

Printing date 10/09/2018

Reviewed on 10/09/2018

1 Identification

- · Product identifier
- Trade name: <u>Aluminum Sulfate Hydrate, ACS</u>
- · Article number: 191403
- CAS Number:
- 17927-65-0
- EC number:
- 605-852-2
- · Molecular Formula Al2(SO4)3 · (14-18)H2O
- Molecular Weight 342.1
- Application of the substance / the mixture For Research Use Only

• Details of the supplier of the safety data sheet • Manufacturer/Supplier: MP Biomedicals, LLC 29525 Fountain Parkway Solon, OH 44139 United States www.mpbio.com

• *Information department: Quality Control Department* • *Emergency telephone number:* CHEMTREC: 1-800-424-9300 (1-703-527-3887)

2 Hazard(s) identification

· Classification of the substance or mixture



Eye Dam. 1 H318 Causes serious eye damage.

- · Label elements
- *GHS label elements* The substance is classified and labeled according to the Globally Harmonized System (GHS). *Hazard pictograms*



- · Signal word Danger
- · Hazard-determining components of labeling:
- Aluminum Sulfate Hydrate, ACS
- Hazard statements
- Causes serious eye damage.
- · Precautionary statements
- Wear eye protection / face protection.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

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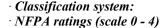
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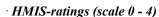
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HEALTH2Health = 2FIRE0Fire = 0REACTIVITY0Reactivity = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.

• **vPvB:** Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description
- 17927-65-0 Aluminum Sulfate Hydrate, ACS
- · Identification number(s)
- EC number: 605-852-2

4 First-aid measures

- · Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures
- Wear protective equipment. Keep unprotected persons away.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.

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• Methods and material for containment and cleaning up: Use neutralizing agent. Pick up mechanically, dispose contaminated material as w

Pick up mechanically, dispose contaminated material as waste according to Section 13.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

• Protective Action Criteria for Chemicals

• PAC-1:

Substance is not listed.

· PAC-2:

Substance is not listed.

· PAC-3:

Substance is not listed.

7 Handling and storage

- · Handling:
- · Precautions for safe handling Thorough dedusting.
- Information about protection against explosions and fires: No special requirements.
- · Conditions for safe storage, including any incompatibilities
- Storage: 15-30°C
- Requirements to be met by storerooms and receptacles: No special requirements.
- Further information about storage conditions:
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see Section 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes. Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation *Material of gloves*
- The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

• **Penetration time of glove material** The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

General Information		
Appearance:		
Form:	Crystalline powder	
Color:	White	
Odor:	Indeterminate	
Odor threshold:	Not determined.	
pH-value:	Not applicable.	
Change in condition		
Boiling point/Boiling range:	Undetermined.	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Product is not flammable.	
Decomposition temperature:	Not determined.	
Auto igniting:	Not determined.	
Danger of explosion:	See section 10	
Explosion limits:		
Lower:	Not Applicable	
Upper:	Not Applicable	
Vapor pressure:	Not applicable.	
Density:	Not Applicable	
Relative density	Not determined.	
Vapor density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with	Not Determined	
Water:	Not determined.	
Partition coefficient (n-octanol/wa	ter): Not determined.	
Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	

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VOC content:	0.00 %	
	0.0 g/l / 0.00 lb/gl	
Solids content:	100.0 %	
• Other information	No further relevant information available.	

10 Stability and reactivity

· Reactivity No further relevant information available.

- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects

- · Acute toxicity:
- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: Strong irritant with the danger of severe eye injury.
- · Sensitization: No sensitizing effects known.
- Additional toxicological information:

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- *Mobility in soil* No further relevant information available.
- Additional ecological information:

· General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or unneutralized.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- **vPvB:** Not applicable.

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• Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods · Recommendation:

Can not be disposed together with household garbage. Do not allow product to reach sewage system.

· Uncleaned packagings:

• *Recommendation:* Discard must be made according to official regulations.

UN-Number DOT, ADR, IMDG, IATA	UN3077	
UN proper shipping name		
DOT	Environmentally hazardous substances, solid, n.o.s. (Aluminu. Sulfate Hydrate, ACS)	
ADR	3077 Environmentally hazardous substances, solid, n.o.,	
IMDG, IATA	(Aluminum Sulfate Hydrate, ACS) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O (Aluminum Sulfate Hydrate, ACS)	
Transport hazard class(es)		
DOT, ADR, IMDG		
Class	9 Miscellaneous dangerous substances and articles	
Label	9	
Class Label	9 Miscellaneous dangerous substances and articles 9	
Packing group DOT, ADR, IMDG, IATA	III	
Environmental hazards: Special marking (IATA):	Symbol (fish and tree)	
Special precautions for user EMS Number:	<i>Warning: Miscellaneous dangerous substances and articles</i> <i>F-A,S-F</i>	
Stowage Category	A SW23 When transported in BK3 bulk container, see 7.6.2.12 an	

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Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.	
Transport/Additional information:		
DOT Quantity limitations	On passenger aircraft/rail: No limit	
	On cargo aircraft only: No limit	
ADR Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g	
IMDG Limited quantities (LQ) Excepted quantities (EQ)	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g	
UN "Model Regulation":	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCES SOLID, N.O.S. (ALUMINUM SULFATE HYDRATE, ACS), 9, III	

15 Regulatory information

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

• Section 355 (extremely hazardous substances):

Substance is not listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

• TSCA (Toxic Substances Control Act):

Substance is not listed.

· TSCA new (21st Century Act) (Substances not listed)

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· Proposition 65

· Chemicals known to cause cancer:

Substance is not listed.

• Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

Chemicals known to cause developmental toxicity:

Substance is not listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

Substance is not listed.

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• TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

·NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

• *GHS label elements* The substance is classified and labeled according to the Globally Harmonized System (GHS). • *Hazard pictograms*



· Signal word Danger

- *Hazard-determining components of labeling: Aluminum Sulfate Hydrate, ACS*
- · Hazard statements
- Causes serious eye damage.
- · Precautionary statements
- Wear eye protection / face protection.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Quality Control Dept.
- · Date of preparation / last revision 10/09/2018 / -

• Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit **REL:** Recommended Exposure Limit Eye Dam. 1: Serious eye damage/eye irritation - Category 1