

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 19.07.2018

Version 5.1

SECTION 1. Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Catalogue No. 101071

Product name Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

REACH Registration Number 01-2120763014-63-XXXX

CAS-No. 80164-67-6

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

Identified uses Pharmaceutical production

For additional information on uses please refer to the Merck Chemicals portal (www.merckgroup.com).

1.3 Details of the supplier of the safety data sheet

Company Merck KGaA * 64271 Darmstadt * Germany * Phone:+49 6151 72-0

Responsible Department LS-QHC * e-mail: prodsafe@merckgroup.com

1.4 Emergency telephone number Please contact the regional Merck representation in your country.

SECTION 2. Hazards identification**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Serious eye damage, Category 1, H318

Chronic aquatic toxicity, Category 2, H411

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.

101071

Product name

Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word

Danger

Hazard statements

H318 Causes serious eye damage.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P273 Avoid release to the environment.

P280 Wear eye protection.

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P313 Get medical advice/ attention.

Reduced labelling (≤125 ml)

Hazard pictograms



Signal word

Danger

Hazard statements

H318 Causes serious eye damage.

Precautionary statements

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101071
Product name Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

P280 Wear eye 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.

P313 Get medical advice/ attention.

CAS-No. 80164-67-6

2.3 Other hazards

None known.

SECTION 3. Composition/information on ingredients

3.1 Substance

Formula $C_4H_7AlO_5 \cdot H_2O$ $C_4H_7AlO_5 \cdot H_2O$ (Hill)
EC-No. 205-518-2
Molar mass 180,09 g/mol

Hazardous components (REGULATION (EC) No 1272/2008)

Chemical name (Concentration)

CAS-No.	Registration number	Classification
		aluminum hydroxide diacetate monohydrate (>= 80 % - <= 100 %)

80164-67-6	01-2120763014-63-XXXX	Serious eye damage, Category 1, H318 Chronic aquatic toxicity, Category 2, H411
------------	-----------------------	--

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

3.2 Mixture

Not applicable

SECTION 4. First aid measures

4.1 Description of first aid measures

After inhalation: fresh air.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101071

Product name Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Risk of serious damage to eyes.

The following applies to aluminium compounds in general: After swallowing: only slightly absorbable via the gastrointestinal tract. Serious disorders in man (from about 4000 mg aluminium up): phosphate metabolism, calcium metabolism.

Irritation and corrosion, Nausea, Vomiting

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Special protective equipment for firefighters

In the event of fire, wear self-contained breathing apparatus.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101071

Product name Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

Further information

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

Suppress (knock down) gases/vapours/mists with a water spray jet.

SECTION 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.

Advice for emergency responders:

Protective equipment see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials 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

Indications about waste treatment see section 13.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Observe label precautions.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101071

Product name Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

Recommended storage temperature see product label.

7.3 Specific end use(s)

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

SECTION 8. Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye/face protection

Tightly fitting safety goggles

Hand protection

full contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 480 min

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101071

Product name Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

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).

Other protective equipment

protective clothing

Respiratory protection

required when dusts are generated.

Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances

The entrepreneur 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.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	solid
Colour	white
Odour	weak
Odour Threshold	No information available.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101071
Product name Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

pH	No information available.
Melting point	> 280 °C Method: OECD Test Guideline 102 Decomposes before melting.
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	The product is not flammable. A.10. (Regulation (EC) No 440/2008, Annex A)
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	< 1 hPa at 20 °C Method: OECD Test Guideline 104
Relative vapour density	No information available.
Density	1,43 g/cm ³ at 20,0 °C Method: OECD Test Guideline 109
Relative density	No information available.
Water solubility	0,14 g/l at 20 °C Method: OECD Test Guideline 105

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	101071
Product name	Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

Partition coefficient: n-octanol/water	log Pow: -0,6 (30 °C) OECD Test Guideline 107 Bioaccumulation is not expected.
--	--

Auto-ignition temperature	384 °C Method: Relative self-ignition temperature for solids
---------------------------	---

Decomposition temperature	ca.130 °C
---------------------------	-----------

Viscosity, dynamic	No information available.
--------------------	---------------------------

Explosive properties	Not classified as explosive.
----------------------	------------------------------

Oxidizing properties	none
----------------------	------

9.2 Other data

Bulk density	ca.400 kg/m ³
--------------	--------------------------

Particle size	Mean particle size 3,4 µm Method: OECD Test Guideline 110
---------------	---

SECTION 10. Stability and reactivity

10.1 Reactivity

See section 10.3

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

10.4 Conditions to avoid

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101071

Product name Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

no information available

10.5 Incompatible materials

no information available

10.6 Hazardous decomposition products

no information available

SECTION 11. Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

LD50 Rat: > 2.000 mg/kg

OECD Test Guideline 423

Symptoms: Nausea, Vomiting

Acute inhalation toxicity

Symptoms: Possible damages:, mucosal irritations

Acute dermal toxicity

This information is not available.

