



PRODUCT SAFETY INFORMATION
BAIKALOX – MEDIALOX – MALAKOFF ALUMINAS

This document is provided for prevention information purposes only.
The product mentioned above does not strictly meet the criteria listed in the current legislation (REACH - 1907/2006/EC) because the producer is not legally required to provide a safety data sheet for non classified products

1- IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

1.1 – Product identifier

Name of the substance : ALUMINIUM OXIDE, ALUMINA

Chemical name & formula : Aluminium oxide - Al₂O₃

REACH Registration No. : 01-2119529248-35-0009
(*alumina powder registration number*)

1.2 – Use(s) : Technical ceramics manufacturing
Synthetic gemstones manufacturing
Various uses as functional additive or specialty abrasive

1.3 – Manufacturer / supplier

1.3.1 – Name of manufacturer / supplier : BAIKOWSKI
Company adress : B.P. 501
74339 LA BALME DE SILLINGY CEDEX
FRANCE

Phone : +33 (0)4.50.22.69.02

Fax : +33 (0)4.50.22.28.92

1.3.2 – E-mail : sds@baikowskichimie.com

1.3.3 – Info in case of emergency
National emergency call nr : France: ORFILA: +33 (0)1 45 42 59 59

2- HAZARDS IDENTIFICATION

2.1 – Classification : Not classified according to 1272/2008 (CLP) & 67/548/CEE (DSD) regulations' criteria.

2.2 – Informations concerning particular hazards for human & environment:

Does not cause any health hazard under normal conditions of use and as delivered.

High dust concentration in the working environment may cause mechanical irritation of the eyes, skin and respiratory tract.

In its crystalline form, the product can have sharp edges that may cause cuts to the hands during handling (cf. section 8)

3- COMPOSITION / INFORMATION ON INGREDIENTS

3.1 – Chemical characterization : Aluminium oxide content > 98 wt%

3.2 – Ingredients :

Component	EC #	CAS #	Concentration	Classification	R- phrase
Aluminium oxide	215-691-6	1344-28-1 (<i>alumina powder</i>)	> 98 %	<i>none</i>	<i>None</i>

3.3 – Additional info



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Usual packaging : Usually supplied to customers in bulk or big bags

4- FIRST-AID MEASURES

- 4.1 – General information** : First aid personnel: pay attention to self-protection !
- Inhalation : Remove to ventilated area.
Keep calm.
In case of ongoing discomfort consult a physician.
- Skin contact : In case of large exposure wash with soap and water.
In case of cut, disinfect.
- Eye contact : Flush thoroughly with water, keeping eyes wide open for 15 minutes.
In case of persistent irritation or injury by shrapnels, consult a physician.
- Swallowing : Wash mouth with water.
- 4.2 – Notes to physician** : *None*

5- FIRE-FIGHTING MEASURES

Not flammable

- 5.1 – Suitable extinguishing agents** : Use appropriate extinguishing agents for surrounding materials.
- 5.2 – For safety reasons unsuitable extinguishing agents:** None.
- 5.3 – Special hazards caused by the substance, its products of combustion or resulting gases :** None.
- 5.4 – Protective equipment** : Fire fighters should wear approved personal equipment for the surrounding fired material.
- 5.5 – Additional hints** : *None*

6- ACCIDENTAL RELEASE MEASURES

- 6.1 – Personal safety precautions** : See protection measures listed in section 8.
- 6.2 – Environmental protection measures :**
Avoid dispersal of spilled material and runoff.
Avoid creating dusty conditions and prevent wind dispersal.
Collect material for recycling if possible.
- 6.3 – Measures for cleaning** : Use vacuum cleaner if possible.
- 6.4 – Additional hints** : Cf. section 13.

7- HANDLING AND STORAGE

**PRODUCT SAFETY INFORMATION****BAIKALOX – MEDIALOX – MALAKOFF ALUMINAS****7.1 – Handling**

- : Ensure good ventilation / local exhaust at the workplace in the case of operations generating dust.
- Avoid creating dusty conditions.
- Avoid inhalation and skin and eye contact
- Wear appropriate personal protective equipment.
- Do not add wet alumina to electrolysis cells

7.2 – Storage :

Requirements to be met by storerooms and receptacles: Store in dry area.

Additional hints

- : In the crystalline form, as sapphire is a brittle material, it is recommended to avoid shock & sudden temperature changes.

8- EXPOSURE CONTROLS / PERSONAL PROTECTION**8.1 – Exposure limits**

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

France

- : VME 10 mg/m³ (total dust)

Allemagne

- : 10 mg/m³ (inhalable dust) ;
3 mg/m³ (respirable dust)

Great-Britain

- : 10 mg/m³ (poussière inhalable) ;
4 mg/m³ (poussière respirable)

USA

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

Some additional EU countries

- : 10 mg/m³ (includes national OEL if any)

8.2 – Exposure control

- : Ensure good ventilation / local exhaust at the workplace in the case of operations generating dust.
- Avoid work practises which generate dust.
- Avoid inhalation and particles entering the eyes

8.3 – Personal protective equipment:

Respiratory equipment

- : Not required under recommended conditions of use.
- In case dust is generated, use personal protective equipment, dust filter P2 or if fine particles P3.

