Material Safety Data Sheet
According to 1907/2006/EC - Article 31

1. Identification of the substance/preparation and of the company/undertaking

1.1 Product Identifier
- **Trade Name:** Aluminium Sulphate
- **Other Names:** Kibbled or Ground Aluminium Sulphate/Granular Floc
- **CAS No:** 10043 - 01 - 03
- **EC No:** 233 - 135 - 0

1.2 Relevant Identified uses of the substance or mixture and uses advised against
- **Uses:** Coagulant for water treatment
- **Restrictions:** At this time we do not have information on use restrictions

1.3 Details of the supplier of the safety data sheet
- **Company:** Complete Pool Controls Ltd
  - Unit 2, The Park
  - Stoke Orchard
  - Bishops Cleeve
  - Gloucestershire
  - GL52 7RS
- **Telephone:** +44 (0) 8712 229081
- **Fax:** +44 (0) 8712 229083
- **E-mail:** sales@cpc-chemicals.co.uk

1.4 Emergency Telephone
- **Tel:** +44 (0) 8712 229081 (office hours)

2. Hazard Identification

2.1 Classification of the substance or mixture
- **Classification according to Regulation (EC) No 1272/2008**

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Hazard Category</th>
<th>Target Organs</th>
<th>Hazard Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Irritation</td>
<td>Category 2</td>
<td></td>
<td>H319</td>
</tr>
<tr>
<td>Skin Irritation</td>
<td>Category 2</td>
<td></td>
<td>H315</td>
</tr>
</tbody>
</table>

For the full text of the H statements mentioned in this section see Section 16.

- **Classification according to EU Directives 67/548/EEC or 1999/45/EC**
  - **Hazard Symbol/Category of danger:** Irritant (Xi)
  - **Risk phrases:** R36/37/38

For the full text of the R phrases mentioned in this section see Section 16.

- **Most important adverse effects**
  - **Human Health:** See section 11 for toxicological information
  - **Physical & Chemical Hazards:** See section 9 for physicochemical information
  - **Potential environmental effects:** See section 12 for environmental information

2.2 Label elements
- **Labelling according to Regulation (EC) No 1272/2008**

<table>
<thead>
<tr>
<th>Hazard symbols:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signal word:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Warning</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazard statements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
</tbody>
</table>
2. Hazard Identification continued

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008

Precautionary statements:
Prevention: P280: Wear protective gloves/protective clothing/eye protection/face protection
P401: Store locked up

Response:
P101 If medical advice is needed, have product or label to hand.
P102 Keep out of reach of children

P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water
P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present
and easy to do – continue rinsing
P401 Store in accordance with local/national/ international regulations
P501 Dispose of contents / container in accordance with local/national/international regulations

Hazardous components which must be listed on the label
Aluminium Sulphate

2.3 Other Hazards
No other information is available

3. Composition/information on ingredients

3.1 Substances

Chemical nature: Granules

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Identification Numbers</th>
<th>Amount %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium Sulphate</td>
<td>EC NO: 233 - 135 - 0</td>
<td>47 - 57%</td>
</tr>
<tr>
<td></td>
<td>CAS NO: 10043 - 01 - 3</td>
<td></td>
</tr>
</tbody>
</table>

4. First Aid measures

4.1 Description of first aid measures

General Advice: Take off all contaminated clothing immediately.
If inhaled: Not normally applicable but as a precaution remove to fresh air and keep patient warm.
In case of skin contact: Wash off immediately with plenty of soap & water. If irritation appears seek medical advice
In case of eye contact: Rinse immediately with plenty of water, also under eyelids for at least 15 minutes. Remove
contact lenses.
If swallowed: Clean mouth with water and drink plenty of water. Never give anything by mouth to an
unconscious person. If swallowed, do not induce vomiting - seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No further information available
Effects: No further information available

4.3 Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically
No further information available
5. Fire fighting measures

5.1 Extinguishing media:
- Suitable extinguishing media: Will not burn, use media appropriate for surrounding material.
- Unsuitable extinguishing media: No information available

5.2 Special hazards arising from the substance or mixture
- Specific Hazards during fire: Thermal decomposition (>600°C) may liberate SO₂ fumes.

5.3 Advice for firefighters
- Special protective equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
- Further Information: Dispose of fire debris & contaminated fire fighting water in accordance with local regulations. Collect fire fighting water separately. It must not enter drains.

