



# Chemifloc Ltd.

## SAFETY DATA SHEET Aluminium Sulphate Solid

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

### Section 1: Identification of the substance/mixture and of the company/undertaking

#### Identification of the substance or mixture

<b>Product Name:</b>	Aluminium Sulphate Solid
<b>Chemical Name:</b>	Aluminium Sulphate
<b>Registration Number:</b>	01-2119531538-36
<b>Synonyms:</b>	Kibbled Alum, Powder Alum
<b>Date of first issue:</b>	17 January 2011
<b>Version number</b>	04
<b>Revision date:</b>	04-03-2016
<b>Supersedes date:</b>	07 August 2013

#### Relevant identified uses of the substance or mixture and uses advised against:

<b>Identified uses</b>	Use of aluminium salts in the treatment of raw water in the supply of either potable water or industrial process water Use of aluminium salts to treat waste water and in sludge treatment at waste water treatment plants (WWTP's)
<b>Uses advised against</b>	None

#### Details of the supplier of the safety data sheet

<b>Manufacturer:</b>	Chemifloc Ltd Smithstown, Shannon, Co. Clare, Rep. of Ireland. Tel: 00353 61 708699 Fax: 00353 61 708698 e-mail: <a href="mailto:info@chemifloc.ie">info@chemifloc.ie</a>
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**Emergency Telephone Number: National Poisons Information Centre,  
00353 1 8379964**

### Section 2: Hazards Identification

#### Classification of the substance

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classificatory applies.

#### Classification according to Regulation (EC) no 1272/2008 as amended

##### Health hazards

Serious eye damage/eye irritation      Category 1      H318 ó Causes serious eye damage

#### Hazard summary

**Physical hazards**      Not classified for physical hazards.

**Health hazards**      Risk of serious damage to eyes. Occupational exposure to the substance may cause adverse health effects

**Environmental hazards**      Not classified for hazards to the environment.

**Specific hazards**      For additional information on inhalation hazards, see Section 11 of this safety data sheet

**Main symptoms**      Not available.

**Label elements**

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: Aluminium Sulphate



**Signal word** Danger  
**Hazard statements** H318 ó Causes serious eye damage.

**Precautionary statements**

**Prevention** P280 ó Wear eye/face protection  
P261- Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash hands thoroughly after handling.  
**Response** P305+351+338 ó 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.

Hazardous components which must be listed on the label:

10043-01-3 Aluminium Sulphate

Further information The product is classified and labeled in accordance with EC directives or respective national laws.

Other hazards:

**Inhalation;** Possible risk for irritation of respiratory organs and skin.**Potential environmental effects;** May lower the pH of water and thus be harmful to aquatic organisms.**Section 3: Composition/Information on Ingredients****Substance****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Aluminium Sulphate	17% as Al <sub>2</sub> O <sub>3</sub>	10043-01-3 233-135-0	01-2119531538-36	-	#

**Classification:** CLP: Eye Dam, 1;H318**Composition comments** The full text for all R- and H-phrases is displayed in section 16.**Section 4: First Aid Measures****General information**

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. No hazards which require special first aid measures.

**Description of first aid measures****Inhalation**

If dust from the material is inhaled, remove the affected person immediately to fresh air. Get medical attention, if needed.

**Skin contact**

Immediately flush skin with plenty of water. Get medical attention if irritation develops or persists.

**Eye contact**

Important! Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If possible use lukewarm water. Consult a physician. Do not rub the eyes, mechanical irritation. Continue rinsing eyes during transport to hospital.

**Ingestion**

If ingestion of a large amount does occur, seek medical attention. Rinse mouth with water.

**Most important symptoms and effects, both acute and delayed**

Corrosive effects, May cause irreversible eye damage. Show this safety data sheet to the doctor in attendance.

**Indication of any immediate medical attention and special treatment needed**

Rinse with plenty of water.

## Section 5: Firefighting measures

<b>General fire hazards</b>	Non-combustible, substance itself does not burn.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Use fire-extinguishing media appropriate for surrounding materials.
<b>Unsuitable extinguishing Media</b>	None known.
<b>Special hazards arising from the substance or mixture</b>	The product itself does not burn. No unusual fire or explosion hazards noted. May decompose upon heating to produce corrosive and/or toxic fumes. Sulphur Oxides (SOx).
<b>Advice for firefighters</b>	
<b>Special protective equipment for firefighters</b>	Wear self-contained breathing apparatus and protective clothing.
<b>Special firefighting procedures</b>	No unusual fire or explosion hazards noted.

