



Safety Data Sheet

Basically White Fused Alumina/Aluminium Oxide is non-hazardous substance. A MSDS is not mandatory required. This is a data sheet provided on voluntary basis, made according to Regulation (EC) No. 1907/2006 (REACH)

Identification of the substance: White Fused Alumina (Al₂O₃)

Edition: 8

Latest review: 2020.09.01

Changes: header; point 8.1; point 15.1

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Product name:	White Fused Alumina (Al ₂ O ₃)
Trade name:	White Fused Alumina, Electrocorundum, Corundum, Aluminium Oxide, EKP, EKF, EKR, Korvisit.
REACH-Registration No.:	01-2119529248-35-0023
CAS name:	Aluminium oxide
CAS number:	1344-28-1
EU name:	Aluminium oxide
EU number:	215-691-6
IUPAC name:	oxo(oxoalumanyloxy)alumane
Substance type:	mono constituent; inorganic substance

1.2 Relevant identified uses of the substance or mixture and uses advised against: abrasives, refractory and ceramics applications, bonded and coated abrasives, filter and catalyst carriers, glass, fillers, water treatment, industrial application, lubricant, greases, chemical reagents, feedstock

Counterproposal use: none.

1.3 Details of the supplier of the safety data sheet:

Manufacturer:	MOTIM Electrocorundum Ltd. 9200 Mosonmagyaróvár Timföldgyári str. 9-13. HUNGARY
E-mail (competent):	schummel.denes@motim.hu
Company telephone:	+36 96 574-100
Company telefax:	+36 96 574-280
Company e-mail:	corundum@motim.hu
Company homepage:	www.motim.hu

1.4 Emergency telephone number:

+36 80 20 11 99 (green number)
National Emergency contact:
Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ)
1096 Budapest, Nagyváradi Tér 2
Fax: +36 476 1138
E-mail: ettsz@okk.antsz.hu

2. Hazards identification

Emergency Overview

Critical hazards to human and environment None



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This product is not considered to be a hazardous substance, as it does not fulfill any classification criteria of hazardous properties specified in Regulation (EC) No.1272/2008 EC on classification, labelling and packaging of substances and mixtures. The safety data sheet has been handed over on request, as powder may be generated while the substance is used, in case of which occupational exposure limits of the Union have been defined.

2.1 Classification of the substance or mixture:

GHS Classification Not classified. No H-phrases.
CLP Classification (Regulation (EC) No 1272/2008) Not classified as hazardous.
EC Classification (Annex I. Of Directive 67/548/EEC) Not classified. No R-phrases.

2.2 Label Elements

Symbol: None
Signal word: None
Labelling according to Regulation (EC) No 1272/2008: None
Labelling according to Directive 67/548/EEC: None

Precautionary statements: P 261: Avoid breathing dust.
P280: Wear eye protection.
P285: In case of inadequate ventilation wear respiratory protection.
P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P302+352: IF ON SKIN: Wash with soap and water.

2.3 Other hazards:

None

3. Composition/information on ingredients

3.1 Substances:

CAS-No.: 1344-28-1
EINECS No.: 215-691-6
REACH Registration No.: 01-2119529248-35-0023

Purity: 95-100%(w/w) typical: ca. 99.7%

CAS #	EC #	Component	Concentration %	Classification	R- phrase
1344-28-1	215-691-6	Aluminium oxide (non-fibrous)	100	--- ---	--- ---

Hazard impurities: No hazardous impurities.



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4. First aid measures

4.1 Description of first aid measures:

Inhalation: Move to fresh air. Consult physician if necessary
Skin contact: Mechanical dry removal
Eye contact: In case the material gets into the eye rinse with full water needed keeping the lids open and the eyeball moving. Seek medical advice if mechanical irritation persists.
Ingestion: Rinse mouth and give plenty of water to drink. Seek medical advice.

4.2 **Most important symptoms and effects, both acute and delayed:** None

4.3 **Indication of any immediate medical attention and special treatment needed:** None

5. Firefighting measures

5.1 **Extinguishing media:** The substance is not inflammable and non-explosive. Fire hazard classification: E. Fire extinguishing method of surrounding areas must be considered. Unsafe extinguishing media: none.

5.2 **Special hazards arising from the substance or mixture:** None

5.3 **Advice for firefighters:** None

6. Accidental release measures

6.1 **Personal precautions, protective equipment and emergency procedures:** Avoid dust formation. In case of exposure to high level airborne dust wear a personal respirator in compliance with national legislation. See section 8.

6.2 **Environmental precautions:** Avoid dispersal of spilled material and runoff. Avoid creating dusty conditions and prevent wind dispersal. Collect material for recycling if possible.

6.3 **Methods and material for containment and cleaning up:** The material can be taken up mechanically and disposed of observing the local regulations.

6.4 **Reference to other sections:** See section 2.2 Label elements; 7. Handling and storage; 8. Exposure controls/personal protection; 13. Disposal considerations

7. Handling and storage

General advice: Handle in accordance with good industrial hygiene and safety practice. Wear suitable personal protective clothing and equipment.



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7.1 Precautions for safe handling:

Advice on safe handling: Avoid dust formation. No special handling advice required.

