

Trade name: Alumin acet-tart solutio

Substance number: 214501

Version: 4 / CH

Date revised: 31.01.2023

Replaces Version: 3 / CH

Print date: 31.01.23

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Alumin acet-tart solutio

Item No. 21450100

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

Use of the substance/preparation

Active pharmaceutical substance

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Hänseler AG

Industriestrasse 35

9100 Herisau

Telephone no. 0041 (0)71 353 58 58

E-mail address of sdb@haenseler.ch

person responsible

for this SDS

1.4. Emergency telephone number

Switzerland :145 / Abroad +41 (0)44 251 51 51

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Eye Dam. 1 H318

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms ***



Signal word ***

Danger

Hazard statements ***

H318 Causes serious eye damage.

Precautionary statements ***

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.
P310 Immediately call a POISON CENTER or doctor.

Trade name: Alumin acet-tart solutio

Substance number: 214501

Version: 4 / CH

Date revised: 31.01.2023

Replaces Version: 3 / CH

Print date: 31.01.23

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)contains *** acetic acid ... %; Aluminum sulfate (Al₂(SO₄)₃) hydrate (1:14)**2.3. Other hazards**

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients *****Hazardous ingredients *******Aluminum sulfate (Al₂(SO₄)₃) hydrate (1:14)**

CAS No.	16828-12-9		
EINECS no.	605-512-3		
Registration no.	01-2119531538-36-XXXX		
Concentration	>= 10	< 25	%
Classification (Regulation (EC) No. 1272/2008)	Eye Dam. 1 H318		

acetic acid ... %

CAS No.	64-19-7		
EINECS no.	200-580-7		
Registration no.	01-2119475328-30-XXXX		
Concentration	>= 5	< 10	%
Classification (Regulation (EC) No. 1272/2008)	Flam. Liq. 3 H226 Skin Corr. 1A H314		

Concentration limits (Regulation (EC) No. 1272/2008)

Eye Irrit. 2	H319	>= 10 < 25 %
Skin Corr. 1A	H314	>= 90 %
Skin Corr. 1B	H314	>= 25 < 90 %
Skin Irrit. 2	H315	>= 10 < 25 %

ATE dermal 1'112 mg/kg

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note B

Further ingredients *****water**

CAS No.	7732-18-5		
EINECS no.	231-791-2		
Concentration	>= 50	%	
Advice: [4]			

Calcium carbonate

CAS No.	471-34-1		
EINECS no.	207-439-9		
Registration no.	01-2119486795-18-XXXX		
Concentration	>= 1	< 10	%
Advice: [4]			

2,3-Dihydroxybutanedioic acid

CAS No.	87-69-4		
EINECS no.	201-766-0		

Trade name: Alumin acet-tart solutio

Substance number: 214501

Version: 4 / CH

Date revised: 31.01.2023

Replaces Version: 3 / CH

Print date: 31.01.23

Registration no. 01-2119537204-47-XXXX
Concentration < 1 %
Advice: [4]
Classification (Regulation (EC) No. 1272/2008)
Eye Dam. 1 H318

Note

[4] Voluntary information

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Remove contaminated, soaked clothing immediately and dispose of safely. If you feel unwell, seek medical advice (show the label where possible).

After inhalation

Ensure supply of fresh air. In the event of symptoms take medical treatment.

After skin contact

After contact with skin, wash immediately with plenty of water. Summon a doctor immediately.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Summon a doctor immediately.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.

5.2. Special hazards arising from the substance or mixture

Development of toxic gases

5.3. Advice for firefighters**Special protective equipment for fire-fighting**

Use self-contained breathing apparatus. Use personal protective clothing.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Remove persons to safety. Keep away sources of ignition.

6.2. Environmental precautions

Do not allow to enter drains or waterways. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up

Pick up with absorbent material. Send in suitable containers for recovery or disposal. Clean contaminated surfaces thoroughly with water.

SECTION 7: Handling and storage

Trade name: Alumin acet-tart solutio

Substance number: 214501

Version: 4 / CH

Date revised: 31.01.2023

Replaces Version: 3 / CH

Print date: 31.01.23

7.1. Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes and clothing.

7.2. Conditions for safe storage, including any incompatibilities

Storage classes

Storage class according to TRGS 510	12	Non-combustible liquids
Storage category (Switzerland)	8	Caustic and corrosive substances

Further information on storage conditions

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

SECTION 8: Exposure controls/personal protection ***

8.1. Control parameters

Exposure limit values ***

acetic acid ... %

List	SUVA			
Type	MAK			
Value	25	mg/m ³	10	ppm(V)
Short term exposure limit	50	mg/m ³	20	ppm(V)

Pregnancy group: S; Remarks: SSc; OAW Auge; NIOSH OSHA

Predicted No Effect Concentration (PNEC)

acetic acid ... %

Type	Soil		
Concentration	0.478		mg/kg
Type	Saltwater		
Concentration	0.3058		mg/l
Type	Freshwater		
Concentration	3.058		mg/l
Type	Marine sediment		
Concentration	1.136		mg/kg
Type	Sediment		
Concentration	11.36		mg/kg
Type	Sewage treatment plant (STP)		
Concentration	85		mg/l
Conditions	Intermittend		
Concentration	30.58		mg/l

8.2. Exposure controls

Respiratory protection

Provide good ventilation of working area (local exhaust ventilation if necessary).

