

## SAFETY DATA SHEET

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

## 1.1 Product identifier

- **UFI No:** **FM30-40N6-V006-6P6H**
- Product Name: Clear Tabs
- Product Part Number: 042
- Chemical Name: Aluminium sulphate
- Synonyms: Aluminum sulfate
- CAS No.: 10043-01-3
- EC No.: 233-135-0
- REACH Registration Number: 01-2119531538-36-XXXX

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

- Use of the substance/mixture: Pool / spa treatment
- Use advised against: No information available

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

- Name of Supplier: Plastica Ltd
- Address of Supplier: Perimeter House  
Napier Road  
St Leonards-on-Sea  
East Sussex  
United Kingdom  
TN38 9NY
- Telephone: +44 (0) 1424 857857
- Email: info@plasticapools.net

## 1.4 Emergency telephone number

- Emergency Telephone: 0800 043 0891 (technical)  
0800 043 0892 (emergency)

**SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

- Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]: Eye Dam. 1, H318
- Additional information: For full text of Hazard and EU Hazard statements: see section 16

## 2.2 Label elements



- Signal Word: Danger
- Hazard statements  
H318 - Causes serious eye damage.
- Precautionary statements  
P102 - Keep out of reach of children.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338+P310 - 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 or doctor/physician.  
P501 - Dispose of contents/container to an authorised waste collection point

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**SECTION 2: Hazards identification (....)**

- Supplemental Hazard information (EU)  
None

## 2.3 Other hazards

- May corrode metals in the presence of moisture
  - Not a PBT according to REACH Annex XIII
  - Not a vPvB according to REACH Annex XIII
  - Does not contain any substances with endocrine disrupting properties
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**SECTION 3: Composition/information on ingredients**

## 3.1 Substances

Chemical Name	Conc.	CAS No.	EC No.	Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]	SCL/ M-Factor/ ATE	REACH Registration Number	WEL/ OEL
Aluminium sulphate	100%	10043-01-3	233-135-0	Met. Corr. 1, H290 Eye Dam. 1, H318	-	01-2119531538-36-XXXX	Yes

- Met. Corr. 1 only applies to aqueous solutions

## 3.2 Mixtures

- Not applicable
- 

**SECTION 4: First aid measures**

## 4.1 Description of first aid measures

- Rescuers should put on approved personal protective equipment (PPE) before administering first aid
- Rescuers should take suitable precautions to avoid becoming casualties themselves
- Contact with eyes  
If substance has got into eyes, immediately wash out with plenty of water for several minutes  
Irrigate eyes thoroughly whilst lifting eyelids  
Remove contact lenses, if present and easy to do. Continue rinsing.  
Get immediate medical advice/attention.
- Contact with skin  
Wash affected area with plenty of soap and water  
Take off contaminated clothing and wash it before reuse.  
If skin irritation occurs: Get medical advice/attention.
- Ingestion  
Rinse mouth with water (do not swallow)  
Give small amounts of water to drink  
Stop if the exposed person feels sick as vomiting may be dangerous  
Do NOT induce vomiting.  
Never give anything by mouth to an unconscious person  
Get medical advice/attention.
- Inhalation  
If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Rinse mouth and nose with water.  
When in doubt or symptoms persist, seek medical attention

## 4.2 Most important symptoms and effects, both acute and delayed

- Contact with eyes  
Causes redness and swelling
-

**SECTION 4: First aid measures (....)**

May cause severe damage with formation of corneal ulcers and permanent impairment of vision.

