Date of issue: 27.01.2023

Aluminium Oxide

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Commercial product name: Aluminium Oxide

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:	SILADENT Dr. Böhme & Schöps GmbH	Ultimate Dental Supply
Street / mailbox:	Im Klei 26	660A South Rd
Country code. / postal code / city:	D - 38644 Goslar	MOORABBIN VIC 3189
Phone:	Tel.: +49 (0) 53 21 / 37 79 – 0	03 9532 1799
Fax:	Fax: +49 (0) 53 21 / 38 96 32	info@ultimatedental.com.au
E-mail / Website:	info@siladent.de - www.siladent.de	
Further information obtainable from:	SILADENT Dr. Böhme & Schöps GmbH	

1.4 Emergency telephone number

SILADENT Dr. Böhme & Schöps GmbH +49 (0)5321/3779-0 M-F 8am-4pm

Australian Emergency number

13 11 26 Poisons 24 hours / 7 days

SECTION 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.

SECTION 3: Composition/information on ingredients

3.2 Mixture: It is electro corundum in a crystalline microstructure.

Ingredients	EK (Mean values)
Aluminium oxide (Al_2O_3)	99. 73%
Titanium dioxide (TiO_2)	-/-

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
Aluminium oxide (Al2O3)	215-691-6	1344-28-1	1) 01-2119529248 -35-0010 (2) 02 -2119709295-38-0000	-/-	-/-
Titanium dioxide (TiO2)					

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 prescribe EC exposure limits:	Does not contain substances with EC exposure limits.

SECTION 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 in 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 an special treatment needed:**	Treat symptomatically.

SECTION 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.

SECTION 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 section 7 and 8.
	Additional information:	Not known.

SECTION 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 information.

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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

Product is present as a-Aumhumoxid (a-Al,O,).

Dust limits	CAS	MAK value mg/m³		Spzbg
		Inhalable fraction (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	-

Community exposure limits Country specific. Pleas 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 extraction.
Aluminium oxide 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 goggleslike 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.

SECTION 9: Physical and chemical properties

9.1 Information on basics 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 relevant
Vapour pressure:	not relevant
Density and/or relative density:	approx. 3.9 - 4.1 g/cm^3
Relative vapour density:	not relevant
Particle characteristics:	not relevant

9.2 Other information: None.

SECTION 10: Stability and reactivity

10.1 Reactivity: Aluminium oxide is non-reactive and does not chance with proper handling and storage.

10.2 Chemical stability: Aluminium oxide 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.

SECTION 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

SECTION 12: Ecological information

12.1	**Toxicity:**	No known effects.
	Ecotoxicity:	For Aluminium oxide 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	**Endocrine disrupting properties:**	The product does not contain substances in quantities of 0.1% or more !hat have endocrine disrupting properties according to REACH Article 57 (f).

12.7	**Other harmful effects:**	Not known.

SECTION 13: Disposal considerations

13.1	**Waste treatment methods:**	
	Product:	Aluminium oxide. 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.
13.2	**Packaging:**	National and local regulations must be followed.
	Contaminates packaging:	Packaging with Aluminium oxide residues can be recycled.
	Cleaned packaging:	Packaging can be reused after being cleaned or recycled.

SECTION 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

SECTION 15: Regulatory information

15.1	**Safety, health and environmental regulations / legislation specific for the product.**	
	EU regulations:	Aluminium oxide 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]):	Substance 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:	Aluminium oxide is not subject to the VOC Regulation.
International regulations:	All Aluminium oxide ingredients are listed with TSCA, AICS, DS/NDSL, KECL, ENCS, PICCS, IECS, NZIoC, TCSA and KKDIK.

15.2 Chemical safety assessment: Not determined.

SECTION 16: Other information

Further applicable EC directives:	Not known.
Restrictions on use recommended by the manufacturer:	For industrial applicate 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 anyway 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)
Comrnission Decisiov 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 dangerous goods by road
AVV/EWC	European Waste Catalogue
AwSV	Administrative Regulation on Substances Harzardous 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 Ordilance 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 l 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
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 Contorl Act in Taiwan
KKDIK	Turkish Regulation on Chemical Registration, Evaluation, Authorisation and Restriction