Voluntary product information for blasting abrasives based on the format of the safety data sheet of the REACH Regulation (EC) No. 1907/2006

1. Identification of the product and the company/undertaking

1.1 Product identifier
White Fused Alumina (EK and EK micro), Brown Fused Alumina (NK and NK micro)

1.2 Relevant identified uses of the product and uses advised against
No information available

Uses of the product
Mineral blasting abrasive for industrial use

1.3 Details of the supplier of the voluntary product information

Manufacturer / supplier
Kuhmichel Abrasiv GmbH
Am Rosenbaum 22
40882 Ratingen, Deutschland

Competent person
Kerstin Knein

Phone / E-Mail
+49 2102 93979-27 / kerstin.knein@kuhmichel.com

1.4 Emergency phone number
Phone +49 2102 93979-99

2. Hazards identification

2.1 Classification of the substance or mixture
Not applicable

2.2 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.

2.3 Other hazards
Not known

3. Composition/information on ingredients

3.2 Mixture
It is electro corundum in a crystalline microstructure.

Ingredients	NK (Mean values)	NK micro (Mean values)	EK (Mean values)	EK micro (Mean values)
Alumina (Al_2O_3)	95.65 %	95.77 %	99.73 %	99.69 %
Titanium dioxide (TiO_2)	2.42 %	2.79 %	-/-	-/-

Chemical characterisation	EINECS	CAS No.	(1) REACH Registration No. (2) CLP Notification No.	Classification according to CLP Regulation (EC) No. 1272/2008	
				Hazard classes / hazard categories	Hazard statements
Alumina (Al_2O_3)	215-691-6	1344-28-1	(1) 01-2119529248-35-0010 (2) 02-2119709295-38-0000	-/-	-/-
Titanium dioxide (TiO_2)	236-675-5	13463-67-7	(2) 02-2119879066-28-0000	-/-	-/-

Substances listed on the so-called 'Candidate List of **S**ubstances of **V**ery **H**igh **C**oncern (**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 substances with EC exposure limits

4. First aid measures

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

4.1 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.

4.2 Most important symptoms and effects, both acute and delayed

Not known

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically

5. Firefighting measures

5.1 Extinguishing media

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

Unsuitable extinguishing media
Not known

5.2 Special hazards arising from the product

Not known

5.3 Advice for fire fighters

Match the firefighting measures to the environmental conditions.

Additional information
Not known

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation

6.2 Environmental protection measures

Not known

6.3 Methods and materials for containment and cleaning up

Pick up mechanically and dispose of properly.

6.4 Reference to other sections

Refer to protective measures in sections 7 and 8.

Additional information
Not known

7. Handling and storage

7.1 Precautions for safe handling

For safety reasons, it is recommended to use a protective sieve during filling.

Information on safe handling
Avoid dust formation

Information on fire and explosion protection
No special fire protection measures are necessary.

Additional information
Not known

7.2 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)

7.3 Specific end uses
Mineral blasting abrasive for industrial use

8. Exposure controls/personal protection

8.1 Control parameters

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

Product is present as α-Aluminiumoxid (α-Al_2O_3).

Dust limits	CAS	MAK value mg/m³		Spzbg
		inhalable fractionl (E)[1] mg/m³	respirable fraction (A)[1] mg/m³	
Specific dust limit	1302-74-5	-	1,2[2]	II (8)
General dust limit	-	4	0,3	-

[1] If no value is given, the general dust limit value with exceedance factor 2 applies.
[2] Specific dust limit multiplied by material density

Community exposure limits
Country specific. Please inquire in individual cases.

8.2 Exposure controls

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) 402 and BS EN 14042.

Personal protective equipment
The use of personal protective equipment is dependent on the concentrations and quantity 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) like NIOSH (US) or EN 166 (EC).

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 end of work.
Protect skin by using skin creams.

Environmental protection measures
See sections 6 and 7; no further action is required.

9. Physical and chemical characteristics

9.1 Information on basic physical and chemical properties

Physical state	solid
Colour	white / brown
Odour	odourless
Melting point / freezing point	approx. 2 000 °C / not usefully applicable
Boiling point or initial boiling point and boiling range	not usefully applicable
Flammability	not determined as product is not flammable
Lower and upper explosion limit	not known. The product itself is not explosive; however, formation of explosive air/dust mixtures is possible.
Flash point	not determined as product is not flammable
Auto-ignition temperature	not determined as product is not flammable
Decomposition temperature	not determined, as product does not decompose
pH	not usefully applicable
Kinematic viscosity	not usefully applicable
Solubility	insoluble in water
Partition coefficient n-octanol/water (log value)	not usefully applicable
Vapour pressure	not relevant
Density and/or relative density	approx. 3.9 – 4.1 g/cm³
Relative vapour density	not relevant
Particle characteristics	not relevant

9.2 Other information
None

10. Stability and reactivity

10.1 Reactivity
Alumina is non-reactive and does not change with proper handling and storage.

10.2 Chemical stability
Alumina is chemically stable and does not change with proper handling and storage.

10.3 Possibility of hazardous reactions
No hazardous reactions known.

10.4 Conditions to avoid
No decomposition if used according to specifications.

10.5 Incompatible materials
No hazardous reactions known.

10.6 Hazardous decomposition products
No known hazardous decomposition products.

11. Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
Does not require labelling under the CLP Regulation (EC) No. 1272/2008.
According to current DGUV 500 investigation report the product contains no silicosis-inducing, toxic and carcinogenic components.
The indications given in section 8 of this product information must be observed.

