

**Material Safety Data Sheet
Aluminium Oxide**

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

Rev. : 01

Date of draft : 06/05/2003

Status date : 17/02/2009

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Designation of material or preparation

Product name: Aluminium oxide **SO143**

Manufacturer:

Aluminium Oxid Stade GmbH
Johann-Rathje-Köser-Straße
D-21683 Stade
Germany
Tel.: +49 4146/92-393
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Supplier :

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St. Peter Port
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Channel Islands
Tel. : +44 1481 740605
Fax : +44 1481 740604

2. COMPOSITION/DATA ON COMPONENTS

Aluminium oxide is produced from bauxite by hydrometallurgical extraction, precipitation as hydrogillite from the extraction liquor and thermal transition to Al₂O₃ (free of fibers).

Aluminium oxide is not subject to labelling requirements according to relevant EU Directives.

Material	Content %	CAS No	EU No	Symbol	Default Classification
Aluminium Oxide	98 - 99	1344-28-1	215-691-6	Not applicable	Not applicable

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3. HAZARD IDENTIFICATION

Aluminium oxide 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 oxide 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.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Constituents with permissible exposure limits:

Designation	CAS No	Type / Exposure limits	Test material
Aluminium oxide	1344-28-1	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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance :	Powder, white or light grey, odourless.
Melting range :	2046° C
Boiling point :	2700°C
Flash point :	Not applicable
Flammability (solid, gaseous) :	Not applicable
Self ignition :	Not applicable
Explosive properties :	Not applicable
Density at 20° C :	2.7 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 oxide is a very stable compound.

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

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12. ECOLOGICAL INFORMATION

Elimination (persistence and degradability) : Not applicable

Behaviour in the environment : Under normal conditions, inert.
Eco-toxicity : None. Aluminium oxide is not water soluble

Aquatic toxicity :

96h LCH₅₀ (fish) : Not applicable

48h EC₅₀ (daphnia) : Not applicable

72h IC₅₀ (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.

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) 2000/532/EC

14. TRANSPORT INFORMATION

By land (ADR/RID/GGVS/E) : 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 05-2114142673-51-0000.

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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. Ridder, Holzhäuser, ADR 2001, ecomed-Verlag. BestbüVAbfV. AVV.Handbook of Chemistry and Physics, CRC Press, 53rd edition, 1972 – 1973. Umweltbundesamt, Catalogue of Substances Hazardous to Water. GESTIS.

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