- Contact with skin  
May cause redness and irritation
- Ingestion  
May cause nausea/vomiting  
May cause diarrhoea
- Inhalation  
May cause respiratory tract irritation.  
May cause shortness of breath  
May cause coughing

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

- Treat symptomatically
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**SECTION 5: Firefighting measures****5.1 Extinguishing media**

- Suitable extinguishing media: In case of fire use water spray or fog, alcohol resistant foam, dry chemical or carbon dioxide
- Unsuitable extinguishing media: High volume water jet

**5.2 Special hazards arising from the substance or mixture**

- This substance will hydrolyze in water to form sulphuric acid
- Gives off irritating or toxic fumes (or gases) in a fire.
- Decomposition products may include sulphur oxides

**5.3 Advice for firefighters**

- Evacuate the area and keep personnel upwind
  - Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.
  - Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.
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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

- Rescuers should take suitable precautions to avoid becoming casualties themselves
- Only trained and authorised personnel should carry out emergency response
- Personal precautions for non-emergency personnel: Ensure adequate ventilation; Do not breathe dust/fume/gas/mist/vapours/spray.; Wear protective clothing as per section 8; Wash thoroughly after handling.
- Personal precautions for emergency responders: Evacuate the area and keep personnel upwind; Wear self-contained breathing apparatus (SCBA); Wear suitable protective clothing, eye/face protection and gloves; Natural rubber are recommended

**6.2 Environmental precautions**

- Avoid release to the environment.
- Do not allow to enter public sewers and watercourses
- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities

**6.3 Methods and material for containment and cleaning up**

- Stop leak if safe to do so.
  - Avoid formation of dust
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**SECTION 6: Accidental release measures (....)**

- Sweep or shovel-up spillage and remove to a safe place
- Do not mix with water
- Place in sealable container
- Seal containers and label them
- Ventilate the area and wash spill site after material pick-up is complete
- Seek expert advice for removal and disposal of all contaminated materials and wastes

## 6.4 Reference to other sections

- See section(s): 7, 8 & 13
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**SECTION 7: Handling and storage**

## 7.1 Precautions for safe handling

- Use only in well ventilated areas
- Do not breathe dust
- Protect from moisture.
- Avoid contact with skin and eyes
- Wear goggles giving complete eye protection
- Wear protective clothing as per section 8
- Contaminated clothing should be laundered before reuse
- Use good personal hygiene practices
- Do not eat, drink or smoke when using this product.
- Wash thoroughly after handling.
- Ensure eyewash stations and safety showers are nearby

## 7.2 Conditions for safe storage, including any incompatibilities

- Store in a cool, dry well-ventilated place. Keep container tightly closed.
- Avoid using metal containers or equipment, except stainless steel
- Avoid freezing
- Avoid high temperatures
- Protect from moisture
- Keep away from food, drink and animal feedingstuffs
- Incompatible with oxidizing substances
- Incompatible with alkalis (strong bases)

## 7.3 Specific end use(s)

- Pool / spa treatment
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**SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

- If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.  
Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace exposure - Measurement of exposure by inhalation to chemical agents - Strategy for testing compliance with occupational exposure limit values). European Standard EN 14042 (Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents). European Standard EN 482 (Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
  - The UK HSE (EH40) recommends the following limits for dusts: 10 mg/m<sup>3</sup> (8hr TWA) total inhalable dust; 4 mg/m<sup>3</sup> (8hr TWA) total respirable dust
  - Aluminium sulphate  
WEL (long term): 2 mg/m<sup>3</sup> (UK as aluminium; salts, soluble)
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**SECTION 8: Exposure controls/personal protection (....)**