Hand protection

necessary
Appropriate Material Gloves / resistant to chemicals

Eye protection

Trade name: Alumin acet-tart solutio

Substance number: 214501

Version: 4 / CH

Date revised: 31.01.2023

Replaces Version: 3 / CH

Print date: 31.01.23

Tightly fitting safety glasses

Body protection

Protective clothing

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state liquid, clear
Colour colourless to greenish yellow
Odour of acetic acid

Melting point

Remarks No data available

Boiling point or initial boiling point and boiling range

Value > 100 °C

Flash pointValue °C
Remarks Not applicable**pH value**

Remarks No data available

Vapour pressureValue appr. 23.0 hPa
Temperature 20 °C
Source Estimated value**Density and/or relative density**Value 1.050 to 1.062 g/ml
Remarks Relative Density according specification**9.2. Other information****Solubility in water**

Remarks miscible

SECTION 10: Stability and reactivity**10.1. Reactivity**

No decomposition if stored and applied as directed.

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

No decomposition if stored and applied as directed.

10.4. Conditions to avoid

No decomposition if stored and applied as directed.

10.5. Incompatible materials

No decomposition if stored and applied as directed.

10.6. Hazardous decomposition products

None under normal use.

SECTION 11: Toxicological information

Trade name: Alumin acet-tart solutio

Substance number: 214501

Version: 4 / CH

Date revised: 31.01.2023

Replaces Version: 3 / CH

Print date: 31.01.23

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**Acute oral toxicity (Components)****acetic acid ... %**

Species	rat		
LD50		3310	mg/kg

Calcium carbonate

Species	rat		
LD50		6450	mg/kg

2,3-Dihydroxybutanedioic acid

Species	rat		
LD50	>	2000	mg/kg
Method		OECD 423	

Aluminum sulfate (Al₂(SO₄)₃) hydrate (1:14)

Species	rat		
LD50		6207	mg/kg

Acute dermal toxicity

ATE	>	10'000	mg/kg
Method		calculated value (Regulation (EC) No. 1272/2008)	

Acute dermal toxicity (Components)**acetic acid ... %**

Species	rabbit		
LD50		1112	mg/kg
Source		Sigma/Aldrich	

2,3-Dihydroxybutanedioic acid

Species	rat		
LD50	>	2000	mg/kg
Method		OECD 402	

Acute inhalative toxicity (Components)**acetic acid ... %**

Species	rat		
LC50		11.4	mg/l
Duration of exposure		4	h

acetic acid ... %

Species	mouse		
LC50		5620	ppm(V)
Duration of exposure		1	h
Source		Sigma/Aldrich	

acetic acid ... %

LC50	>	40	mg/l
Duration of exposure		4	h

Skin corrosion/irritation (Components)**acetic acid ... %**

Species	rabbit		
evaluation		strongly corrosive	

2,3-Dihydroxybutanedioic acid

Species	rabbit		
evaluation		non-irritant	
Method		OECD 404	

Serious eye damage/irritation (Components)**acetic acid ... %**

Trade name: Alumin acet-tart solutio

Substance number: 214501

Version: 4 / CH

Date revised: 31.01.2023

Replaces Version: 3 / CH

Print date: 31.01.23

Species rabbit
 evaluation strongly corrosive

2,3-Dihydroxybutanedioic acid

evaluation irritant - risk of serious damage to eyes
 Method OECD 437

Aluminum sulfate (Al₂(SO₄)₃) hydrate (1:14)

evaluation irritant - risk of serious damage to eyes

Sensitization (Components)**acetic acid ... %**

Remarks No data available.

2,3-Dihydroxybutanedioic acid

evaluation non-sensitizing
 Method OECD 429

Subacute, subchronic, chronic toxicity (Components)**2,3-Dihydroxybutanedioic acid**

Chronic toxicity

Species rat
 NOAEL 2460 mg/kg

acetic acid ... %

Remarks No data available.

Mutagenicity (Components)**2,3-Dihydroxybutanedioic acid**

evaluation No experimental information on genotoxicity in vitro available.
 Method OECD 473

Aluminum sulfate (Al₂(SO₄)₃) hydrate (1:14)

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

acetic acid ... %

Remarks No data available.

