



Material Safety Data Sheet
In accordance with Regulation (EU) No. 878/2020
ALUMINIUM SULPHATE SOLID, CRYSTALOHIDATE

MSDS № 3,3 / august 2015

Version: 7 /

Revision date: 15.07.2022

Page 1 of 9

PART 1: Identification of the substance /mixture and of the company / enterprise	
<p>1.1. Identifications of the product</p> <p>Registration № 01-2119531538-36-0035 CAS number: CAS number: 17927-65-0 ~ Al₂(SO₄)₃.xH₂O / for crystalline hydrate; 7784-31-8 ~ Al₂(SO₄)₃.18H₂O / for octadecahydrate EC number: 233-135-0 Annex I index number: ----- IUPAC name: Aluminum salt of sulfuric acid oktadeka hydrate Trade name: Aluminium sulphate solid -Type product: Mono-constituent substance - Synonyms: Aluminum salt of sulfuric acid crystal hydrate Hydrated aluminum sulfate, aluminum sulfate Solid Molecular formula: Al₂(SO₄)₃.xH₂O Molecular weight range: 666.42 for octadecahydrate UFI code: ----- Not applicable</p> <p align="right">-nanoforms</p>	
<p>1.2. Identification uses of the substance, which are importance, and uses, which are not recommended</p>	<p>Raw material for purification of drinking water, industrial water in energy in facilities for chemical water purification With applications in leather industry and other.</p>
<p>1.2.1 Industrial Use</p>	<ul style="list-style-type: none"> ➤ Production of aluminum sulphate. Total formation, including pelletisation. ➤ Production of fine chemicals ➤ Formulation (mixing) of preparations and / or repacking ➤ Manufacture of pulp, paper and paper products ➤ Production of base metals, including alloys ➤ Water treatment: treatment of natural and drinking water. ➤ Water purification, wastewater treatment in WWTP sludge ➤ Use as reactive product / raw material.
<p>1.2.2 Professional Use</p>	<ul style="list-style-type: none"> ➤ Products such as: pH - regulators, flocculants, precipitants, neutralizing agents ➤ Chemicals for the treatment / disinfection of drinking water and swimming pools ➤ Manufacture of pulp, paper and paper products ➤ Production of base metals, including alloys ➤ Production of non-metallic mineral products, eg. plasters, cements ➤ Construction and building activities ➤ Production of textile, leather, fur ➤ Agriculture, forestry and fishing ➤ printing and reproduction of recorded media ➤ Use in laboratories (vocational);
<p>1.2.3 Consumer Use</p>	<ul style="list-style-type: none"> ➤ Consumer use of plaster, cement. ➤ Use of agrochemicals ➤ Domestic use
<p>1.3. Details for Producer of MSDS</p> <p align="right">-Address</p>	<p>„ContinVeSt” Ltd, Sofia 1111 Sofia, Bulgaria; 6, blvd. Shipchenski Prohod 18, Galaxy Trade Center, block D, fl. 5, office 505</p>



Material Safety Data Sheet
In accordance with Regulation (EU) No. 878/2020
ALUMINIUM SULPHATE SOLID, CRYSTALOHIDATE

MSDS № 3,3 / august 2015

Version: 7 /

Revision date: 15.07.2022

Page 3 of 9

PART 3: Composition/information about components

- See Part 16. Of MSDS

Specific limit concentration, M-factor and assessment of acute toxicity - no information
Characteristics of the particles /if the substance contains nanoforms/ - not applicable

3.1. Substances-In accordance to Regulation 1907/2006 the substance is one-component mixture

Dangerous components	Chem. form. concentr.,%	CAS №	EC №	Annex-Index№	Warnings of danger - CLP	Recommendations for safety -CLP	Registration № - REACH
Aluminium sulphate	$Al_2(SO_4)_3$	10043-01-3	233-135-0	-----	H 318 Eye irrit. 1 H 290	P261; P264; P280; P310 P305+P351+P338 P406	01-2119531538-36-0035
	$Al_2(SO_4)_3 \cdot x H_2O$	17927-65-0					
	$Al_2(SO_4)_3 \cdot 16 H_2O$	16828-11-8					
	$Al_2(SO_4)_3 \cdot 18 H_2O$	7784-31-8					

Molecular mass
342,14 g/mol - $Al_2(SO_4)_3$.
666.42g/mol - $Al_2(SO_4)_3 \cdot 18H_2O$

3.2. Mixtures - not applicable

New moments regarding the mixtures:

3.2.1- a) Specific limit concentration for substances classified as skin or respiratory sensitizers

3.2.1-b) Concentration of substances / over 0.1% / disrupting the functions of the endocrine system

3.2.2- Substances above certain limits:

(c) skin sensitizer; d) skin sensitizer; e) carcinogenic; f) toxic for reproduction

3.2.3- For the substances in the mixture, indicate /if available/: * Specific limit concentration, M-coefficient and assessment of acute toxicity;

* Characteristic of the particles /if the substance contains nanoforms/

PART 4: First aid measures

4.1. Description of first aid measures

Inhalation-Move victim to fresh air. Apply artificial respiration if the person has stopped breathing.

