VALSYNTHESE

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

AZELAIC ACID

Revision date	10.03.2025
Version	1
Replaces version from	-

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

1.1 Product identifier

Product name	Azelaic acid
CAS-No.	123-99-9
EC-No.	204-669-1

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

Identified uses	Chemical for synthesis.

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

2. Hazards Identification

2.1 Classification of the substance or mixture

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

Skin irritation (Category 2), H315
Eye irritation (Category 2), H319

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.
Precautionary statement(s)	
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/ eye protection/ face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
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.
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.

3. Composition / Information on ingredients

3.1 Substance

Product name	Azelaic acid
Molecular formula	$C_9H_{16}O_4$
Molecular weight	188,22 g/mol

CAS-No. 123-99-9

EC-No. 204-669-1

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

Component	Classification	Concentration
Azelaic acid		
CAS-No. 123-99-9 EC-No. 204-669-1		>=70 - < 90 %

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

4. First-aid measures

4.1 Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
If swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
If inhaled	After inhalation: fresh air.
In case of skin contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
In case of eye contact	After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

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

5. Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Water, Foam, Carbon dioxide (CO2), Dry powder.
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
Combustible.
Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.
Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for fire fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Additional information

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

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For further and detailed information see section 8 and 13.

7. Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions
Tightly closed. Dry.

Recommended storage temperature see product label.

Storage class
Storage class (TRGS 510): 11: Combustible Solids

7.3 Specific end use(s)

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

8. Exposure controls / Personal protection

8.1 Control parameters

Ingredients with workplace control parameters
Contains no substances with occupational exposure limit values.

8.2 Exposure controls

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	HThis recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: > 480 min Material tested:KCL 741 Dermatril® L This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: > 480 min Material tested:KCL 741 Dermatril® L
Body Protection	protective clothing.
Respiratory protection	required when dusts are generated. 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. Recommended Filter type: Filter type P2. The entrepeneur 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.
Environmental exposure controls	Do not let product enter drains.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	solid
Color	white
Odor	odorless
pH value	No data available
Melting point/freezing point	Melting point: ca.107 °C
Initial boiling point and boiling range	237 °C at 20 hPa
Flash point	215 °C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	< 1 hPa at 20 °C
Density	1.029 g/cm3 at 20 °C
Relative density	No data available
Water solubility	2.4 g/l at 20 °C
Partition coefficient: n-octanol/water	log Pow: 1.57 - Bioaccumulation is not expected., (Lit.)
Auto-ignition temperature	No data available
Decomposition temperature	> 360 °C
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Particle characteristics	No data available
Explosive properties	Not classified as explosive.
Oxidizing properties	none

9.2 Other information

No data available

10. Stability and reactivity

10.1 Reactivity

Forms explosive mixtures with air on intense heating.
A range from approx. 15 Kelvin below the flash point is to be rated as critical.
The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Violent reactions possible with:
Strong oxidizing agents
Bases
Reducing agents

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity	LD50 Oral - Rat - > 4,000 mg/kg LD50 Oral - Rat - male and female - > 2,000 mg/kg (Azelaic acid) (OECD Test Guideline 401) Remarks: (in analogy to similar compounds) LC50 Inhalation - Rat - male and female - 4 h - > 0.162 mg/l - vapor (Azelaic acid) Remarks: (in analogy to similar products) (ECHA) The value is given in analogy to the following substances: Octanoic acid LD50 Dermal - Rat - > 10 g/kg LD50 Dermal - Rabbit - male and female - > 2,000 mg/kg (Azelaic acid) (OECD Test Guideline 434) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: stearic acid

Skin corrosion/irritation	Skin - Rabbit (Azelaic acid) Result: Irritating to skin. - 4 h (OECD Test Guideline 404) Remarks: (in analogy to similar products)
Serious eye damage/eye irritation	Eyes - Rabbit (Azelaic acid) Result: Causes serious eye irritation. Remarks: (in analogy to similar products) (ECHA)
Respiratory or skin sensitisation	Maximization Test - Guinea pig (Azelaic acid) Result: negative (OECD Test Guideline 406)
Germ cell mutagenicity	Test Type: Ames test Result: negative Remarks: (Lit.) Test Type: Ames test (Azelaic acid) Test system: S. typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
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

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.

Repeated dose toxicity - Rat - male and female - Oral - NOAEL (No observed adverse effect level) - 1,000 mg/kg
Remarks: (in analogy to similar products)
The value is given in analogy to the following substances: Docosanoic acid
(Azelaic acid)

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

Systemic effects:
(Azelaic acid)
If swallowed
(Azelaic acid)
Apathy
(Azelaic acid)
Other dangerous properties can not be excluded.
(Azelaic acid)

Handle in accordance with good industrial hygiene and safety practice.
(Azelaic acid)

12. Ecological information

12.1 Toxicity

Toxicity to fish	semi-static test LC50 - Oryzias latipes - > 16 mg/l - 96 h (Azelaic acid) (OECD Test Guideline 203) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Decanoic acid
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) > 20 mg/l - 48 h (Azelaic acid) (OECD Test Guideline 202) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Decanoic acid
Toxicity to algae	static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 67 mg/l - 72 h (Azelaic acid) (OECD Test Guideline 201)
Toxicity to bacteria	static test EC10 - Pseudomonas putida - 912 mg/l - 18 h (Azelaic acid) (ISO 10712)

12.2 Persistence and degradability

Biodegradability	aerobic - Exposure time 19 d (Azelaic acid) Result: 79 - 89 % - Readily biodegradable. (OECD Test Guideline 301E)

12.3 Bioaccumulation potential

Bioaccumulation	Danio rerio (zebra fish) - 28 d at 21.5 °C - 2 mg/l(Azelaic acid) Bioconcentration factor (BCF): 234 - 249 (OECD Test Guideline 305)

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 regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

13. Disposal considerations

13.1 Waste treatment methods

Product

Notice Directive on waste 2008/98/EC. Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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

Further information
Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information

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.

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

H315	Causes skin irritation
H319	Causes serious eye 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.