

## Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

### 1,2,3,4,5,6-CYCLOHEXANEHEXACARBOXYLIC ACID TRIANHYDRIDE

Revision date 11.05.2022  
Version 2  
Replaces version from 04.05.2022

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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 1,2,3,4,5,6-Cyclohexanehexacarboxylic acid trianhydride  
CAS-No. 24109-35-1  
EC-No. n.a

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

Identified uses Intermediate for the chemical industry.

### 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 2), H319

STOT-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)

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.

P302+P352

IF ON SKIN: Wash with plenty of water/Seife.

P304+P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338

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

P332+P313

If skin irritation occurs: Get medical advice/attention.

P337+P313

If eye irritation persists: Get medical advice/attention.

### 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	1,2,3,4,5,6-Cyclohexanehexacarboxylic acid trianhydride
Molecular formula	C <sub>12</sub> H <sub>6</sub> O <sub>9</sub>
Molecular weight	294.17 g/mol
CAS-No.	24109-35-1
EC-No.	n.a

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

Component	Classification	Concentration
<b>1,2,3,4,5,6-Cyclohexanehexacarboxylic acid trianhydride</b>		
CAS-No. 24109-35-1 EC-No. n.a	Skin Irrit. 2; Skin 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	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended. Warning First aider: Pay attention to self-protection!
If swallowed	Rinse mouth. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps. Get immediate medical advice/attention.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention. Take off immediately all contaminated clothing.
In case of eye contact	In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

#### 4.2 Most important symptoms and effects, both acute and delayed

Skin corrosion/irritation Serious eye damage/eye irritation Irritation to respiratory tract.

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

Treat symptomatically.

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## 5. Fire fighting measures

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### 5.1 Extinguishing media

Suitable extinguishing media      Co-ordinate fire-fighting measures to the fire surroundings.  
Carbon dioxide (CO<sub>2</sub>), alcohol resistant foam, Dry extinguishing powder, Water spray jet.

Unsuitable extinguishing media      Strong water jet.

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

In case of fire: Gases/vapours, toxic, Carbon monoxide, Carbon dioxide (CO<sub>2</sub>).

### 5.3 Advice for fire fighters

Wear a self-contained breathing apparatus and chemical protective clothing.

### 5.4 Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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## 6. Accidental release measures

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

Remove persons to safety. Wear protective gloves/protective clothing/eye protection/face protection.

### 6.2 Environmental precautions

Do not allow to enter into surface water or drains.

### 6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal. Dispose of the residus of theproduct as hazardous waste.

### 6.4 Reference to other sections

For further and detailed information see section 8 and 13.

### 6.5 Additional Information

Losses during use of the product must be collected and disposed of in special containers as special waste.



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## 7. Handling and storage

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### 7.1 Precautions for safe handling

Wear personal protection equipment. Do not breathe dust.

Dust should be exhausted directly at the point of origin.

When using do not eat, drink or smoke. Avoid contact with eyes and skin.

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

Keep container tightly closed in a cool, well-ventilated place.

Do not store together with acide or basique substances. Keep away from oxidising agents.

Storage class: 11 – Combustible solids that cannot be assigned to any of the above storage classes.

### 7.3 Specific end use(s)

No data available

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## 8. Exposure controls / Personal protection

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### 8.1 Control parameters

No data available

### 8.2 Exposure controls

#### Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

#### 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	Use protective gloves in accordance to EN 374. The following material is suitable: NBR.
Body Protection	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).
Environmental exposure controls	Do not let product enter drains.

### 8.3 Additional information

No data available



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## 9. Physical and chemical properties

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### 9.1 Information on basic physical and chemical properties

Appearance	White to off-white powder
Odour	No data available
Odour threshold	No data available
pH value	No data available
Melting point	314-316 °C (decomposition)
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

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Acids, alkalines, Oxidizing agent.

### 10.6 Hazardous decomposition products

No data available

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## 11. Toxicological information

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### 11.1 Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

### Additional information

No data available

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## 12. Ecological information

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### 12.1 Toxicity

Based on available data, the classification criteria are not met.

### 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 assessmet**

The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

### **12.6 Other adverse effects**

No data available

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## **13. Disposal considerations**

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### **13.1 Waste treatment methods**

#### **Product**

The product may not be eliminated as municipal solid waste nor allowed to end up in the drainage system. These packs can be delivered packaging-specific to the existing collection points for hazardous waste.

#### **Contaminated packaging**

Completely emptied packages can be recycled.

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## **14. Transport information**

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### **14.1 UN Number**

No dangerous good in sense of these transport regulations.

### **14.2 UN proper shipping name**

No dangerous good in sense of these transport regulations.

### **14.3 Transport hazard class(es)**

not relevant

### **14.4 Packing group**

not relevant

### **14.5 Environmental hazards**

not relevant

### **14.6 Special precautions for user**

not relevant

### **14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not relevant





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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

#### EU legislation authorisations

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

COMMISSION REGULATION (EC) No 790/2009 of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.

DIRECTIVE 1999/45/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

### 15.2 Chemical safety assessment

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

### 15.3 Additional information

No data available

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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

Skin Irrit.	Skin corrosion/irritation
Eye Irrit.	Serious eye damage/eye irritation
STOT SE	STOT-single exposure
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.

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