Eye protection

- : Use protective goggles while handling material.

Skin protection

- : Use protective gloves while handling material & wear appropriate work clothes.

8.4 – Environmental exposure control:

- Avoid creating dusty conditions.
- Prevent wind dispersal and dust emissions.

9- PHYSICAL AND CHEMICAL PROPERTIES**9.1 – General information**

Physical state

- : Solid powder or beads or crystalline solid

Colour

- : White to translucent white

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Odour	: Odourless
pH value	: Not relevant
Melting point / Melting range	: Approx. 2030 °C
Boiling point / Boiling range	: Not relevant
Flash point	: Not relevant
Flammability	: Not relevant
Explosive properties	: Not relevant

Density at 20°C	: 3,99 g/cm ³
Solubility in water (20°C)	: Insoluble
Other physical-chemical properties	: Crystalline solid hardness : Mohs 9

9.2 – Important information on health and safety and environmental protection:

Safety related basic data, methods and comments.

10- STABILITY AND REACTIVITY

Stable under normal conditions of use, storage, and transport.

9.1 – Conditions to be avoided : None.

9.2 – Materials to be avoided : None.

9.3 – Dangerous decomposition products: None.

11- TOXICOLOGICAL INFORMATION**Alumina powder:****11.1 – Toxicokinetics, metabolism and distribution:**

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.

11.2 – Acute effects (acute toxicity, irritation and corrosivity):

No acute effects.

11.2.1 – Acute toxicity:

LD50 (oral)	: > 5000 mg/kg bwt (rats)
LD50 (dermal)	: No effect.
LC50 (inhalation)	: > 5 mg/l (rats)

11.2.2 – Specific symptoms in animal tests:

After swallowing	: None.
After skin contact	: None.
After inhalation	: None.

11.2.3 – Irritation and Corrosive effects:

Irritant effects on skin	: None.
Irritant effect on eyes	: No effects apart from mechanical irritation.

11.3 – Sensitisation:

After skin contact	: None.
After inhalation	: None.
Remarks	:

11.4 – Toxicity after repeated intake (sub acute, sub chronic, chronic)



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

Sub acute inhalation toxicity : None, cf. occupational exposure limits.
Calculated DNEL: 15,6 mg/m³ respirable.

Evaluation :

11.5 – CMR effects (carcinogenic, mutagenic and reproductive effects)

Carcinogenicity : None.
Mutagenicity : None.
Reproductive toxicity : None.
L'évaluation des propriétés CMR : Not classified for CMR.

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

11.6 – Practical experience:

Observations relevant for classification : None.
Other observations : None.

12- ECOLOGICAL INFORMATION**12.1 – Ecotoxicity:**

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

12.2 – Mobility : Not mobile under normal environmental conditions
May be leached from the ground at low pH (<5,5) or high pH (> 8,5).

12.3 – Persistence and degradability:

12.3.1 – Persistence : Not relevant for metals.

12.3.2 – Biological degradability : Not degradable.

12.4 – Bio accumulative potential : Not bio accumulative.

12.5 – Long term ecotoxicity : Not classified for ecotoxicity.

12.6 – Results of PBT assessment : Not relevant for metals.

12.7 – Other adverse effects : None.

12.8 – 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



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13- DISPOSAL CONSIDERATIONS**13.1 – Disposal / Waste (Product):**

Dispose of wastes and residues in accordance with local waste regulations.

Wastes are not classified as hazardous according decree No. 2002-540 du 18 avril 2002 regarding hazardous wastes classification.

13.2 – Packaging : Not relevant..

14- TRANSPORT INFORMATION

Not regulated.

15- REGULATORY INFORMATION

No classification or special regulations. Follow general rules for handling, transport and waste management.

Chemical Safety Assessment carried out.

The substance is not classified as dangerous, there is no exposure scenario

16- OTHER INFORMATION

The modifications are pointed out with a bold vertical line on the text left margin

In dealing with chemicals the national laws and regulation must be observed and applied.

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.

Recommended limitations of use by manufacturer:

For industrial use and as component in consumer products.

Abbreviations and acronyms:

ACGIH	American Conference of Governmental Industrial Hygienist
CAS	Chemical Abstracts Service
CIRC	Centre International de Recherche sur le Cancer
CL50	Concentration létale, 50%
DL50	Dose Létale, 50%
DNEL	Derived No Effect Level (niveau dérivé sans effet)
EINECS	Européan Inventory of Existing Commercial Chemical Substances
NTP	National Toxicology Program
OHSA	Occupational Safety and Health Administration (USA)
PBT	Persistante, Bioaccumulable et Toxique
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (Enregistrement, évaluation, autorisation et restriction des produits chimiques)
TWA	Time weighted average (VME aux USA)
VME	Valeur Moyenne d'Exposition