Reproduction toxicity (Components)**2,3-Dihydroxybutanedioic acid**

evaluation No negative effects
 Method OECD 414

Aluminum sulfate (Al₂(SO₄)₃) hydrate (1:14)

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

Carcinogenicity (Components)**2,3-Dihydroxybutanedioic acid**

evaluation No negative effects
 Method OECD 453

Aluminum sulfate (Al₂(SO₄)₃) hydrate (1:14)

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

acetic acid ... %

Remarks No evidence available on carcinogenicity.

Specific Target Organ Toxicity (STOT) (Components)**acetic acid ... %**

Remarks No data available

11.2 Information on other hazards**Endocrine disrupting properties with respect to humans**

The product does not contain a substance that has endocrine disrupting properties with respect to

Trade name: Alumin acet-tart solutio

Substance number: 214501

Version: 4 / CH

Date revised: 31.01.2023

Replaces Version: 3 / CH

Print date: 31.01.23

humans.

Other information

By appropriate use of the product no health damage is known.

SECTION 12: Ecological information *****12.1. Toxicity****Fish toxicity (Components)****acetic acid ... %**

Species	rainbow trout (<i>Oncorhynchus mykiss</i>)	
LC50	> 300.8	mg/l
Duration of exposure	96	h
Method	OECD 203	

2,3-Dihydroxybutanedioic acid

Species	zebra fish (<i>Brachydanio rerio</i>)	
LC50	> 100	mg/l
Duration of exposure	96	h
Method	OECD 203	

Aluminum sulfate (Al₂(SO₄)₃) hydrate (1:14)

Species	<i>Gambusia affinis</i>	
LC50	37	mg/l

Daphnia toxicity (Components)**acetic acid ... %**

Species	<i>Daphnia magna</i>	
EC50	47	mg/l
Duration of exposure	24	h
Source	Merck KGaA Safety Data Sheet	

acetic acid ... %

Species	<i>Daphnia magna</i>	
EC50	> 300.82	mg/l
Duration of exposure	48	h
Method	OECD 202	
Source	Sigma/Aldrich	

2,3-Dihydroxybutanedioic acid

Species	<i>Daphnia magna</i>	
EC50	93.3	mg/l
Duration of exposure	48	h
Method	OECD 202	

Algae toxicity (Components)**acetic acid ... %**

Species	<i>Scenedesmus quadricauda</i>	
IC5	4000	mg/l
Duration of exposure	16	h

2,3-Dihydroxybutanedioic acid

Species	<i>Selenastrum capricornutum</i>	
EC50	51.4	mg/l
Duration of exposure	72	h
Method	OECD 201	

Bacteria toxicity (Components)**acetic acid ... %**

Species	<i>Pseudomonas putida</i>	
EC5	2850	mg/l

Trade name: Alumin acet-tart solutio

Substance number: 214501

Version: 4 / CH

Date revised: 31.01.2023

Replaces Version: 3 / CH

Print date: 31.01.23

Duration of exposure	16	h	
acetic acid ... %			
Species	Photobacterium phosphoreum		
EC50	11		mg/l
Duration of exposure	15	min	

12.2. Persistence and degradability

Biodegradability (Components)

acetic acid ... %			
Value	99		%
Duration of test evaluation	30	d	
	Readily biodegradable		

acetic acid ... %			
Value	95		%
Duration of test	5	d	
Method	OECD 302B/ISO 9888/EEC 88/302,C		

2,3-Dihydroxybutanedioic acid

Value	> 80		%
evaluation	Readily biodegradable		

Biochemical oxygen demand (BOD5) (Components)

acetic acid ... %			
Value	880		mg/g
Duration of test	5	d	
Source	Sigma/Aldrich		

12.3. Bioaccumulative potential

Octanol/water partition coefficient (log Pow) (Components)

acetic acid ... %			
log Pow	-0.17		
Temperature	25	°C	
Source	Sigma/Aldrich		

Aluminum sulfate (Al₂(SO₄)₃) hydrate (1:14)

pOW	-2		
-----	----	--	--

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment ***

The product contains no PBT substances
The product contains no vPvB substances.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the environment

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Disposal in compliance with local and national regulations.

Disposal recommendations for packaging

Dispose of as unused product.

Trade name: Alumin acet-tart solutio

Substance number: 214501

Version: 4 / CH

Date revised: 31.01.2023

Replaces Version: 3 / CH

Print date: 31.01.23

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number	The product does not constitute a hazardous substance in land transport.	The product does not constitute a hazardous substance in sea transport.	The product does not constitute a hazardous substance in air transport.

SECTION 15: Regulatory information *****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Water Hazard Class (Germany) *****

Water Hazard Class (Germany) WGK 3

Remarks Derivation of WGK according to Annex 1 No. 5.2 AwSV

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information**Hazard statements listed in Chapter 3**

H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

CLP categories listed in Chapter 3

Eye Dam. 1 Serious eye damage, Category 1
Flam. Liq. 3 Flammable liquid, Category 3
Skin Corr. 1A Skin corrosion, Category 1A

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.