

**Material Safety Data Sheet
Aluminium Hydroxide**

In compliance with the requirements of EU Guidelines: 91/155/EEC - 2001/58/EC

Rev.: 01

Date of draft: 06/05/2003

Status date: 09/02/2009

1. MATERIAL / PREPARATION AND COMPANY IDENTIFICATION

Designation of material or preparation

Product name: Aluminium Hydroxide **SH 10 / SH 20**
Reflamal S2 / S3 / S4 / S20 / S30

Manufacturer:

Aluminium Oxid Stade GmbH
Johann-Rathje-Köser-Straße

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Supplier:

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2. COMPOSITION / DATA ON COMPONENTS

Aluminium hydroxide is produced from bauxite by hydrometallurgical extraction and is precipitated as hydragillite from the extraction liquor.

Aluminium hydroxide is not subject to labeling requirements according to relevant EU Directives.

Material	Content	CAS No	EU No	Symbol	Default Classification
Aluminium hydroxide	92 - 99	21645-51-2	244-492-7	Not applicable	Not applicable

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3. HAZARD IDENTIFICATION

Aluminium hydroxide is not hazardous to man or the environment.

4. FIRST AID MEASURES

Inhalation of dust:	Breathe fresh air. Consult physician if discomfort persists.
Contact with eyes:	Holding eyelid open, rinse affected eye under running water. If discomfort persists, consult a ophthalmologist.
Swallowing:	Not applicable.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Not subject to any restrictions.
Unsuitable extinguishing agent for safety reasons:	Not applicable.
Danger from aluminium hydroxide in case of fire:	Material does not burn.
Special protective equipment:	None.

6. ACCIDENTAL RELEASE MEASURES

Brush the powder together and return for subsequent use.
(See also Section 13, Disposal Consideration)

7. HANDLING AND STORAGE

Avoid causing dust.

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8. EXPOSURE CONTROL/PERSONAL PROTECTION

Constituents with permissible exposure limits:

Designation	CAS No	Type / Exposure limits	Test material
Aluminium hydroxide	21645-51-2	TLV 6 mg/m ³	Fine airborne dust

Personal protection:

In case of thick dust, special ventilation or the wearing of a respiratory device (P2/3) may be required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Powder, white or light grey, odourless.
Melting range:	Dehydration from 200° C, transition to Al ₂ O ₃
Boiling point:	2700° C (Al ₂ O ₃ decomposition product)
Flash point:	Not applicable
Flammability (solid, gaseous):	Not applicable
Self ignition:	Not applicable
Explosive properties:	Not applicable
Density at 20° C:	2.42 g/ml
Water solubility at 20° C:	Insoluble
Logarithm of octanol/water distribution coefficient:	Not applicable
Solubility in organic solvents:	Not applicable
Other information:	None

10. STABILITY AND REACTIVITY

Aluminium hydroxide is a chemical compound, which is soluble in alkalis and acids. At temperatures above 200° C pure aluminium hydroxide begins to decompose into aluminium oxide and water.

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11. TOXICOLOGICAL INFORMATION

Toxicological tests:

Acute toxicity:	No
Skin irritation:	No
Eye irritation:	No
Sensitisation of the skin:	No
Sub-acute to chronic toxicity:	No
Carcinogenicity:	No
Mutagenicity:	No
Toxic for reproduction:	No
Chronic health effects:	No
Industrial experience and practice:	
Observations relating to classification	None
General remarks:	None

12. ECOLOGICAL INFORMATION

Elimination (persistence and degradability): Not applicable
 Behaviour in the environment: Under normal conditions, inert.
 Eco-toxicity: None. Aluminium hydroxide is not water soluble.
 Aquatic toxicity

96h LC ₅₀ (fish):	Not applicable
48h EC ₅₀ (daphnia):	Not applicable
72h IC ₅₀ (algae):	Not applicable

Behaviour in waste water purification plant: Not applicable

Further ecological information

CSB value:	Not applicable
BSB value:	Not applicable
AOX value:	Not applicable

General notes: Aluminium is the third most common element on the earth's surface. It is present in the soil in high concentrations as aluminium compounds.

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13. DISPOSAL CONSIDERATION

Residual material:	Large amounts are recovered and recycled. Small amount is landfilled as domestic waste.
Waste code:	Not waste in the sense of the European Waste Catalogue and EU Directives (91/156/EC, 94/31/EC) /AbfG.

14. TRANSPORT INFORMATION

By land (ADR/RID/GGVS/GGVE):	Non-hazardous material
By sea (IMDG/GGVSee):	Non-hazardous material
By air (ICAO-TI and IATA-DGR):	Non-hazardous material

15. REGULATORY INFORMATION

Pre-registered under REACH, reference number 05-2114142621-60-0000

16. OTHER INFORMATION

References: Chemical, hazardous materials, recycling and reuse laws, waste ordinance, employment protection laws, the laws protecting expectant and nursing mothers as well as other relevant regulations. Kühn-Birett's instructional leaflets about hazardous materials published by ecomed-Verlag. Practical software: Hazardous Materials, WEKA-Verlag. Gregor Obereuther, New Data Sheets for the Transport of Hazardous Materials, GGVS/ADR, WEKA Fachverlag. BestbüAbfV. Handbook of Chemistry and Physics, CRC Press, 53rd edition, 1972-1973.

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The data contained in this sheet is based on the current state of our knowledge. It does not, however, represent an undertaking as to the quality of the described product in the sense of warranty obligation.