## Section 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Stay upwind. Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits.
<b>For emergency responders</b>	Not available.
<b>Environmental precautions</b>	No special environmental precautions required.
<b>Methods and material for containment and cleaning up</b>	Should not be released into the environment. Prevent entry into waterways, sewers, basements or confined areas. If sweeping of a contaminated area is necessary use a dust suppressant agent which does react with the product. Sweep up or vacuum up spillage and collect in suitable container for disposal. Collect dust using a vacuum cleaner equipped with HEPA filter. Avoid the generation of dusts during clean-up. After removal flush contaminated area thoroughly with water. This material and its container must be disposed of as hazardous waste. For waste disposal, see Section 13.
<b>Reference to other sections</b>	Not available.

## Section 7: Handling and storage

<b>Precautions for safe handling</b>	Avoid dust formation. Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust from this material. In case of insufficient ventilation, wear suitable respiratory equipment. Do not get this material in contact with eyes. Avoid contact with skin and eyes. Avoid prolonged exposure. Wash thoroughly after handling. Practice good housekeeping. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.
<b>Conditions for safe storage, including any incompatibilities</b>	Avoid moisture. Keep in a dry place. Avoid freezing. Avoid high temperatures. Keep away from incompatible materials.
<b>Materials for packaging:</b>	Suitable material: plastic (PE, PP, PVC), fiberglass-reinforced polyester, epoxy-coated concrete, titanium, acidproof or rubber-coated steel.
<b>Materials to avoid:</b>	Bases, non-acid proof metals (for example aluminium, copper and iron), Avoid contact with unalloyed steel or galvanized surfaces.
<b>Other data:</b>	Stable under recommended storage conditions.
<b>Specific end use(s)</b>	The specified uses for this material are shown in section 1 of this document.

## Section 8: Exposure controls / personal protection

### Control parameters

#### Occupational exposure limits

Ireland

United Kingdom

#### Components

Aluminium sulphate  
(10043-01-3)

#### Type

TWA

#### Value

2 mg/m<sup>3</sup>

#### Form

Soluble aluminium salts

#### Biological limit values

No biological exposure limits noted for the ingredient(s).

#### Recommended monitoring procedures

Not available.

#### DNEL

#### Components

Aluminium Sulphate (10043-01-3)

#### Type

Consumer

#### Route

Oral

#### Value

3.4 mg/kg  
bw/day

#### Form

Long term Systemic effects

Industry

Inhalation

20.2 mg/m<sup>3</sup>

Long term Systemic effects

#### PNEC

#### Components

Aluminium sulphate(10043-01-3)

#### Type

Not applicable

#### Route

STP

#### Value

20 mg/l

#### Form

Water

0.3 µg/l

Freshwater

Water

0.03 µg/l

Marine water

### Exposure Controls

#### Appropriate engineering controls

Ventilation should be sufficient to effectively remove and prevent build-up of any dusts or fumes that may be generated during handling or thermal processing. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

#### Individual protection measures, such as personal protective equipment.

#### General information

Use personal protective equipment as required. Eye wash fountain is recommended. Keep working clothes separately.

#### Eye/face protection

Wear eye/face protection. (EN166)

#### Skin protection

##### - Hand protection

PVC or other plastic material gloves. (EN374)

##### - Other

Normal work clothing (long sleeved shirts and long pants) is recommended.

#### Respiratory protection

Wear a dust mask if dust is generated above exposure limits. (EN149)

#### Thermal hazards

Not available

## Section 9: Physical and chemical properties

### Information on basic physical and chemical properties

#### General information (Appearance, odour)

##### Physical State

Solid, granules

##### Colour

White

##### Odour

Not significant

#### Important health safety and environmental information

##### pH

ca. 3 (10% solution)

##### Melting point/range

not applicable

##### Boiling point / range

not applicable, In accordance with column 2 of REACH Annex VII, the study does not need to be conducted.

##### Flash point

not applicable, In accordance with column 2 of REACH Annex VII, the study does not need to be conducted., inorganic compound

##### Flammability (solid, gas)

does not sustain combustion.

##### Explosive properties

##### - Lower explosive limit

not applicable

##### - Upper explosive limit

##### Vapour Pressure

not applicable, In accordance with column 2 of REACH Annex VII, the study does not need to be conducted.

