

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.11.2017

Version number 2

- **Product identifier**
- **Trade name:** ALUMINIUM SULPHATE
- **Article number:** PP0044
- **CAS Number:** 10043-01-3
- **EC number:**
233-135-0
- **Relevant identified uses of the substance or mixture and uses advised against**
Industrial use: Water treatment chemical. Hydrophobation of paper and board. There are no uses advised against.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Johannesburg
1 Berrange Road
Wadeville, Germiston
Tel: 011-821 3300

Port Elizabeth
127 Grahamstown Road
Deal Party, Port Elizabeth
Tel: 041-403 1000

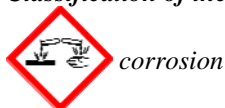
Cape Town
54 Killarney Avenue
Killarney Gardens, Milnerton, Cape Town
Tel: 021-550 8100

Jacobs
150 Quality Street,
Jacobs, Durban
Tel: 031-468 5424

Mobeni
90 Pendlebury Road,
Mobeni
Tel: 031-469 0165
- **Further information obtainable from:** Protea Chemicals
- **Emergency telephone number:**
08610 OMNIA or
08610 66642

2 Hazards identification

- **Classification of the substance or mixture**



Eye Dam. 1 H318 Causes serious eye damage.

.....



Skin Irrit. 2 H315 Causes skin irritation.

.....

Acute Tox. 5 H303 May be harmful if swallowed.

- **Label elements**

- **GHS label elements**

The substance is classified and labelled according to the Globally Harmonised System (GHS).

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Trade name: ALUMINIUM SULPHATE

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· **Hazard pictograms**



GHS05

· **Signal word** *Danger*

· **Hazard statements**

May be harmful if swallowed.

Causes skin irritation.

Causes serious eye damage.

· **Precautionary statements**

Wear protective gloves / eye protection / face protection.

Wash thoroughly after handling.

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.

Specific treatment (see on this label).

If skin irritation occurs: Get medical advice/attention.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** *Not applicable.*

· **vPvB:** *Not applicable.*

3 Composition/information on ingredients

· **Chemical characterisation:** *Substances*

· **CAS No. Description**

ALUMINIUM SULPHATE

· **Identification number(s)**

· **EC number:** 233-135-0

4 First aid measures

· **Description of first aid measures**

· **General information:** *Show this safety data sheet to the doctor in attendance.*

· **After inhalation:** *Supply fresh air; consult doctor in case of complaints.*

· **After skin contact:** *Wash off with soap and plenty of water. Wash contaminated clothing before re-use.*

· **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*

· **After swallowing:**

Rinse mouth with water. Drink 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

· **Information for doctor:**

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

Symptoms: corrosive effects. May cause irreversible eye damage.

· **Indication of any immediate medical attention and special treatment needed** *Rinse with plenty of water*

5 Firefighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** *No materials to be especially mentioned.*

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- **Special hazards arising from the substance or mixture**
Heating above the decomposition temperature will release toxic gases. [sulphur oxides (SO_x)]
- **Advice for firefighters**
Exposure to decomposition products may be a hazard to health, in the event of fire, wear protective clothing.
- **Protective equipment:** Use breathing apparatus with independent air supply (Isolated)

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective gear. Do not inhale the material or its combustion products. Go against the wind and keep out of low areas. Evacuate personnel to safe area.
- **Environmental precautions:**
Do not allow to enter sewers/ surface or ground water. Should not be released into the environment.
- **Methods and material for containment and cleaning up:**
Pick up mechanically. Sweep up and shovel. Keep in suitable, closed containers for disposal.
- **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

- **Handling:**
- **Precautions for safe handling**
No special precautions are necessary if used correctly. Avoid contact with skin, eyes and clothing.
- **Information about fire - and explosion protection:**
Put on appropriate personal protective equipment. Keep away from open flames, shut off the production of sources of ignition. Electricity: static electricity, electricity sparks, heat. Do not breathe vapor or mist. No smoking.
- **Conditions for safe storage, including any incompatibilities**
Avoid moisture. The product is hygroscopic, keep in a dry place. Avoid high temperatures. Keep away from incompatible materials.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Observe the rules usually applicable when handling chemicals.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep containers tightly closed in a cool, well-ventilated place.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:**
Ensure eyewash stations and safety showers are close to the workstation location.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.

