VALSYNTHESE

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

PENTAERYTHRITOL TETRAACETATE

Revision date	30.09.2016
Version	5
Replaces version from	22.08.2013

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

1.1 Product identifier

Product name	Pentaerythritol tetraacetate
CAS-No.	597-71-7
EC-No.	209-907-8

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 Société Suisse des Explosifs Group PO Box 636 3900 Brig / Switzerland
Information Department	This number is available only during office hours. Phone +41 27 922 71 11 E-Mail (Responsible person): msds@explosif.ch
* **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

2. Hazards Identification

*** 2.1 Classification of the substance or mixture**

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

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

This substance is not classified as dangerous according to Directive 67/548/EEC.

*** 2.2 Label elements**

Labelling according Regulation (EC) No 1272/2008

Hazard pictogram(s) -

Signal word -

Hazard statement(s) -

Precautionary statement(s) -

2.3 Other hazards

None

3. Composition / Information on ingredients

*** 3.1 Substance**

Product name	Pentaerythritol tetraacetate
Molecular formula	$C_{13}H_{20}O_8$
Molecular weight	304,3 g/mol
Cas-No.	597-71-7
EC-No.	209-907-8

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

Component	Classification	Concentration
Pentaerythritol tetraacetate		
CAS-No. 597-71-7 EC-No. 209-907-8	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.	<=100%

Hazardous ingredients according to Directive 1999/45/EC

Component	Classification	Concentration
Pentaerythritol tetraacetate		
CAS-No. 597-71-7 EC-No. 209-907-8	This substance is not classified as dangerous according to Directive 67/548/EEC.	<=100%

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 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

No data available

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.
Unsuitable extinguishing media	Strong water jet.

5.2 Special hazards arising from the substance or mixture

During fire, irritating and highly toxic gases (CO, CO_2) may be generated by thermal decomposition or combustion.

5.3 Advice for fire fighters

Wear full protective clothing and self-contained breathing apparatus.

5.4 Additional information

No data available

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep unprotected people away, allow only well trained experts wearing suitable protective clothing to abide in the field of accident.
Use appropriate personal protective equipment.

6.2 Environmental precautions

Dispose of spillage and waste (product/packaging) in accordance with all applicable environmental laws. Do not allow to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.

6.3 Methods and material for containment and cleaning up

Sweep up the spilled and put in closed containers. Send containers to appropriate waste disposal or treatment plant.

6.4 Reference to other sections

For further and detailed information see section 8 and 13.

6.5 Additional Information

No data available

7. Handling and storage

7.1 Precautions for safe handling

Observe conventional hygiene precautions. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation.

Technical measures: ensure adequate ventilation. Avoid raising dust.

7.2 Conditions for safe storage, including any incompatibilities

Keep in original, closed and labelled container. The place of storage has to be properly ventilated and clean. Store in cool and dry place. Keep packaging closed when not in use. Follow all instructions on the label.

Incompatible materials: strong oxidizing agents.

7.3 Specific end use(s)

No data available

8. Exposure controls / Personal protection

8.1 Control parameters

No data available

8.2 Exposure controls

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

Appropriate engineering controls

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin.

*** 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	Full contact/ Splash contact Material: Nitrile-rubber Minimum layer thickness: 0,2 mm Break through time: 480 min Material tested: Dermatril P (KCL 743) data source: KCL GmbH, D-36124 Eichenzell, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374 contact the supplier of the CE 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.
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	Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. 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

The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions an expert's advice should be sought out before deciding upon further protective measures.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	White to off-white fine, crystalline powder
Odour	No specific odour
Odour threshold	No data available
pH value	No data available
Melting point/freezing point	80 – 84°C/-
Initial boiling point and boiling range	ca.225°C

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	Slightly soluble in water: 8220 mg/l at 25°C
Partition coefficient: n-octanol/water	Log $_{Pow}$: -1.231
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

10. Stability and reactivity

10.1 Reactivity

None known

10.2 Chemical stability

Stable under normal storage conditions, avoid humidity.
Easily hydrolysed by strong acid or strong alkali.

10.3 Possibility of hazardous reactions

Releasing of acetic acid in case of hydrolyse.

10.4 Conditions to avoid

Avoid dust formation and excess heat.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Irritating and toxic fumes and gases.

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
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

Additional information

No data available

12. Ecological information

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

No data available

12.6 Other adverse effects

No data available

13. Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. 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 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

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

No data available

15. Regulatory information

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

16. Other information

* 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

Not applicable

* 16.3 Full text of R-phrases referred to under sections 2 and 3

Not applicable

16.4 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.