

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/s

White Fused Alumina (EK and EK micro), Pink Fused Alumina (EKR), Brown Fused Alumina (NK and NK micro)

1.2 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

Street address / PO Box

Am Rosenbaum 22

Country code / postal code / city

40882 Ratingen, Germany

Phone / fax / email

+49 2102 93979-27 / +49 2102 93979-40 / kerstin.knein@kuhmichel.com

1.4 Emergency phone number

Phone +49 2102 93979-99 (during normal office hours)

2. Hazards identification

2.1 Classification

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

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	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 ₂ O 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	-/-	-/-

Classification of titanium dioxide as carcinogenic 2: Corundum grains are not affected, as they contain titanium(oxide), but bounded in crystal phases and only present in traces in form of binary TiO₂ phases (Rutile, Anattas, Brookite).

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 $\geq 0.1\%$ 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

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

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

8. Limitation and monitoring of exposure/personal protective equipment

8.1 Control parameters

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.

8.2 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) 402 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 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) 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 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

Appearance

Appearance	angular
Physical state	solid
Colour	white / pink / brown
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. 2 000 °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.

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 toxicological effects

According to current IFA reports 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

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

12. Environmental 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 Bioaccumulation 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 Other harmful effects

Not known

13. Disposal considerations

13.1 Waste treatment methods

13.1 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

Alumina is no dangerous good.

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 VwVwS, Annex 4.

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/NDL, KECL, ENCS, PICCS, IECS, NZIoC, TCSCA and KKDIK.

15.2 Chemical safety assessment

Not relevant

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

2017-07-10 Revision

2018-07-17 Advice Protective sieve

2018-08-01 Regulation 722/2012/EU

2019-08-06 Supplement International regulations

2020-03-31 Note on classification of titanium dioxide for Alumina

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
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 Regulations
PBT	persistent, bioaccumulative, toxic
RID	Regulations concerning the International Carriage of Dangerous Goods
TRGS	Technical Rules for Hazardous Substances
VOC	Volatile Organic Compounds (VOCs)
vPvB	very persistent and very bioaccumulative
VwVwS	Administrative Regulation on Substances Hazardous to Water
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

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