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Avoid contact with the eyes.

· **Respiratory protection:**

In case of dust formation, wear micro dust mask. Use respiratory equipment with suitable filter or wear a self contained respiratory apparatus.

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Glove material: PVC and neoprene gloves. Break through time: >480 min.

· **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:**

Safety glasses



Tightly sealed goggles

· **Body protection:** Wear protective clothing if necessary.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Solid
· Colour:	White
· Odour:	Odourless
· Odour threshold:	Not determined.

· **pH-value (100 g/l) at 25 °C:** ca 3

· **Change in condition**

· Melting point/freezing point:	770 °C (Zers.)
· Initial boiling point and boiling range:	Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Product is not flammable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Not determined.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

· Lower:	Not determined.
· Upper:	Not determined.

· **Vapour pressure:** Not applicable.

· **Density at 20 °C:** 1,7 g/cm³

· **Bulk density at 20 °C:** 920-1020 kg/m³

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· Relative density	<i>Not determined.</i>
· Vapour density	<i>Not applicable.</i>
· Evaporation rate	<i>Not applicable.</i>
· Solubility in / Miscibility with water at 20 °C:	<i>300 g/l</i>
· Partition coefficient: n-octanol/water:	<i>Not determined.</i>
· Viscosity:	
Dynamic:	<i>Not applicable.</i>
Kinematic:	<i>Not applicable.</i>
· Other information	<i>No further relevant information available.</i>

10 Stability and reactivity

- **Reactivity** *Can corrode base metals in the presence of water.*
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions** *Hazardous reactions: Corrode metals under influence of moisture.*
- **Conditions to avoid**
Corrosion might appear in contact with moisture. Humidity or contact with water may cause lumpiness.
- **Incompatible materials:**
Ammonia gas and strong bases. Non-acid proof metals (E.g. aluminium, copper and iron) Avoid contact with unalloyed steel or galvanized surfaces.
- **Hazardous decomposition products:**
Thermal decomposition may release toxic and corrosive oxides of sulphur (SO_x), if heated above 600 °C.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**

· **LD/LC50 values relevant for classification:**

Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)
Inhalative	Inhalation Toxicity	5 mg/l (rat) LC 50

- **Primary irritant effect:**
- **Skin corrosion/irritation** *No irritant effect.*
- **Serious eye damage/irritation** *Strong irritant with the danger of severe eye injury.*
- **Respiratory or skin sensitisation** *No sensitising effects known.*

12 Ecological information

- **Toxicity**

· **Aquatic toxicity:**

LC50 48 hours	>160 mg/L (dap) Water flea
LC50 96 hours	>1,000 mg/L (Not Applicable) (Semi static test/ OECD test guideline 203) Danio rerio

- **Persistence and degradability** *No further relevant information available.*

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Protea
Chemicals

A member of the Omnia Group
"more than just a chemical supplier"
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- **Behaviour 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 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|------------------------|
| <ul style="list-style-type: none"> · UN-Number · ADR, ADN, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · UN proper shipping name · ADR, ADN, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class · Subsidiary risk | Void
- |
| <ul style="list-style-type: none"> · Packing group · ADR, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: | No |
| <ul style="list-style-type: none"> · Special precautions for user · ERG No. | Not applicable.
171 |
| <ul style="list-style-type: none"> · Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| <ul style="list-style-type: none"> · UN "Model Regulation": | Void |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **GHS label elements**
The substance is classified and labelled according to the Globally Harmonised System (GHS).

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Trade name: ALUMINIUM SULPHATE

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· **Hazard pictograms**



GHS05

· **Signal word** *Danger*

· **Hazard statements**

May be harmful if swallowed.

Causes skin irritation.

Causes serious eye damage.

· **Precautionary statements**

Wear protective gloves / eye protection / face protection.

Wash thoroughly after handling.

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.

Specific treatment (see on this label).

If skin irritation occurs: Get medical advice/attention.

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** *Substance is not listed.*

· **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.

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 5: Acute toxicity – Category 5

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1