

Mountain Flocculants

MATERIAL SAFETY DATA SHEET

(according to Directive 2001/58/EC)

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

1.1 Identification of substance / preparation:

Chemical name: Polyaluminiumchloride aluminiferrous
Formula: $[AL_2(OH)_nCl_{6-n}]_m.[Fe_2(OH)_nCl_{6-n}]_m$; $n \leq 5$, $m \leq 10$

1.2 Use of the substance / preparation:

Inorganic reagent for water treatment.

1.3 Company / undertaking identification:

Manufacturer:

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Provided when purchased

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EU Agent/Representative:

Mr S Last

Tel: +44(0) 1694 731390

#### 1.4 Emergency telephone:

Provided when purchased

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### 2. COMPOSITION / INFORMATION ON INGREDIENTS:

Powder. Water, polymer, inorganic salts.

$AL_2O_3 + Fe_2O_3$   $\geq 30$  %

Cl  $25 \pm 2$  %

(CAS No. & EINECS No. – Not applicable for non hazardous product.)

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### 3. HAZARDS IDENTIFICATION:

This product is not classified as hazardous (EU Directive 88/379/EEC, 1999/45/EC)

Human Health Hazards

Acute Inhalation: May cause irritation of mucous membranes.

Skin contact: May cause mild irritation.

Eye contact: Moderate irritation.

Ingestion: Possible irritation of gastro-intestinal tract, nausea and vomiting.

Physical & Chemical Hazards: Potential violent reaction with strong oxidising agents and alkalis.

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### 4. FIRST-AID MEASURES:

Inhalation: Remove the subject from dusty environment and let him blow his nose. Take medical advice if appropriate.

Skin contact: Negligible, but wash and obtain medical advice if appropriate.



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|              |                                                                                                                                                     |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Eye contact: | Flush eyes with running water for several minutes, while keeping the eyelids wide open. Consult with an ophthalmologist in case of persistent pain. |
| Ingestion:   | Rinse mouth with fresh water, drink a lot of water. Obtain medical attention.                                                                       |

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#### 5. FIRE-FIGHTING MEASURES:

Non-combustible. The product doesn't require any special precautions. In case of fire in close proximity, all means of extinguishing media are acceptable, but should be chosen to suit surrounding conditions. Continuous heating over 150 °C may cause decomposition joined with formation of dangerous HCl.  
No special protective equipment required for fire-fighters.

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#### 6. ACCIDENTAL RELEASE MEASURES:

|                            |                                                                                                                                                                                                                                       |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions:      | Wear suitable Personal Protective Clothing; Follow the protective measures given in section 8.                                                                                                                                        |
| Environmental precautions: | Prevent discharges into the environment (surface water, soils).                                                                                                                                                                       |
| Methods for cleaning up:   | Collect the product with suitable means avoiding dust formation. Place everything into a closed, labelled container compatible with the product. For disposal methods refer to section 13. Clean area with large quantities of water. |

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#### 7. HANDLING AND STORAGE:

|               |                                                                                                                                                                                                                      |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Handling:     | Keep away from reactive products, see section 10.                                                                                                                                                                    |
| Storage:      | Keep in a dry, covered and well-ventilated store room.<br>With storage the product keeps its quality for unlimited time.<br>Keep away from food, drink, and animal feeding stuffs.<br>Keep out of reach of children. |
| Packaging:    | PE                                                                                                                                                                                                                   |
| Specific use: | Potable and industrial water conditioning, polluted effluent and waste water treatment. Mix, dose and dilute product for use at all times within the appropriate dilution                                            |

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#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

|                                  |                                                                                                                                                                                       |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Exposure limit values:           | None specific. Apply dusty environment requirements.                                                                                                                                  |
| Exposure controls:               | Ventilate premises especially during mixing avoid the generation of dust during handling.                                                                                             |
| Respiratory protection:          | Dust mask fo suitable type.                                                                                                                                                           |
| Hand protection:                 | Protective gloves (PVC or nitrile). Replace regularly.                                                                                                                                |
| Eye protection:                  | Dust proof goggles.                                                                                                                                                                   |
| Skin protection:                 | Wear overalls.                                                                                                                                                                        |
| Environmental exposure controls: | Comply with national regulations for aqueous discharges after any spillage.                                                                                                           |
| Hygeine:                         | Safety shower and eyewash fountain should be available. Wash hands and launder clothing after use. Maintain the storage and mixing area clean at all times to minimise dust creation. |



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#### 9. PHYSICAL AND CHEMICAL PROPERTIES:

General information:

Appearance: crystalline powder  
 Colour: red-brown  
 Odour: negligible

Important health, safety and environmental information:

Density: Bulk density  $580 \pm 10 \text{ kg/m}^3$ .  
 Solubility: Combine with water at any rate.  
 pH (1% solution) 3.5 – 5.0  
 Explosive properties: Not explosive.  
 Oxidising properties: No  
 Flammability: No  
 Auto-flammability: No  
 Decomposition temperature: Over  $150 \text{ }^\circ\text{C}$ .

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#### 10. STABILITY AND REACTIVITY:

Conditions to avoid: Temperature over  $150 \text{ }^\circ\text{C}$ , high humidity. At very high temperatures during fire possible generation of chlorine  
 Materials to avoid: Acids, alkalines and poisonous material because of deterioration. Dangerous in contact with  $\text{H}_2\text{SO}_4$  due to a formation of HCl.

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#### 11. TOXICOLOGICAL INFORMATION:

Toxicological data:

Acute toxicity: No  
 Irritation: Slightly (eyes, nose)  
 Sensitisation: No  
 Chronic toxicity: No

Health effect:

Inhalation: No  
 Skin contact: No  
 Eyes contact: No  
 Ingestion: No

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#### 12. ECOLOGICAL INFORMATION:

Ecotoxicity: Not ecotoxic in use, when applied at recommended dilutions and when full flocculation settlement takes place within the treatment facility as intended. Settlement of product within a watercourse (the aqueous environment) to be avoided by adequate settlement before discharge to the environment.  
 Biodegradable: No.  
 Bioaccumulation: In normal use (treated water), no potential for bioaccumulation (accumulate in biota and pass through the food chain).  
 Mobility: Low mobility due its properties, as a flocculant it settles rapidly and therefore is not likely to enter groundwater.

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#### 13. DISPOSAL CONSIDERATION:



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Any spoilt product and used packaging to be disposed of in compliance with national regulation. Duty of Care Regulations apply in the UK. In the EU if material becomes a waste, disposer to apply the relevant European Waste Catalogue Code requirements.

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#### 14. TRANSPORT INFORMATION:

Not classified as hazardous goods. Not regulated.

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#### 15. REGULATORY INFORMATION:

Hazard Symbol: Not applicable.

National Regulations

United Kingdom: COSHH Regulations apply.

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#### 16. REVISIONS:

Revision No.: Rev.1

Date: 8 December 2006