DNEL (inhalational) 3 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects  
 DNEL (inhalational) 2 mg/m<sup>3</sup> Industry, Acute/Short Term, Systemic Effects  
 DNEL (inhalational) 3 mg/m<sup>3</sup> Industry, Long Term, Local Effects  
 DNEL (inhalational) 2 mg/m<sup>3</sup> Industry, Acute/Short Term, Local Effects  
 DNEL (dermal) 1.71 mg/kg (bw/day) Industry, Long Term, Systemic Effects  
 DNEL (dermal) 46.7 mg/kg (bw/day) Industry, Acute/Short Term, Systemic Effects  
 DNEL (dermal) 882 µg/cm<sup>2</sup> Industry, Long Term, Local Effects  
 DNEL (dermal) 882 µg/cm<sup>2</sup> Industry, Acute/Short Term, Local Effects  
 DNEL (inhalational) 1.5 mg/m<sup>3</sup> Consumer, Long Term, Systemic Effects  
 DNEL (inhalational) 1 mg/m<sup>3</sup> Consumer, Acute/Short Term, Systemic Effects  
 DNEL (inhalational) 1.5 mg/m<sup>3</sup> Consumer, Long Term, Local Effects  
 DNEL (inhalational) 1 mg/m<sup>3</sup> Consumer, Acute/Short Term, Local Effects  
 DNEL (dermal) 855 µg/kg (bw/day) Consumer, Long Term, Systemic Effects  
 DNEL (dermal) 23.35 mg/kg (bw/day) Consumer, Acute/Short Term, Systemic Effects  
 DNEL (dermal) 441 µg/cm<sup>2</sup> Consumer, Long Term, Local Effects  
 DNEL (dermal) 441 µg/cm<sup>2</sup> Consumer, Acute/Short Term, Local Effects  
 DNEL (oral) 1.9 mg/kg (bw/day) Consumer, Long Term, Systemic Effects  
 DNEL (oral) 92.4 mg/kg (bw/day) Consumer, Acute/Short Term, Systemic Effects  
 PNEC aqua (freshwater) 4.5 mg/L  
 PNEC aqua (intermittent releases, freshwater) 30.11 mg/L  
 PNEC aqua (marine water) 64 mg/L  
 PNEC (STP) 60.2 mg/L  
 PNEC sediment (freshwater) 10 mg/kg  
 PNEC sediment (marine water) 31.4 mg/kg  
 PNEC (air) 2 mg/m<sup>3</sup>  
 PNEC terrestrial (soil) 58 mg/kg  
 PNEC secondary poisoning (food) 150 mg/kg

**8.2 Exposure controls**

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential
- Engineering controls  
Engineering controls should be provided which maintain airborne concentrations below the relevant guidelines  
Use local exhaust ventilation and/or enclosures.
- Respiratory protection  
In case of insufficient ventilation, wear suitable respiratory equipment  
Where a reusable half mask respirator is required, use EN 140 mask and EN 143 particle filter, or EN 1827  
Where a full face mask respirator is required, use EN 136, with particle filter EN 143
- Eye/face protection  
Wear goggles giving complete eye protection approved to standard EN 166.  
If necessary, wear face-shield approved to standard EN 166 1B39N
- Skin protection  
Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.  
The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted.  
Natural rubber are recommended  
Wear suitable protective clothing
- Hygiene measures  
Do not eat, drink or smoke when using this product.  
Use good personal hygiene practices  
Wash thoroughly after handling.  
Contaminated clothing should be laundered before reuse  
Contaminated work clothing should not be allowed out of the workplace.  
Ensure eyewash stations and safety showers are nearby

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**SECTION 8: Exposure controls/personal protection (....)**

- Environmental exposure controls  
Do not empty into drains  
Do not allow to penetrate the ground/soil.




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**SECTION 9: Physical and chemical properties**

## 9.1 Information on basic physical and chemical properties

- Physical state: Solid (crystals)
- Colour: White
- Odour: Odourless
- Melting point/freezing point: 349.84 - 770 °C @ 0 - 101 325 Pa
- Boiling point or initial boiling point and boiling range: 798.27 - 806.45 °C @ 101 325 Pa
- Flammability: Not flammable
- Lower and upper explosion limit: Not applicable
- Flash point: Not applicable
- Auto-ignition temperature: Not applicable
- Decomposition temperature: No information available
- pH: 3 (1% solution in water)
- Kinematic viscosity: Not applicable
- Solubility: Solubility in water: 86.9 g/100 mL @ 0 °C; 1104 g/100 mL @ 100 °C
- Partition coefficient n-octanol/water (log value): - 5.075 @ 25 °C and pH 7
- Vapour pressure: 0 - 0.001 Pa @ 20 - 25 °C
- Density and/or relative density: 1.69 @ 17 - 20 °C
- Relative vapour density: No information available
- Particle characteristics: No information available