Skin irritation

In vitro study

Result: negative

OECD Test Guideline 439

Eye irritation

In vitro study

Result: Causes serious eye damage.

OECD Test Guideline 437

Causes serious eye damage.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101071
Product name Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

Sensitisation

Maximisation Test Guinea pig
Result: negative
Method: OECD Test Guideline 406

Germ cell mutagenicity

Genotoxicity in vitro

Ames test
Escherichia coli/Salmonella typhimurium
Result: negative
Method: OECD Test Guideline 471

Carcinogenicity

This information is not available.

Reproductive toxicity

This information is not available.

Teratogenicity

This information is not available.

Specific target organ toxicity - single exposure

This information is not available.

Specific target organ toxicity - repeated exposure

This information is not available.

Aspiration hazard

This information is not available.

11.2 Further information

After uptake:

Possible damages:

adstringent

The following applies to aluminium compounds in general: After swallowing: only slightly absorbable via the gastrointestinal tract. Serious disorders in man (from about 4000 mg aluminium up): phosphate metabolism, calcium metabolism.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101071

Product name Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

SECTION 12. Ecological information

12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates

static test EC50 Daphnia magna (Water flea): > 0,96 mg/l; 48 h

Analytical monitoring: yes

OECD Test Guideline 202

Toxicity to algae

static test ErC50 Pseudokirchneriella subcapitata (green algae): 1,02 mg/l; 72 h

Analytical monitoring: yes

OECD Test Guideline 201

static test NOEC Pseudokirchneriella subcapitata (green algae): 0,76 mg/l; 72 h

Analytical monitoring: yes

OECD Test Guideline 201

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

log Pow: -0,6 (30 °C)

OECD Test Guideline 107

Bioaccumulation is not expected.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects

Discharge into the environment must be avoided.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101071
Product name Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

SECTION 13. Disposal considerations

Waste treatment methods

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.

SECTION 14. Transport information

Land transport (ADR/RID)

14.1 UN number UN 3077
14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S. (ALUMINIUM HYDROXIDE ACETATE HYDRATE)
14.3 Class 9
14.4 Packing group III
14.5 Environmentally hazardous yes
14.6 Special precautions for user yes
Tunnel restriction code -
Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9

Inland waterway transport (ADN)

Not relevant

Air transport (IATA)

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101071
Product name Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

14.1 UN number UN 3077
14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S. (ALUMINIUM HYDROXIDE ACETATE HYDRATE)
14.3 Class 9
14.4 Packing group III
14.5 Environmentally hazardous yes
14.6 Special precautions for user no

Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9

Sea transport (IMDG)

14.1 UN number UN 3077
14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S. (ALUMINIUM HYDROXIDE ACETATE HYDRATE)
14.3 Class 9
14.4 Packing group III
14.5 Environmentally hazardous yes
14.6 Special precautions for user yes

EmS F-A S-F

Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9

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

Not relevant

SECTION 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Major Accident Hazard SEVESO III
Legislation ENVIRONMENTAL HAZARDS
E2
Quantity 1: 200 t
Quantity 2: 500 t

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101071
Product name Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Substances of very high concern (SVHC) This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of ≥ 0.1 % (w/w).

National legislation

Storage class 10 - 13

15.2 Chemical safety assessment

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

SECTION 16. Other information

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

H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.

Training advice

Provide adequate information, instruction and training for operators.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.

101071

Product name

Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

Labelling

Hazard pictograms



Signal word

Danger

Hazard statements

H318 Causes serious eye damage.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P273 Avoid release to the environment.

P280 Wear eye protection.

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P313 Get medical advice/ attention.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Regional representation

A.J.VOUROS LTD. * 14, Proponditos Street * Strovolos Industrial Area * 2033 NICOSIA *
Cyprus * Tel: +357 22 442 822

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101071

Product name Aluminium hydroxide acetate hydrate (basic aluminium acetate) pure

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.