6. Accidental release Measures

6.1 Personal precautions, protective equipment and emergency procedures
- Personal Precautions: Use appropriate personal protective equipment as detailed in section 8.

6.2 Environmental precautions
- Environmental precautions: Do not let product enter drains, contain the material and sweep up.

6.3 Methods and materials for containment and cleaning up
- on ground: Flush with plenty of water, if possible neutralise with lime.
- on water: Inform police and/or fire brigade and appropriate authority

6.4 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

7. Handling and storage

7.1 Precautions for safe handling
- Advice on safe handling: Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin and eyes. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity. Do not mix with other products in their concentrated form.
- Hygiene measures: Keep away from food, drink and animal feeding stuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of the work day. Take off all contaminated clothing immediately. Provide adequate ventilation. Avoid contact with the skin and eyes.

7.2 Conditions for safe storage, including any incompatibilities.
- Requirements for storage areas and containers: Prevent any seepage into the ground
- Advice on protection against fire and explosion: No special measures required
- Further information: Store in cool, dry conditions in well sealed receptacles
- Advice on common storage: Keep away from food, drink and animal feedstuffs.
- Storage Temperature: No further information available

7.3 Specific end uses
- Specific use(s): No information available
8. Exposure control/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>Other OELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium Sulphate</td>
<td>CAS No: 10043 - 01 - 3</td>
</tr>
</tbody>
</table>

8 hr TWA

<table>
<thead>
<tr>
<th>ppm</th>
<th>mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Engineering measures
Refer to protective measures listed in sections 7 and 8

Personal protective equipment

Ventilation: No special ventilation requirements are normally necessary for this product. However, make sure that the work environment remains clean and that dusts are minimised.

Respiratory protection

Advice: Not required

Hand protection

Advice: The glove material has to be impermeable to the product/the substance/preparation. Take note of the information given by the producer concerning permeability, break through times, and of special and of special working conditions (mechanical strain, protective gloves should be replaced at first sign of wear.

Eye protection

Advice: Tightly fitting safety goggles

Skin and body protection

Advice: acid resistant protective clothing

Environmental exposure controls

General advice: Do not flush into surface water or sanitary sewer systems

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Solid</td>
</tr>
<tr>
<td>Colour</td>
<td>White</td>
</tr>
<tr>
<td>Odour</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Currently we do not have any information from our supplier about this.</td>
</tr>
<tr>
<td>pH @ 20°C</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting point</td>
<td>770°C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash point</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Currently we do not have any information from our supplier about this.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Currently we do not have any information from our supplier about this.</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>Currently we do not have any information from our supplier about this.</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>Currently we do not have any information from our supplier about this.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Currently we do not have any information from our supplier about this.</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>Currently we do not have any information from our supplier about this.</td>
</tr>
</tbody>
</table>
### 9. Physical and chemical properties continued

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density @ 20°C</td>
<td>1690</td>
</tr>
<tr>
<td>Water solubility:</td>
<td>Fully miscible</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Currently we do not have any information from our supplier about this.</td>
</tr>
<tr>
<td>Ignition temperature:</td>
<td>Currently we do not have any information from our supplier about this.</td>
</tr>
<tr>
<td>Thermal decomposition:</td>
<td>Currently we do not have any information from our supplier about this.</td>
</tr>
<tr>
<td>Viscosity, kinematic:</td>
<td>Currently we do not have any information from our supplier about this.</td>
</tr>
<tr>
<td>Explosive properties:</td>
<td>Currently we do not have any information from our supplier about this.</td>
</tr>
<tr>
<td>Oxidising properties:</td>
<td>Currently we do not have any information from our supplier about this.</td>
</tr>
</tbody>
</table>