## 9.2 Other information

- Information with regard to physical hazard classes  
Met. Corr. 1 only applies to aqueous solutions  
This substance will hydrolyze in water to form sulphuric acid  
Molecular formula:  $\text{Al}_2(\text{SO}_4)_3$   
Molecular weight: 342.14 g/mole + (14 - 18)  $\text{H}_2\text{O}$

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**SECTION 10: Stability and reactivity**

## 10.1 Reactivity

- No hazardous reactions known if used for its intended purpose

## 10.2 Chemical stability

- Stable under normal conditions

## 10.3 Possibility of hazardous reactions

- Hygroscopic
- May corrode metals in the presence of moisture
- Reacts with alkalis (strong bases)
- Reacts with oxidizing substances

## 10.4 Conditions to avoid

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**SECTION 10: Stability and reactivity (....)**

- Avoid formation of dust
- Avoid contact with moisture
- Avoid extremes of temperature

## 10.5 Incompatible materials

- Incompatible with oxidizing substances
- Incompatible with alkalis (strong bases)

## 10.6 Hazardous decomposition products

- Decomposition products may include sulphur oxides
- 

**SECTION 11: Toxicological information**

## 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

- Acute Toxicity

## Substances

Chemical Name	LD <sub>50</sub> (oral, rat)	LC <sub>50</sub> (inhalation, rat)	LD <sub>50</sub> (dermal, rabbit)
Aluminium sulphate	2 000 - 5 000 mg/kg	(4 h) 5 - 5.09 mg/L	1 167.5 - 5 000 mg/kg

- Skin corrosion/irritation  
No adverse effect observed (not irritating)
- Serious eye damage/irritation  
Causes serious eye damage
- Respiratory or skin sensitisation  
No adverse effect observed (not sensitising)
- Germ cell mutagenicity  
No evidence of mutagenic effects
- Carcinogenicity  
No evidence of carcinogenic effects

## Substances

Chemical Name	NOAEL (oral, rat)	NOAEC (inhalation, rat)	NOAEL (dermal, rat)
Aluminium sulphate	850 mg/kg bw/day (mouse)	6.1 mg/m <sup>3</sup>	6.8 mg/kg bw/day (mouse)

- Reproductive toxicity  
No evidence of reproductive effects

## Substances

Chemical Name	NOAEL (oral, rat)	NOAEC (inhalation, rat)	LOAEC (inhalation, rat)	NOAEL (dermal, rat)	LOAEL (dermal, mouse)
Aluminium sulphate	5.41 mg/kg bw/day (Effect on fertility) 93 mg/kg bw/day (Effect on developmental toxicity)	38.6 mg/m <sup>3</sup> (Effect on fertility)	12 mg/m <sup>3</sup> (Effect on developmental toxicity)	2.48 mg/kg bw/day (Effect on fertility)	2.21 mg/kg bw/day (Effect on developmental toxicity)

- Specific target organ toxicity (STOT) - single exposure  
Based on the available data, the classification criteria are not met
- Specific target organ toxicity (STOT) - repeated exposure  
Based on available data, the classification criteria are not met

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**SECTION 11: Toxicological information (....)**

## Substances

Chemical Name	NOAEL (inhalation, rat)	NOAEC (inhalation, rat)	NOAEL (dermal, rat)
Aluminium sulphate	342 mg/kg bw/day	15 mg/m <sup>3</sup> air	8.55 mg/kg bw/day

- Aspiration hazard  
Based on available data, the classification criteria are not met
- Contact with eyes  
Causes redness and swelling  
May cause severe damage with formation of corneal ulcers and permanent impairment of vision.
- Contact with skin  
May cause redness and irritation
- Ingestion  
May cause nausea/vomiting  
May cause diarrhoea
- Inhalation  
May cause respiratory tract irritation.  
May cause shortness of breath  
May cause coughing