Precautions against fire and explosion: No possible danger of fire and dust explosion.

7.2 Conditions for safe storage, including any incompatibilities:

Condition of storage rooms and tanks: No any special precautions required.

Further information of storage: Store in dry area

7.3 Specific end use(s):

Abrasives, refractory and ceramics applications, bonded and coated abrasives, filter and catalyst carriers, glass, fillers, water treatment, industrial application, lubricant, greases, chemical reagents, feedstock

8. Exposure controls/personal protection

8.1 Control parameters:

Exposure limit values for White Fused Alumina: Not applicable

Components with specific control parameters as limit values

Occupational exposure limits (air): generally same as for nuisance dust

Hungary

5*/2** mg/m³ (*inhalable dust; ** respirable dust)

5/2020 (II.6.) ITM regulation for inert dusts

Germany

10*/3** mg/m³ (*inhalable dust; ** respirable dust)

Great Britain

10*/4** mg/m³ (*inhalable dust; ** respirable dust)

United States

OSHA 15 mg/m³ (total dust); 5 mg/m³ TWA (respirable fraction)

Some additional EU countries

10 mg/m³ (include national OEL if this exists)

8.2 Exposure controls:

Occupational Exposure Controls: Avoid dust formation. Appropriate local exhaust ventilation recommended.



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Personal Protection Equipment

Respiratory protection:

In case of insufficient ventilation and exposure to high levels of airborne dust, wear suitable respiratory equipment.

Recommended filter type: Filter P2 (acc. To DIN3181)

Hand protection:

Wear suitable gloves

Glove material: Textile

Mechanical Harm Category 2,

Protection: Protection level: EN 388 3132

Use: Sieving process, packaging

Glove material: Leather

Mechanical Harm Category 2,

Protection: Protection level: EN 388 3123, 3133

Use: Fusing process, grinding, sieving

Eye protection:

Wear safety glasses with side shields (frame goggles).

Skin Protection:

No special protective equipment required.

Hygiene measures:

Do not eat, drink or smoke when handling. Wash hands after handling and before eating.

Environmental exposure controls: No special exposure controls required.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Physical state: solid powder or grains

Colour: white

Odour: odorless

9.2 Other information:

Grain size: 0.01 – 100mm

Odour threshold: -

Initial boiling point and boiling range: 2980 °C at 1013 hPa

Evaporation rate: not applicable

Upper/lower flammability or explosive limits: not applicable

Vapour pressure: 1 hPa at 2158 °C

Vapour density: not applicable

Solubility(ies): in water: very low (0.00002g/L at 20 °C)

Auto-ignition temperature: not applicable

Decomposition temperature: not applicable

Viscosity: not applicable

pH-value: not relevant

Melting point: approx. 2080 °C

Boiling point: not relevant



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Flash point:	not relevant
Density:	3.99 g/cm ³ (20°C)
Solubility in water:	insoluble
Flammability:	not relevant
Explosive properties:	not relevant
Oxidizing properties:	no
Thermal decomposition:	not applicable
n-Octanol water coefficient:	not applicable
Other physical-chemical properties:	not relevant

10. Stability and reactivity

General information: The material is stable under normal conditions of use, storage and handling/transport.

10.1	Reactivity:	Not reactive.
10.2	Chemical stability:	The substance is stable under normal conditions.
10.3	Possibility of hazardous reactions:	No hazardous reactions known.
10.4	Conditions to avoid:	None
10.5	Incompatible materials:	None
10.6	Hazardous decomposition products:	No hazardous decomposition products known.

11. Toxicological information

11.1 **Information on toxicological effects:** Oral uptake < 0.1%, nearly insoluble in lung fluids, most absorbed aluminium oxide is rapidly excreted through urine, main deposit in body is in bone structure.

Acute effects (acute toxicity, irritation and corrosivity):	No acute effects	
Acute toxicity:	LD50 (oral):	> 2000 mg/kg bwt (rats)
	LD50 (dermal):	No effect
	LC50 (inhalation):	> 2,3 mg/l(rats)
Specific symptoms in animal tests: After swallowing:	None	
	After skin contact:	None
	After inhalation:	None
Irritation and Corrosive effects:	Irritant effects on skin:	No effects
	Irritant effect on eyes:	No effects



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Sensitisation: After skin contact: None
After inhalation: None

Toxicity after repeated intake (sub acute, sub chronic, chronic):

Sub acute oral Toxicity: None, Calculated DNEL 6,2 mg/kg bwt/day

Sub acute inhalation Toxicity: None see occupational exposure limits, calculated.
DNEL:15,6 mg/m³ respirable

Assessment:

CMR-effects (carcinogenic, mutagenic and reproductive effects)

Carcinogenicity: None

Mutagenicity: None

Reproductive toxicity: None

Assessment of CMR properties: Not classified for CMR

Product components not listed under IARC/NTP/ACGIH (ingredient carcinogenicity)

Practical experience:

Observations relevant for classification: None

Other observations: None

12. Ecological information

12.1 Ecotoxicity:

Product/ingredient name	Test	Result	Species	Exposure
Aluminium oxide	Fish – OECD TG 203	>100 mg/l	Salmo trutta	pH 8
Aluminium oxide	Daphnia –OECD TG 202	>100 mg/l	Daphnia Magna	pH 8
Aluminium oxide	Algae – OECD TG 201	>100 mg/l	Selenastrum Capricornutum	pH 8

12.2 Toxicity: Study scientifically unjustified. The substance is highly insoluble in water. The dissolved material ions from the test substance do not exceed the concentration of metal ions in natural surface waters. As such, it is clear that the Aluminium Oxide/White Fused Alumina mineral is not entering the environment in quality or concentration or under conditions that have or may have an immediate or long-term harmful effect on the environment.