#### 9.2 Other Information

No further information available

### 10. Stability and reactivity

#### 10.1 Reactivity

**Advice:** Avoid contact with chlorite/hypochlorite/sulphite/oxidising agents and cyanides.

#### 10.2 Chemical stability

**Advice:** No decomposition if stored and applied as directed

**Hazardous reactions:** Thermal decomposition (>600°C) may liberate SO\textsubscript{x} fumes.

#### 10.3 Possibility of hazardous reactions

**Conditions to avoid**

No information available

#### 10.5 Incompatible materials

**Materials to avoid:** Galvanised or aluminium surfaces

#### 10.6 Hazardous decomposition products

**Hazardous decomposition products:** Currently we do not have any information from our supplier about this.

### 11. Toxilogical Information

#### 11.1 Information on toxilogical effects

**Component:** Aluminium Sulphate

**CAS No:** 10043-01-3

<table>
<thead>
<tr>
<th>Value type</th>
<th>Value</th>
<th>Species</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>&gt;5,000 mg/kg</td>
<td>Rat</td>
<td>Causes skin irritation and soreness</td>
</tr>
<tr>
<td>LD50</td>
<td>6,207 mg/kg</td>
<td>mouse</td>
<td>Causes severe eye irritation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Causes gastric irritation, nausea, vomiting if large doses swallowed</td>
</tr>
</tbody>
</table>

**Irritation**

**Skin**

**Eyes**

**Oral**

**Inhalation**

**Remarks:** Irritating to mucous membranes and upper respiratory tract.
12. Ecological Information

12.1 Toxicity

Component: Aluminium Sulphate  
CAS No: 10043-01-3

Acute toxicity

Fish

Remark  Expected to be harmful

Toxicity to daphnia and other aquatic invertebrates

Remark  Expected to be harmful

12.2 Persistence and degradability  
No data available

12.3 Bioaccumulative potential  
No data available

12.4 Mobility in soil  
No data available

12.5 Results of PBT and P¡B assessment  
No data available

12.6 Other adverse effects

Additional ecological information

On contact with water, aluminium sulphate will hydrolyse to give dilute sulphuric acid and gelatinous aluminium hydroxide.

Discharge to the aquatic environment should be avoided since it may lead to localised adverse effects arising from the products physical properties. The clogging of tentacles, gills and filters of suspension feeders and the modification of the photosynthesis of algae and plankton may result from the presence of suspended particles and turbidity.

The product is an inorganic substance/preparation. During hydrolisation, a precepate is formed of metal hydroxide in the pH range 5 to 7. Due to this reaction the pH in the water phase decreases, if phosphates are present, metal phosphate complex may form.

13. Disposal Considerations

13.1 Waste treatment methods

Product:

Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.

Contaminated packaging:

Empty contaminated packaging's thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

European Waste Catalogue No:

No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.
## 14. Transport Information

### 14.1 UN Number
Not Classified

### 14.2 UN proper shipping name
- **ADR:** Aluminium Sulphate
- **RID:** Aluminium Sulphate
- **IMDG:** Aluminium Sulphate

### 14.3 Transport hazard class(es)
- **ADR Class:** Not Classified
- **RID Class:** Not Classified
- **IMDG Class:** Not Classified

### 14.4 Packaging Group
- **ADR:** Not Classified
- **RID:** Not Classified
- **IMDG:** Not Classified

### 14.5 Environmental hazards
- **Labelling according to 5.2.1.8 ADR:**
- **Labelling according to 5.2.1.8 RID:**
- **Labelling according to 5.2.1.8 IMDG:**
- **Classification as environmentally hazardous according to 2.9.3 IMDG:**

### 14.6 Special precautions for user
No data available

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
- **IMDG:** No data available

## 15. Regulatory Information

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

### 15.2 Chemical Safety Assessment
Currently we do not have any information from our supplier about this.
16. Other information

Full text of R-phrases referred to under sections 2 and 3

R36/37/38 Irritating to eyes, respiratory system and skin

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

H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation

This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty or merchantability, or fitness for any particular use, or any other warranty, express or implied, with respect to this information, and we assume no liability resulting from use of this information. Users should make their own investigations to determine the suitability of the information for their particular needs and uses.

• 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)
  RID: Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  IATA-DGR: Dangerous goods Regulations by the 'International Air Transport Association' (IATA)
  ICAO: International Civil Aviation Organization
  GHS: Globally Harmonized System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances.
  CAS: Chemicals Abstracts Service (division of the American Chemical Society)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date</th>
<th>By</th>
<th>Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>15/04/11</td>
<td>Linda Brueford</td>
<td>GHS label elements added and other minor editorial amendments</td>
</tr>
<tr>
<td>2</td>
<td>Jun-09</td>
<td>Linda Brueford</td>
<td>Updated to conform with REACH, references to legislation changed</td>
</tr>
<tr>
<td>1</td>
<td>21/11/2008</td>
<td>Linda Brueford</td>
<td>Sections 2 &amp; 3 Swapped</td>
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</tbody>
</table>