## 11.2 Information on other hazards

- Does not contain any substances with endocrine disrupting properties
- 

**SECTION 12: Ecological information**

## 12.1 Toxicity

- Based on available data, the classification criteria are not met

## Substances

Chemical Name	LC <sub>50</sub> (fish)	EC <sub>50</sub> (aquatic invertebrates)	EC <sub>50</sub> (aquatic algae)
Aluminium sulphate	(8 days) 122.17 - 161.4 mg/L	(48 h) 1.4 - 200 mg/L	(72 h) 40 - 100 000 µg/L

## 12.2 Persistence and degradability

- Not applicable; inorganic

## 12.3 Bioaccumulative potential

- BCF: 362 L/kg ww

## 12.4 Mobility in soil

- Large volumes may penetrate soil and contaminate groundwater

## 12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

## 12.6 Endocrine disrupting properties

- Not applicable

## 12.7 Other adverse effects

- Do not empty into drains



**SECTION 13: Disposal considerations**

## 13.1 Waste treatment methods

- Disposal should be in accordance with local, state or national legislation
- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- Do not reuse empty containers without commercial cleaning or reconditioning

## 13.2 Classification

- The waste must be identified according to the List of Wastes (2000/532/EC)
  - Hazardous Property Code(s): HP 4 Irritant
- 

**SECTION 14: Transport information**

Not classified as hazardous for transport

## 14.1 UN number or ID number

- UN No.: Not applicable

## 14.2 UN proper shipping name

- Proper Shipping Name: Not applicable

## 14.3 Transport hazard class(es)

- Hazard Class: Not applicable

## 14.4 Packing group

- Packing Group: Not applicable

## 14.5 Environmental hazards

- Not Classified

## 14.6 Special precautions for user

- Not Classified

## 14.7 Maritime transport in bulk according to IMO instruments

- Not applicable

## 14.8 Road/Rail (ADR/RID)

- ADR UN No.: Not applicable
- Proper Shipping Name: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

## 14.9 Sea (IMDG)

- IMDG UN No.: Not applicable
- Proper Shipping Name: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Pack Group.: Not applicable

## 14.10 Air (ICAO/IATA)

- ICAO UN No.: Not applicable
- Proper Shipping Name: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

**SECTION 15: Regulatory information**

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

- This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 (as amended by Regulation (EU) 2020/878) and UK REACH
- The GB Classification, Labelling and Packaging Regulation (GB CLP) applies in Great Britain
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe

## 15.2 Chemical safety assessment

- A REACH chemical safety assessment has not been carried out
- 

**SECTION 16: Other information**

This 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. Such information is, to the best of PLASTICA'S limited knowledge and belief, accurate, and reliable as of the date of authorisation of this safety data sheet. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to be satisfied as to the suitability and completeness of such information for the product as used.

Sources of data: Information from published literature and supplier safety data sheets

Revision No. 2.0.0. Revised February 2021.

Changes made: Changes to classification and updated to conform to latest version of REACH

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- H290: May be corrosive to metals
- H318: Causes serious eye damage

## Acronyms

- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstracts Service
- DNEL: Derived No-Effect Level
- EC: European Community
- EC<sub>50</sub>: Effective Concentration, 50%
- GHS: Globally Harmonised System
- LC<sub>50</sub>: Lethal Concentration, 50%
- LD<sub>50</sub>: Lethal Dose, 50%
- LOAEC: Lowest observed adverse effect concentration
- LOAEL: Lowest Observed Adverse Effect Level
- NOAEC: No observed adverse effect concentration
- NOAEL: No observed adverse effect level
- OEL: Occupational Exposure Limit
- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- SCL: Specific Concentration Limit
- SVHC: Substances of Very High Concern
- vPvB: very Persistent and very Bioaccumulative
- WEL: Workplace Exposure Limit

--- end of safety datasheet ---

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