

Aluminum oxide (cas 1344-28-1) MSDS

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name Aluminum oxide CAS-No. 1344-28-1

1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses: Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances Synonyms Alumina Formula Al203

Molecular Weight 101,96 g/mol

4. FIRST AID MEASURES

4.1 Description of first aid measures

- * If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration
- * In case of skin contact Wash off with soap and plenty of water.
- * In case of eye contact Flush eyes with water as a precaution
- * If swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed Cough, chest pain, Difficulty in breathing, Gastrointestinal disturbance

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

5.2 Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.3 Special hazards arising from the substance or mixture

Aluminum oxide

5.4 Advice for firefighters

Republic of Ireland (Head Office)

| Phone: | 0505 45125 | Fax: | 0505 45345 |
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| Web: | www.glassparts.ie | Email: | sales@glassparts.ie |
| Address: | Lisbunny Industrial Esta | te, Lisbun | ny, Nenagh, Co. Tipperary. |

United Kingdom (Sales Office)

Phone:0800 975 3436Fax:00 353 505 45345Web:www.glassparts.co.ukEmail:sales@glassparts.co.ukAddress:Unit 6, The Glenmore Centre, Cable St, Southampton SO145AE





Wear self contained breathing apparatus for fire fighting if necessary.

6. Further information

Do not use halocarbon extinguishers. The product itself does not burn. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Avoid breathing vapors, mist or gas.
6.2 Environmental precautions
No special environmental precautions required.
6.3 Methods and materials for containment and cleaning up
Sweep up and shovel. Keep in suitable, closed containers for disposal.
6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. strongly hygroscopic

7.3 Specific end uses no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls General industrial hygiene practice. Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government. Standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Immersion protection Material: Nitrile rubber

F V

Minimum layer thickness: 0,11 mm

Break through time: > 480 min

Material tested: Dermatril? (Anonymous Z677272, Size M) Splash protection

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

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Break through time: > 30 min

Material tested:Dermatril? (Anonymous Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties
- a) Appearance Form: powder
- b) Odour no data available
- c) Threshold Odour no data available d) pH 9,4 10,1 at 20 $^\circ \mathrm{C}$
- e) Melting point/freezing point Melting point/range: 2.040 °C lit. f) Initial boiling point
- and boiling range 2.980 °C
- g) Flash point no data available
- h) Evaporation rate no data available
- i) Flammability (solid, gas) no data available
- j) Upper/lower flammability or explosive limits no data available
- k) Vapour pressure no data available)
- L) Vapour density1 hPa at 2.158 °C no data available
- m) Relative density 4,000 g/cm3
- n) Water solubility insoluble
- o) Partition coefficient: noctanol/water no data available
- p) Autoignition temperature no data available
- q) Decomposition temperature no data available
- r) Viscosity no data available
- s) Explosive properties no data available t) Oxidizing properties no data available
- 9.2 Other safety information no data available

10. STABILITY AND REACTIVITY

- 10.1 Reactivity no data available
- 10.2 Chemical stability no data available
- 10.3 Possibility of hazardous reactions no data available
- 10.4 Conditions to avoid Exposure to moisture.
- 10.5 Incompatible materials

Strong acids, Strong bases, chlorine trifluoride, ethylene oxide, Halogenated hydrocarbon, Oxygen difluoride, Sodium nitrate, Vinyl compounds

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10.6 Hazardous decomposition products Other decomposition products – no data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

- Acute toxicity no data available
- Skin corrosion/irritation no data available
- Serious eye damage/eye irritation no data available
- Respiratory or skin sensitization no data available
- Germ cell mutagenicity no data available

Carcinogenicity This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity no data available

Specific target organ toxicity – single exposure no data available

Specific target organ toxicity - repeated exposure no data available

Aspiration hazard no data available

Potential health effects Inhalation Ingestion Skin Eyes May be harmful, if inhaled. May cause respiratory tract irritation. May be harmful if swallowed. May be harmful if absorbed through skin. May cause skin irritation. May cause eye irritation. Signs and Symptoms of Exposure Cough, chest pain, Difficulty in breathing, Gastrointestinal disturbance Additional Information RTECS: BD1200000

12. ECOLOGICALINFORMATION

12.1 Toxicity no data available
12.2 Persistence and degradability no data available
12.3 Bio-accumulative potential no data available
12.4 Mobility in soil no data available
12.5 Results of PBT and vPvB assessment no data available
12.6 Other adverse effects no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging
Dispose of as unused product.

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14. TRANSPORT INFORMATION

14.1 UN number ADR/RID: –

14.2 UN proper shipping name ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

14.3 Transport hazard class(es) -ADR/RID: -

14.4 Packaging group - ADR/RID: -

14.5 Environmental hazards - ADR/RID: no IMDG: - IMDG: - IMDG: - IMDG Marine pollutant: no IATA: - IATA: - IATA: - IATA: no

14.6 Special precautions for user no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture no data available 15.2 Chemical Safety Assessment no data available

15.2 Chemical Safety Assessment no data available

16. OTHER INFORMATION Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information this document is based on the resent state of our knowledge and is applicable to the product with regard to appropriate safety precautions.

It does not represent any guarantee of the properties of the product. guidechem shall not be held liable for any damage resulting from handling or from contact with the above product.

See reverse side of invoice or packing slip for additional terms and conditions of sale.

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