
Material Safety Data Sheet

Product Name	Aluminium oxide
---------------------	------------------------

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification:**Product Description:** Aluminium oxide**Synonyms:** Alumina**CAS-No:** 1344-28-1**EC-No.:** 215-691-6**Molecular Formula:** Al₂O₃

REACH Registration No: A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

1.2. Relevant identified uses of the substance or mixture and uses advised against:**Recommended Use:** Laboratory chemicals**1.3. Details of the supplier of the safety data sheet:**

- **Company** **Finar Limited**
184-186/P, Chacharwadi Vasna,
Sarkhej-Bavla Highway,
Ta.: Sanand, Dist.: Ahmedabad,
Email: info@finarchemicals.com
Web: www.finarchemicals.com
- **E-Mail Address** safety@finarchemicals.com; info@finarchemicals.com

1.4. Emergency Telephone Number:

- For Emergency contact on: +91 - 2717 - 616 717
- Registered office No: +91 - 79 - 40040085

Material Safety Data Sheet

Product Name	Aluminium oxide
---------------------	------------------------

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2. Label Elements:

Labeling according Regulation (EC) No 1272/2008

Precautionary statements

Prevention

P260 Do not breathe dust.

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3. Other Hazards:

None Known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances: Aluminium oxide

3.2. Mixtures:

Component	CAS-No	EC-No.	Weight %
Aluminium oxide	1344-28-1	215-691-6	>95%

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

- **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

- **If inhaled**

Remove to fresh air. Get medical attention immediately if symptoms occur.

- **In case of skin contact**

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Material Safety Data Sheet

Product Name	Aluminium oxide
---------------------	------------------------

- **In case of eye contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Get medical attention.
 - **If swallowed**
Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
- 4.2. Most important symptoms and effects, both acute and delayed:**
We have no description of any symptoms of toxicity.
- 4.3. Indication of any immediate medical attention and special treatment needed:**
No Data Available

SECTION 5: FIREFIGHTING MEASURES

- 5.1. Extinguishing media:**
Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media: For this substance/mixture no limitations of extinguishing agents are given.
- 5.2. Special hazards arising from the substance or mixture:**
Aluminium oxide
Not combustible.
Ambient fire may liberate hazardous vapours.
- 5.3. Advice for firefighters:**
In the event of fire, wear self-contained breathing apparatus.
- 5.4 Further Information:**
Do not use halocarbon extinguishers. None

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions, protective equipment and emergency procedures:**
Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.
- 6.2. Environmental precautions:**
No special precautionary measures necessary.

Material Safety Data Sheet

Product Name	Aluminium oxide
---------------------	------------------------

6.3. Methods and material for containment and cleaning up:

Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly.
Clean up affected area. Avoid generation of dusts.

6.4. Reference to other sections:

For disposal see Sections 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling:

Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

7.2. Conditions for safe storage, including any incompatibilities:

Store under an inert atmosphere. Keep container tightly closed in a dry and well-ventilated place.
Protect from moisture.

7.3. Specific end use(s):

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Contains no substances with occupational exposure limit values.

8.2. Exposure Controls:

- Appropriate Engineering Controls:**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.
See section 7.1.

- Personal Protective Equipment:**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye & Face Protection-

Safety Goggles

Material Safety Data Sheet

Product Name	Aluminium oxide
---------------------	------------------------

Respiratory Protection-

Required when dusts are generated.

Recommended Filter type: Filter P 1 (acc. to DIN 3181) for solid particles of inert substances

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental Exposure Controls-

Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties:**

- **Physical State:** Powder Solid
- **Appearance:** White
- **Odor:** Odorless
- **pH:** No data available
- **Melting Point:** No data available
- **Ignition Temperature:** No data available
- **Vapor Pressure:** at 20 °C Not applicable
- **Vapor Density:** No data available
- **Volatility:** No data available
- **Bulk Density:** No data available
- **Odor Threshold:** No data available
- **Viscosity, dynamic:** No data available
- **Water/Oil Dist. Co eff.:** No data available
- **Ionicity (in Water):** No data available
- **Partition Coefficient n-octanol/water:** No data available
- **Relative Density:** No data available
- **Boiling Point/Range:** No data available
- **Decomposition Temperature:** No data available
- **Flash Point:** No data available
- **Density:** 3.94 g/cm³ at 20 °C
- **Molecular Weight:** 101.96 g/mol

