

SAFETY DATA SHEET

according to EC- directive 91/155/EC



Product Trade Name: Alumina (Metroblast)

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Version 3

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

Product Identifier
Product Name Metroblast - White Fused Alumina (EK and EK micro)

Details of the supplier of the safety data sheet
Supplier Metrodent Limited
Lowergate Works, Lowergate
Paddock, Huddersfield
United Kingdom
+44 1484 461616
sales@metrodent.com

Emergency contacts
Office Hours Metrodent Limited
+44 1484 461616

Recommended intended purpose(s)
Dental

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	NK (Mean values)	NK micro (Mean values)	EK (Mean values)	EK micro (Mean values)	EKR (Mean values)
Alumina (Al ₂ O ₃)	95.65%	95.77%	99.73%	99.69%	99.30%
Titanium dioxide (TiO ₂)	2.42%	2.79%	-	-	-

Chemical characterisation Alumina (Al₂O₃)

EINECS 215-691-6
CAS No. 1344-28-1
(1) REACH Registration No. (1) 01-2119529248-35-0010
(2) CLP Notification No. (2) 02-2119879066-20-0000
Classification according to CLP -
Regulation (EC) No. 1272/2008 -
Hazard classes/hazard categories -
Hazard statements -

Titanium dioxide (TiO₂)

EINECS 236-675-5
CAS No. 13463-67-7
(1) REACH Registration No. -
(2) CLP Notification No. (2) 02-2119879066-20-0000
Classification according to CLP -
Regulation (EC) No. 1272/2008 -
Hazard classes/hazard categories -
Hazard statements -

Substances listed on the so-called 'Candidate List of Substances of Very High Concern (SVHC) for authorisation' of the European Chemicals Agency (ECHA) are not intentional ingredients of this product. It is therefore not to be expected that those substances are present in quantities of > 0.1% in the product.

Hazardous substances No dangerous ingredients

Substances with prescribed EC exposure limits Does not contain substance with EC exposure limits

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3. HAZARDS IDENTIFICATION

Classification	Not applicable
Label elements	Does not require labelling under the CLP Regulation (EC) No. 1272/2008. But please take note of this product information. No risk of silicosis during application.
Safety instructions	Possible dust exposure due to fine dust particles.
Other hazards	Not known

4. FIRST AID MEASURES

Please also take note of sections 8 and 16 of this product information.

Description of first aid measures

General information	Consult a doctor in case of health disorders.
After inhalation	Provide the affected person with fresh air. Consult a doctor in case of irritation of the respiratory tract.
After eye contact	Remove contact lenses and rinse the eyes with open eyelids for 10 minutes under running water.
If necessary, consult an ophthalmologist.	
After skin contact	Wash with water and rinse.
After swallowing	Rinse mouth and drink plenty of water. Do not induce vomiting. If you feel unwell, seek medical advice.
Most important symptoms and effects, both acute and delayed	Not known
Indication of any immediate medical attention and special treatment needed	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Product does not burn. Match extinguishing measures to ambient situation.

Unsuitable extinguishing media

Not known

Special hazards arising from the product

Not known

Advice for fire fighters

Match the fire fighting measures to the environmental conditions.

Additional information

Not known

6. Accidental release measures

Avoid dust formation

Environmental protection measures

Not known

Methods and materials for containment and cleaning up

Pick up mechanically and dispose of properly.

Reference to other sections

Refer to protective measures in sections 7 and 8.

Additional information

Not known

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7. Handling and storage

Precautions for safe handling

Information on safe handling Avoid dust formation

Information on fire and explosion protection

No special fire protection measures are necessary.

Additional information

Not known

Conditions for safe storage, including any incompatibilities

Information on storage conditions Always store product in dry conditions.

Requirements for storage rooms and containers

No special requirements needed.

Storage class VCI

LGK 13 (non-combustible solids)

Specific end uses

Alumina is used to manufacture or to use as blasting or abrasive medium.