Seek medical attention immediately

Contact with skin - Wash immediately with plenty of water for at least 15 minutes. Seek medical attention if irritation persists. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before reuse.

Eye contact - Immediately flush eyes with plenty of water, for at least 15 minutes, while moving eye pupils in all directions, to eliminate product remains, holding eyelids wide opened. It is mandatory to seek medical assistance (ophthalmologist).

If swallowed- Do not induce vomiting. If victim is conscious and has no breathing problems, may give him a little (not more than one glass) of water. Do not be left unattended. Never give anything by mouth to an unconscious person.

IMMEDIATELY - medical care!

4.2. The most significant acute and occur symptoms and effects after a certain period of time

Inhalation - Causes irritation of the respiratory system. Symptoms may include coughing, shortage of air.

Skin contact - causes irritation, with symptoms of redness, itching and pain after more prolonged exposure.

Eye contact-causes irritation, redness, and pain. Can lead to damage to the eyes, which may persist for several days, as well as burns, in prolonged contact.

If swallowed - symptoms include nausea, vomiting and diarrhea. May cause irritation, burns of the mouth and esophagus, abdominal pain, nausea, vomiting.

4.3 Indication of necessity for immediate medical attention and special treatment

It can lead to eye damage that can persist for several days, as well as burns, if prolonged contact. Inhalation of the product can aggravate existing chronic respiratory problems in some people, such as asthma, emphysema, or bronchitis. Skin contact can aggravate existing skin conditions

PART 5: Measures for fire protection



Material Safety Data Sheet
In accordance with Regulation (EU) No. 878/2020
ALUMINIUM SULPHATE SOLID, CRYSTALOHIDATE

MSDS № 3,3 / august 2015

Version: 7 /

Revision date: 15.07.2022

Page 5 of 9

PART 8: Exposure control / personal protection	
8.1. Control parameters Limit values for chemical agents in the air of working space:	* under Regulation 13 For the protection of workers from risks, Permissible dust concentration of aluminum sulfate in the air, adjusted as aluminum - 2 mg/m³
8.2. Exposure Control	
8.2.1. <u>Appropriate engineering controls</u>	System for local or general exhaust ventilation to maintain exposure f limits of the product below impact of levels carried by the air impact is recommended. It is generally preferred local exhaust ventilation, because it can control the emissions of the contaminant at its source, preventing dispersion throughout the area of operation. Provide showers with water at work.
8.2.2. <u>Individual protection measures, such as personal protective equipments</u>	According Art.4 of Dir.98/24/EO-see Section 7.1.
a) respiratory protection	If the exposure exceeds the permissible limits (50 ppm), it is recommended a full face protection with chemical respirator - cartridge with acid. A gas mask is recommended above this limit..
b) hand protection	Wash hands with soap and water before and after work. Use protective gloves.
c) protect the eyes	If risk of splashing to use safety glasses or full face safety masks.
d) protect the skin	Protective clothing: clothing with long sleeves, apron, rubber gloves and boots.
8.2.3. <u>Control of exposure to environmental</u>	Prevent spills into sewer systems, water sources and soils.
PART 9: Physical and chemical properties	
9.1. Information on basic physical and chemical properties	Emission limits in the air for MAC in work space = 2 mg/m³
*Appearance	Colourless to white powder
* Odor	Odorless
*Concentration and *pH	*pH: 3,5 (1% solution)
* Boiling point	No find information
* Flashpoint	No
* Flammability (solid, gas)	Not applicable
* Explosive properties	No
* Oxidizing properties	Corrosion on non-ferrous metals
* Vapor pressure	No find information
* Characteristic of the particles /applies to nanoforms/	Not applicable
* Solubility	Insoluble in alcohol
* Solubility in water	Easily soluble in hot water -1104 g./100 ml @ 100°C
* Solubility in other biological or environmental media /applies to nanoforms/	Not applicable
* coefficient (n-octanol/water)	No information
*stability of the dispersed system in different media /applies to nanoforms/	Not applicable
* Viscosity	Not applicable
* Vapor density	Not applicable
* Evaporation rate	No information
9.2. Other information	



