides

## **5.3 Advice for fire fighters**

Wear self-contained breathing apparatus for firefighting if necessary.

## **5.4 Additional information**

No data available

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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 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 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**

### **Advice on safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

### **Advice on protection against fire and explosion**

Provide appropriate exhaust ventilation at places where dust is formed.

### **Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

For precautions see section 2.2.

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

### **Storage conditions**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

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

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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## 8. Exposure controls / Personal protection

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### 8.1 Control parameters

#### Ingredients with workplace control parameters

### 8.2 Exposure controls

#### 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 P2 (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).
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

Physical state	solid powder
Color	white
Odor	No data available
pH value	No data available
Melting point	260°C (by DSC)
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
Solubility	5,53 g/L in methanol 3,07 g/L in acetonitrile
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

Not data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Not data available

### 10.4 Conditions to avoid

Not data available

### 10.5 Incompatible materials

Not 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	Oral: No data available Inhalation: No data available Dermal: No data available
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Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Eye damage/irritation	No data available
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration hazard	No data available

### **11.2 Additional information**

#### **Endocrine disrupting properties**

##### **Product** (Assessment):

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### **12.6 Endocrine disrupting properties**

##### **Product** (Assessment):

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated



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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.

### 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

1.1	Product identifier
9.1	Information on basic physical and chemical properties
10.2	Chemical stability

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

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

### 16.3 Abbreviations and acronyms

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  
CAS Chemical Abstract Service  
CLP Classification, labelling and Packaging  
EC50 Effective Concentration 50%  
EN European norm  
IATA International Air Transport Association  
IMDG-Code International Maritime Dangerous Goods Code  
LC50 Lethal Concentration 50%  
LD50 Lethal Dose 50%  
OECD Organization for Economic Cooperation and Development  
PBT persistent, bioaccumulative, toxic  
PNEC Predicted No Effect Concentration  
REACH Registration, Evaluation and Authorization of Chemicals  
RID Regulations concerning the international carriage of dangerous goods by rail  
SVHC Substance of Very High Concern  
UN United Nations  
VOC Volatile organic compounds  
vPvB very persistent, very bioaccumulative

### 16.4 Training advice

Persons charged with the handling and cleaning of the product must be trained prior to start their work and in regular intervals. They must be informed about the risks using the product and the measures to take for efficient prevention. This concerns particularly

working security, first aid, health and environment protection.

### **16.5 Additional information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new madeup material.

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