8. Exposure controls/personal protection

Occupational exposure limit values in the workplace and/or biological limit values

Occupational Exposure Limits (OEL) in Germany for dusts

Inhalable fraction (E) 10 mg/m₃

Respirable fraction (A) 1.25 mg/m³

With exceeding factor 2 each, ref. TRGS 900

Community exposure limits

Country specific. Please inquire in individual cases.

Limitation and monitoring of exposure

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over the use of personal protective equipment. Provide adequate ventilation. This can be achieved by local suction or general air extraction.

Alumina is not a hazardous substance, thus only the general dust limit value applies.

Suitable assessment methods to verify the effectiveness of the protective measures taken include metrological and non-metrological determination methods as described in the Technical Rules for Hazardous Substances (TRGS) 4021 and BS EN 14042 "Workplace areas, Guidelines for the implementation and application of processes for assessment of exposure to chemical and biological agents".

Personal protective equipment

The use of personal protective equipment is dependent on the concentrations and quality of hazardous substances in their execution in specific workplaces.

Respiratory protection

Normally, no personal respiratory protective equipment is necessary. In case of insufficient ventilation or exceeded workplace limits, a protective breathing mask should be worn (FFP filtering half mask depending on the existing concentration).

Hand protection

Glove material: Leather

Eye protection Tight-sealing protective eyewear (dust-protection goggles) in accordance with EN 166:2001.

Body protection With normal use, no body protection by half or full body coverall and boots is required.

Information on industrial hygiene

Minimum standards for protective measures when handling working materials are listed in TRGS 500.

Do not eat, drink, smoke or take drugs while using this product.

Avoid contact with skin, eyes and clothing.

Remove soiled or soaked clothing immediately.

Wash hands before breaks and at the end of work.

Protect skin by using skin creams.

Environmental protection measures

See sections 6 and 7; no further action required.

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9. Physical and chemical properties

Appearance	
Appearance	angular
Physical state	solid
Colour	white
Odour	odourless
Safety data	
Explosion hazard	The product itself is not explosive, however, formation of explosive air/dust mixtures is possible.
Lower explosion limit	not known
Upper explosion limit	not known
Vapour pressure	not relevant
Specific gravity	approx. 3.9 to 4.1 g/cm ³
Flow time	not relevant
Water solubility	insoluble in water
pH value	not applicable
Boiling point/range	not applicable
Flash point	not determined as product is not flammable
Melting point	approx. 2000°C
Ignition temperature	not determined as product is not flammable
The information about the explosion limits refers to Alumina. Please refer to the technical data sheet for other physical and chemical data.	

10. Stability and reactivity

Reactivity	Alumina is non-reactive and does not change with proper handling and storage.
Chemical stability	Alumina is chemically stable and does not change with proper handling and storage.
Possibility of hazardous reactions	No hazardous reactions known.
Conditions to avoid	No decomposition if used according to specifications.
Incompatible materials	No hazardous reactions known.
Hazardous decomposition products	No known hazardous decomposition products.

11. Toxicological information

According to current IFA reports the product contains no silicosis-inducing, toxic and carcinogenic components. The indications given in section 8 of the product information must be observed.

Acute toxicity	No data on the product available
Irritation	No data on the product available
Corrosivity	No data on the product available.
Sensitisation	No data on the product available
Repeated dose toxicity	No known toxicity of Alumina.
CMR effects (carcinogenic, mutagenic and toxic to reproduction)	No carcinogenic effect according to IFA reports.
Summarised evaluation of the CMR properties	No known CMR properties.
Practical experience (relevant for classification and other observations)	No data on the product available.
Carcinogenicity	No known carcinogenicity of Alumina.
Mutagenicity	No data on the product available
Reproductive toxicity	No data on the product available
Other information	Not known