Material Safety Data Sheet
In accordance with Regulation (EU) No. 878/2020
ALUMINIUM SULPHATE SOLID, CRYSTALOHIDATE

MSDS № 3,3 / august 2015

Version: 7 /

Revision date: 15.07.2022

Page 7 of 9

11.2. information on adverse health effects caused by endocrine disrupting properties	No side effects on the endocrine system.
PART 12: Ecological information	
12.1. Toxicity	240 ppm/48 h / mosquito fish. Possibly short term hazardous degradation products may not occur, but for long term there is no guarantees.
12.2. Persistence and degradability	Methods for determining of biological separable are not applicable to inorganic products.
12.3. Bioaccumulative potential	No information
12.4. Mobility in soil	No information
12.5. Results rate of PBT and vPvB	No information
12.6. Endocrine disrupting properties	No side effects on the endocrine system
12.7. Other adverse effects	No information
PART 13: Disposal of wastes	
13.1. Suppression of product	This product is neutralized in treatment plants. Where this is not possible, the impurities eliminate by dissolving in large amount of water. Contaminated water is treated most often with solutions of sodium hydroxide. Code of waste- 06.03.14- solid salts
13.2. Disposal of packaging	Packages shall not be destroyed. After washing and drying, they are recycled. Dry by purging with dry air. Packages which can no longer be used are destroyed by special methods according to local regulations. Code of waste - 15.01.02- plastic packaging or 15.01.05 - composites / multilayer packaging
PART 14: Information about transportation	
The finished product is not considered hazardous under the Transport Regulations It is no dangerous charge for air, sea and road transportation.	
14.1. UN number	Aluminum sulphate, crystalline hydrate is not subject to the ADR / RID / IMDG / ICAO / IATA regulations.
14.2. UN proper shipping name	Aluminum sulphate, crystalline hydrate is not subject to the ADR / RID / IMDG / ICAO / IATA regulations.
14.3. Transport hazard class(es)	Aluminum sulphate, crystalline hydrate is not subject to the ADR / RID / IMDG / ICAO / IATA regulations.
14.4. Packing group	Aluminum sulphate, crystalline hydrate is not subject to the ADR / RID / IMDG / ICAO / IATA regulations.
14.5. Environmental hazards	The product is not environmentally hazardous.
14.6. Special precautions for user	Users (customers, carriers) who will move around the product area will comply with all security measures available in an area with dangerous chemicals.
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable
PART 15: Regulatory information	
15.1 Specific regulations / legislation about substance, relating to safety, health and environmental protection. Applicable European regulations and laws:	



Material Safety Data Sheet
In accordance with Regulation (EU) No. 878/2020
ALUMINIUM SULPHATE SOLID, CRYSTALOHIDATE

MSDS № 3,3 / august 2015

Version: 7 /

Revision date: 15.07.2022

Page 9 of 9

	<p>P280- Use protective gloves, clothing and goggles. 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/physician.. P406- Store in corrosive resistant/... container</p>
<p>16.2. Legend to abbreviations</p>	<p>PBT: Persistent, Bio-accumulative and Toxic; vPvB: very persistent, very bio-accumulative ; DNEL: Derived No-Effect levels; PNEC: Predictable No-Effect Concentrations; ADR: European Agreement concerning the International Carriage of Dangerous Goods by road; RID: Agreement concerning the International Carriage of Dangerous Goods by rail; IMDG: International Maritime Dangerous Goods Code; ICAO/IATA: International Air Transport Association.</p>
<p>16.3. Changes in Material Safety Data Sheet, from previous version.</p>	<p>Updated and prepared in accordance with Regulation (EU) 2015/830 and Regulation (EU) 2020/878 regarding Section 1.1., 2.3., 3.1., 3.2., 9.1., 9.2., 11.2. and 12.7. Additional changes have been made in Section 1.3. due to a change in the address registration of the company!</p>
<p>16.4. Written instructions and / or rights.</p>	<p>The information above is considered to be accurate and represents the best information currently available to us about this product. <i>However, we do not accept any warranty of merchantability or other warranties, express or implied, with respect to such information, nor do we assume any liability arising out of its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.</i> Consumers must make their own investigations to determine the information that is acceptable to them.</p>