Material Safety Data Sheet

Product Name	Aluminium oxide
---------------------	------------------------

- **Solubility:** at 20 °C insoluble

9.2. Other information:**Molecular Formula:** Al₂O₃**SECTION 10: STABILITY AND REACTIVITY****10.1. Reactivity:**

See section 10.3

10.2. Chemical stability:

The product is chemically stable under standard ambient conditions (room temperature) .

10.3. Possibility of hazardous reactions:

Exothermic reaction with: halogen-halogen compounds, Ethylene oxide, Fluorine, Hydrogen halides, vinyl acetate

Risk of explosion with: nitrates, halogen oxides

10.4. Conditions to avoid:

Temperatures above 200°C. Incompatible products. Exposure to moist air or water.

10.5. Incompatible materials:

Strong acids, Strong bases, Peroxides, halocarbons

10.6. Hazardous decomposition products:

Fumes of aluminium or aluminium oxide

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects:****Acute Oral toxicity**

LD50 Oral - Rat - male and female - > 10.000 mg/kg

(OECD Test Guideline 401)

Acute inhalation toxicity

LC50 Inhalation - Rat - male and female - 4 h - > 2,3 mg/l

(OECD Test Guideline 403)

Acute dermal toxicity

No data available

Skin corrosion/irritation

Skin - Rabbit

Material Safety Data Sheet

Product Name	Aluminium oxide
---------------------	------------------------

Result: No skin irritation - 24 h
(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation
(OECD Test Guideline 405)

Respiratory or skin sensitization

Draize Test - Guinea pig

Result: Does not cause skin sensitization.

- Mouse

Result: Does not cause respiratory sensitization.

Germ cell mutagenicity

Ames test

Bacillus subtilis

Result: negative
(IUCLID)

Carcinogenicity

IARC: No ingredient 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

11.2 Additional Information:

RTECS: BD1200000

Cough, chest pain, Difficulty in breathing, Gastrointestinal disturbance

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Liver - Irregularities - Based on Human Evidence

Material Safety Data Sheet

Product Name	Aluminium oxide
---------------------	-----------------

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

No data available

12.2 Persistence and degradability:

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulate potential:

No data available

12.4 Mobility in soil:

No data available

12.5 Results of PBT and vPvB assessment:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No ecological problems are to be expected when the product is handled and used with due care and attention.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Waste material must be disposed of in accordance with the national and local regulations.

Leave chemicals in original containers. No mixing with other waste.

Handle uncleaned containers like the product itself.

SECTION 14: Transport information

	Land transport (ADR/RID)	Air transport (IATA)	Sea transport (IMDG)
14.1 UN number	Not classified as dangerous in the meaning of transport regulations.		
14.2 Proper shipping name	Not classified as dangerous in the meaning of transport regulations.		

Material Safety Data Sheet

Product Name	Aluminium oxide
---------------------	------------------------

14.3 Class	Not classified as dangerous in the meaning of transport regulations.
14.4 Packing group	Not classified as dangerous in the meaning of transport regulations.
14.5 Environmentally hazardous	Not classified as dangerous in the meaning of transport regulations.
14.6 Special precautions for user	Not classified as dangerous in the meaning of transport regulations.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	
No Data Available	

SECTION 15: Regulatory information

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

National legislation

Storage class 10-13

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Training advice

Provide adequate information, instruction and training for operators.

References: Not available

Created: 10/11/2020

Disclaimer:

The information above is believed to be accurate and represents the best information currently available

Material Safety Data Sheet

Product Name	Aluminium oxide
---------------------	------------------------

to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Finar Limited be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Finar Limited has been advised of the possibility of such damages.