##### Bulk Density

950 - 990 kg/m<sup>3</sup>

<b>Solubility(ies)</b>	
- <b>Water solubility</b>	water soluble
<b>Partition coefficient (n-octanol/water)</b>	not applicable, inorganic compound.
<b>Thermal Decomposition</b>	650°C
<b>Other information</b>	no relevant additional information available.

## Section 10: Stability and reactivity

<b>Reactivity</b>	Can corrode base metals in the presence of water.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	Corrodes metals under influence of moisture.
<b>Conditions to avoid</b>	Corrosion might appear in contact with moisture. Humidity or contact with water may cause lumpiness.
<b>Incompatible materials</b>	Bases non-acid proof metals (for example aluminium, copper and iron) Avoid contact with unalloyed steel or galvanized surfaces.
<b>Hazardous decomposition products</b>	sulphur oxides (SO <sub>x</sub> )
<b>Thermal decomposition</b>	650°C.

## Section 11: Toxicological information

<b>General information</b>	Not available.
<b>Information on likely routes of exposure</b>	
<b>Ingestion</b>	Not applicable.
<b>Inhalation</b>	Inhalation of dusts may cause respiratory irritation.
<b>Skin contact</b>	Not applicable.
<b>Eye contact</b>	Causes serious eye damage.
<b>Symptoms</b>	Not available.

### Information on toxicological effects.

<b>Acute toxicity</b>	Not classified.
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Components	Test results
Aluminium Sulphate (10043-01-3)	Acute Dermal LD50 Rat > 5000 mg/kg Acute Inhalation LC50 Rat > 5000 mg/m <sup>3</sup> 4.00 hours Acute Oral LD50 Rat: 2000-5000 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Not classified.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage. Dust in the eyes will cause irritation.
<b>Respiratory sensitization</b>	Not classified.
<b>Skin sensitisation</b>	Not classified.
<b>Germ cell mutagenicity</b>	Not classified.
<b>Carcinogenicity</b>	Not classified.
<b>Reproductive toxicity</b>	Not classified.
<b>Specific target organ Toxicity – single exposure</b>	Not classified.
<b>Specific target organ Toxicity – repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not classified
<b>Mixture versus substance Information</b>	Not known
<b>Other information</b>	None known.

## Section 12: Ecological information

### Toxicity.

Components	Test results
Aluminium Sulphate	NOEC Brook trout ( <i>Salvelinus fontinalia</i> ): 13µg/l 60.00 days dissolved Al LC50 Brown trout ( <i>Salmo trutta</i> ): 15µg/l 42.00 days dissolved Al EC50 Daphnia: 212 ó 1260 µg/l 48.00 hours dissolved Al EC50 Daphnia: > 200 mg/l 48.00 hours

\* Estimates for product may be based on additional component data not shown.

<b>Persistence and degradability</b>	The product solely consists of inorganic compounds which are not biodegradable.
<b>Bioaccumulative potential</b>	Not assigned.
<b>Mobility</b>	Not assigned.
<b>Environmental fate – Partition coefficient</b>	Not applicable.
<b>Mobility in soil</b>	Not assigned.
<b>Results of PBT and vPvB assessment</b>	None known.
<b>Other adverse effects</b>	None known.

## Section 13: Disposal considerations

### Waste treatment methods

### Waste treatment methods

<b>Residual waste</b>	Dispose in accordance with local regulations.
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>EU waste code</b>	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Disposal methods/information</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not dispose of waste into sewer. Dispose of contents/container in accordance with local/regional/international regulations.

## Section 14: Transport information

<b>ADR</b>	Not classified as dangerous in the meaning of transport regulations.
<b>IATA</b>	Not classified as dangerous in the meaning of transport regulations.
<b>IMDG</b>	Not classified as dangerous in the meaning of transport regulations.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	No information available.

## Section 15: Regulatory information

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

### EU Regulations

**Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I**

Not listed.

**Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II**

Not listed.

**Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V**

Not listed.

**Commission Decision 2000/479/EC on the implementation of a European pollutant emission register (EPER)**

Not listed.

**Regulation (EC) No. 1907/2006, Article 59(1). Candidate List**

Not listed.

**National regulations** Not available.

**Other regulations** Prepared in accordance with Annex II of the REACH Regulation (EC) 1907/2006 as amended by Commission Regulation (EU) 453/2010, and with CLP Regulation (EC) 1272/2008.

### Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances(PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

## Section 16: Other information

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

H318 Causes serious eye damage

**Training advice** Not available

**Further information**

**Disclaimer:**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revised sections                      Changes made to this document since the previous revision can be found in section(s), 8, 11, 12, 13.

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