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12. Ecological information

Toxicity	No known effects
Ecotoxicity	For Alumina no environmental problems are to be expected when handled and used properly.
Fish toxicity	Harmful effects for aquatic organisms are not expected.
Aquatic invertebrates	Harmful effects for aquatic organisms are not expected.
Water plants	Harmful effects for aquatic organisms are not expected.
Persistence and degradability	Based on current experience, this product is inert and not degradable
Bioaccumulation potential	No data available. Accumulation in biological materials is rather unlikely, as it is inert and insoluble.
Mobility in soil	Potential not known
Results of PBT and vPvB assessment	Not relevant. The substances in this product do not meet the criteria for classification as PBT or vPvB
Other harmful effects	Not known

13. Disposal considerations

Waste treatment methods	
Product	Alumina, if recycling is not possible; waste must be disposed of in compliance with national and local regulations. Confirm the exact waste code with the disposer.
Waste Code according to Europe Waste Catalogue (EWC)	12 01 17 waste blasting material other than those mentioned in 12 01 16
Packaging	National and local regulations must be followed.
Contaminated packaging	Packaging with Alumina residues can be recycled.
Cleaned packaging	Packaging can be reused after being cleaned or recycled.

14. Transport information

Alumina is not dangerous goods.

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the product	
EU regulations	Not known
National regulations	
Water hazard class	Not hazardous to water, classification according to VwVwS, Annex 4.
Technical instruction on air quality (TA-Luft)	Substance not mentioned by name.
Hazardous Incident Ordinance (12. BImSchV [German Federal Immission Control Regulation])	Substance not mentioned by name.
Solvents Ordinance (31. BImSchV [German Federal Immission Control Regulation])	Substances not mentioned by name.
Chemical Prohibition Ordinance	Substances not mentioned by name.
Relevant Technical Rules for Hazardous Substances	Contains no hazardous substances.
Employment Restrictions	Not known
Miscellaneous	Alumina is not subject to the VOC Regulation.
International regulations	All Alumina ingredients are listed with TSCA, AICS, DSL, (NDSL), NEPA and PICCS and registered with MITI/ENCS under 1-23.
Chemical safety assessment	Not relevant

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16. Other information

Further applicable EC directives Not known
Restrictions on use recommended by the manufacturer For industrial application only.

Other information

The product information in this documentation is correct to the best of our knowledge at the time of printing. The information is intended to provide you with advice on the safe handling of the product mentioned in this product information for storage, processing, transport and disposal. The information cannot be applied to other products. If the product mentioned in this documentation is in any way tampered with i.e. mixed with other materials, processed or undergoes processing, the information as supplied in this document no longer applies to the new product unless expressly stated otherwise.

Changes since the last version

Literature and data sources

Regulations

REACH Regulation (EC) No. 1907/2006

CLP Regulation (EC) No. 1272/2008

Hazardous Substances Ordinance (GefStoffV)

Commission Decision 2000/532/EC (AVV)

Transport Regulations according to ADR, RID and IATA

TRGS 900

VOC Regulation (ChemVOFarbV)

Hazard statements, referred to in section 2 and 3

According to Regulation (EC) No. 1272/2008:

None

The above information is based on the present state of knowledge; however, this shall not constitute a guarantee of product properties and establishes no contractual legal rights. Existing laws and regulations must be strictly followed by the recipient or user of the blasting medium on their own responsibility.

Legend

ADR	European agreement concerning the international carriage of dangerous goods by road
AW/EWC	European Waste Catalogue
BImSchV	Regulation on the Implementation of the (German) Federal Immission Control Ordinance
CAS	Chemical Abstracts Service
EC	European Community
EN	European Standard
IATA-DGR	International Air Transport Association-Dangerous Goods
PBT	Persistent, bio accumulative, toxic
RID	Regulations concerning the International Carriage of Dangerous Goods
TRGS	Technical Rules for Hazardous Substances
TSCA	Toxic Substances Control Act
VOC	Volatile Organic Compounds (VOCs)
vPvB	Very persistent and very bio accumulative
VwVwS	Administrative Regulation on Substance Hazardous to Water