

**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: 09/02/2009

## 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

21683 Stade

GERMANY

Tel.: +49 4146 92 393

Fax: +49 4146 92 398

#### Supplier:

Dadco (Suisse) S.A.

Avenue d'Ouchy, 61

Case postale 36

1000 Lausanne 6

SWITZERLAND

Tel.: +41 21 613 13 70

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## 2. COMPOSITION/DATA ON COMPONENTS

Aluminium oxide is produced from bauxite by hydrometallurgical extraction, precipitation as hydragillite from the extraction liquor and thermal transition to Al<sub>2</sub>O<sub>3</sub> (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 an 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.

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**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 <sup>3</sup>	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:	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.

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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 oxide is not water soluble

Aquatic toxicity:	
96h LCH <sub>50</sub> (fish):	Not applicable
48h EC <sub>50</sub> (daphnia):	Not applicable
72h IC <sub>50</sub> (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) 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

**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, 53<sup>rd</sup> edition, 1972 – 1973. Umweltbundesamt, Catalogue of Substances Hazardous to Water. GESTIS.

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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.**