

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



**Protea
Chemicals**

A member of the Omnia Group
"more than just a chemical supplier"

Printing date 16.09.2015

Version number 1

Revision: 16.09.2015

1 Identification of the substance/mixture and of the company/undertaking

· **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:**

Protea Chemicals Wadeville

1 Berrange Road

Wadeville, Germiston

Tel: 011-821 3300

Protea Chemicals PE

127 Grahamstown Road

Deal Party, Port Elizabeth

Tel: 041-403 1000

Protea Chemicals CT

54 Killarney Avenue

Killarney Gardens, Milnerton, Cape Town

Tel: 021-550 8100

Protea Chemicals KZN

150 Quality Street,

Jacobs, Durban

Tel: 031-468 5424

· **Further information obtainable from:** Protea Chemicals

· **Emergency telephone number:**

08610 OMNIA or

08610 66642

2 Hazards identification

· **Classification of the substance or mixture**



corrosion

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/protective clothing/eye protection/face protection.

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).

Take off contaminated clothing and wash before reuse.

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.

· **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

- **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.
Avoid contact with the eyes.

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- **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:**



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/Melting range:	770 °C (Zers.)
Boiling point/Boiling range:	Undetermined.
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Product is not flammable.
- **Ignition temperature:**
- **Decomposition temperature:** Not determined.
- **Self-igniting:** Not determined.
- **Danger of explosion:** 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
- **Relative density** Not determined.
- **Vapour density** Not applicable.

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- | | |
|---|--|
| · Evaporation rate | Not applicable. |
| · Solubility in / Miscibility with water at 20 °C: | 300 g/l |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| · Dynamic: | Not applicable. |
| · Kinematic: | Not applicable. |
| · Other information | No further relevant information available. |

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:**
- **on the skin:** No irritant effect.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitisation:** No sensitising effects known.

12 Ecological information

- **Toxicity**

Aquatic toxicity:

LC50 48 hours	>160 mg/L (daphnia) 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.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

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- **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

- | | |
|---|-----------------|
| · UN-Number | Void |
| · ADR, ADN, IMDG, IATA | Void |
| · UN proper shipping name | Void |
| · ADR, ADN, IMDG, IATA | Void |
| · Transport hazard class(es) | Void |
| · ADR, ADN, IMDG, IATA | Void |
| · Class | Void |
| · Subsidiary risk | - |
| · Packing group | Void |
| · ADR, IMDG, IATA | Void |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · ERG No. | 171 |
| · Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | - |

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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· **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/protective clothing/eye protection/face protection.

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).

Take off contaminated clothing and wash before reuse.

If skin irritation occurs: Get medical advice/attention.

· **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

Acute Tox. 5: Acute toxicity, Hazard Category 5

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1