Acute toxicity
No data on the product available

Skin corrosion/irritation
No data on the product available

Serious eye damage/irritation
No data on the product available

Respiratory or skin sensitisation
No data on the product available

Germ cell mutagenicity
No data on the product available

Carcinogenicity
No known carcinogenicity of Alumina.

Reproductive toxicity
No data on the product available

STOT-single exposure
No data on the product available

STOT-repeated exposure
No data on the product available

Aspiration hazard
No data on the product available

11.2 Information on other hazards
None

12. Ecological information

12.1 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.

12.2 Persistence and degradability
Based on current experience, this product is inert and not degradable.

12.3 Bioaccumulative potential
No data available. Accumulation in biological materials is rather unlikely, as it is inert and insoluble.

12.4 Mobility in soil
Potential not known

12.5 Results of PBT and vPvB assessment
Not relevant. The substances in this product do not meet the criteria for classification as PBT or vPvB.

12.6 Endocrine disrupting properties
The product does not contain substances in quantities of 0.1% or more that have endocrine disrupting properties according to REACH Article 57 (f).

12.7 Other adverse effects
Not known

13. Disposal considerations

13.1 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 European Waste Catalogue (EWC)
12 01 17 waste blasting material other than those mentioned in 12 01 16

Recommendation
Contact Kuhmichel Abrasiv GmbH for the recycling of used Alumina.

13.2 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

14.1 UN number or ID number
No dangerous goods

14.2 UN proper shipping name
ADR/RID
No dangerous goods

IMDG-Code / ICAO-TI / IATA-DGR
No dangerous goods

14.3 Transport hazard class(es)
ADR / RID / IMDG-Code / GGVSee / ICAO-TI / IATA-DGR
No dangerous goods

14.4 Packing group
No dangerous goods

14.5 Environmental hazards
Label environmentally hazardous substances
ADR / RID / IMDG-Code: no
ICAO-TI / IATA-DGR: no

14.6 Special precautions for user
see Section 6 to 8

14.7 Transport in bulk according to IMO instruments
Not applicable

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the product

EU regulations
Alumina is not subject to the Regulation 722/2012/EU (ADI-Free).

National regulations

Water hazard class
Not hazardous to water; classification according to AwSV.

Technical instruction on air quality (TA-Luft)
Substances not mentioned by name.

Hazardous Incident Ordinance (12. BImSchV [German Federal Immission Control Regulation])
Substances not mentioned by name.

Solvents Ordinance (31. BImSchV [German Federal Immission Control Regulation])
Substances not mentioned by name.

Chemicals 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, KECL, ENCS, PICCS, IECS, NZIoC, TCSCA and KKDIK.

15.2 Chemical safety assessment
Not determined

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
2023-01-27 ECJ Judgment on TiO_2, Transport, Adjustments according to Regulation (EC) 2020/878, Revision of MAK values

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 (ChemVOCFarbV)

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
AVV/EWC	European Waste Catalogue
AwSV	Administrative Regulation on Substances Hazardous to Water
BImSchV	Regulation on the Implementation of the (German) Federal Immission Control Ordinance
CAS	Chemical Abstracts Service
DGUV	German statutory accident insurance
EC	European Community
EN	European Standard
GGVSee	Dangerous Goods Ordinance Sea
IATA-DGR	International Air Transport Association-Dangerous Goods Regulations
IBC-Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization-Technical Instructions
IMDG-Code	International Maritime Code for Dangerous Goods
IMO	International Maritime Organization
MAK	Maximum workplace concentration
PBT	persistent, bioaccumulative, toxic
RID	Regulations concerning the International Carriage of Dangerous Goods
Spzbg	Peak Limitation Category (Exceedance Factor)
TRGS	Technical Rules for Hazardous Substances
UN	United Nations
US	United States
VOC	Volatile Organic Compounds (VOCs)
vPvB	very persistent and very bioaccumulative
TSCA	Toxic Substances Control Act in USA
AICS	Australian Inventory of Chemical Substances
DSL/NDSL	Canada Domestic Substances List / Non-domestic Substances List
KECL	Korea Existing Chemicals List
ENCS	Japanese Existing and New Chemical Substances
PICCS	Philippine Inventory of Chemicals and Chemical Substances
IECSC	Existing chemical inventory in China
NZIoC	New Zealand Inventory of Chemicals
TCSCA	Toxic Chemical Substance Control Act in Taiwan
KKDIK	Turkish Regulation on Chemicals Registration, Evaluation, Authorisation and Restriction