12.3 Persistence and degradability:

Persistence: No relevant for inorganic substance

Biological degradability: Not degradable

12.4 Bioaccumulative potential: Not applicable.



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|-------------|--|---|
| 12.5 | Long term ecotoxicity: | Not classified for ecotoxicity |
| 12.6 | Mobility in soil: | Not mobile under normal environmental conditions may be leached from the ground at low pH (< 5.5) or high pH (> 8.5). |
| 12.7 | Results of PBT and vPvB assessment: | Not PBT or vPvB substance. |
| 12.8 | Other adverse effects: | None |

Final assessment: No acute or chronic classification is appropriate for Al metal massive based on non toxic results below the Ecotoxicity Reference Value (ERV) of tests with aluminium metal, oxide and hydroxide at loadings of 100 mg/L at pH 8-8.5 (maximum solubility of Al expected). All aluminium in soil or the aquatic environment comes from natural sources. Local sources has an insignificant contribution and impact on environment

13. Disposal considerations

- 13.1.1 Waste treatment methods:** Reuse or recycle when possible. The material can be stored with domestic waste in accordance with the authoritative local regulations. The used packaging should be emptied entirely. Recycling of the used packaging is recommended observing the local regulations.

14. Transport information

- | | | |
|-------------|------------------------------------|-------------------------|
| 14.1 | UN number: | Non hazardous material. |
| 14.2 | UN proper shipping name: | |
| | GGVS/ADR classification: | Non hazardous material. |
| | GGVE/RID classification: | Non hazardous material. |
| | Inland waterways: | |
| | GGVBisch/ADNR classification: | Non hazardous material. |
| | Maritime transport: | |
| | GGVSee/IMDG classification: | Non hazardous material. |
| | Air transport: | |
| | ICAO-TI/IATA classification: | Non hazardous material. |
| 14.3 | Transport hazard class(es): | Non hazardous material. |
| 14.4 | Packing group: | Non hazardous material. |
| 14.5 | Environmental hazards: | Non hazardous material. |



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- 14.6 Special precautions for user:** Non hazardous material.
- 14.7 Transport in bulk according to Annex II. of MARPOL73/78 and the IBC Code:** Non hazardous material.

15. Regulatory information

15.1 Safety, health and environmental regulations/legislations specific for the substance or mixture

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

REGULATION (EC) No1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation No 1907/2006

5/2020 ITM REGULATION

EU Regulations

Labelling

Regulation (EC) No. 1272/2008

This product is not classified and labelled in accordance within EC directives

CAS-No.:	1344-28-1
EINECS No.:	215-691-6
Hazard symbols	None
Signal word	No signal word
Hazard statements	None
Precautionary statements	None

Hazard determining components for labelling	None
Authorisation, TITEL VII	Not applicable
Restriction TITEL VII	Not applicable
VOC (1993/13/CE)	0%

Water pollution class	Not classified
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- 15.2 Chemical safety assessment:** Chemical Safety Report (CSR) of Aluminium oxide



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16. Other information

Changes from previous versions: header; 8.1 point: 5/2020 ITM Regulation; 15.1 point: Commission Regulation (EU) 2020/878

R-phrases: None

Further information: The current labour hygiene and authoritative regulations should be observed. The presented information is based on the available literature and the experiences of the manufacturer. The MSDS includes information exclusively in regards of the safety aspects of the relevant material.

Annex - Exposure Scenarios

As a result of the hazard assessment and PBT/vPvB assessment it is found that SUBSTANCE Aluminium Oxide/White Fused Alumina (CAS# 1344-28-1) does not meet the criteria for classification as hazardous (according the Directives 67/548/EEC and 1272/2008/EC) nor is it considered to be a PBT/vBvB. An exposure assessment and the subsequent stop of risk characterization is not required.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.



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Abbreviations and acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety and Health Administration (US)
ADR:	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID:	Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International Transport of Dangerous Goods by Rail)
IMDG:	International Maritime Code for Dangerous Goods
IATA:	International Air Transport Association
IATA-DGR:	Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO:	International Civil Aviation Organization
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS:	Globally Harmonized System of Classification and Labelling of Chemicals
EINECS:	European Inventory of Existing Commercial Chemical Substances
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
Bwt	bodyweight
PNEC	Potential No Effect Concentration
DNEL	Derived No Effect Level
DOC	Dissolved Organic Compounds

Mosonmagyaróvár, 2020.09.01

P.H

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Zoltán Tanyi
Managing Director