

Aluminium Oxide Powder**1. IDENTIFICATION OF SUBSTANCES / MIXTURE AND OF THE COMPANY / UNDERTAKING****Product Identifiers**

Product Name: **Aluminium Oxide Powder**
Alternative names: Alumina powder
CAS number: 1344-28-1
EC number: 215-691-6
Product code: OCON-007 to OCON-022, OCON 030

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Abrasive lapping or polishing powder.
Uses advised against: This product is to be used only for the purpose stated above.

Details of the supplier of the safety data sheet

Manufacturer: Logitech Ltd
Erskine Ferry Road
Old Kilpatrick
Glasgow
G60 5EU
Scotland, UK

Telephone +44 (0) 1389 875444
E-mail coshh.info@logitech.uk.com

Emergency telephone number

+44 (0) 1389 875444 (09:00 – 17:00 Monday to Friday)

2. HAZARDS IDENTIFICATION**Classification of the substance or mixture**

This material is a substance

Classification according to Regulation (EC) 1272/2008 (EU 'CLP' regulation) as amended:

Not classified as hazardous

Classification according to CHIP and EU Directives 67/548/EEC or 1999/45/EC

Not classified as dangerous

Label elements**Labelling elements according to Regulation (EC) 1272/2008 (EU 'CLP' regulation)**

No labelling required under these regulations

Labelling elements according to CHIP and EU Directives 67/548/EEC or 1999/45/EC

No labelling required under these regulations

Supplemental Labeling: Prolonged exposure to elevated noise levels during operations may affect hearing. A greater hazard, in most cases, is the exposure to the dust/fumes from the material or paint/coatings being processed. Most of the dust generated during abrasive processing is from the base material or coatings and the potential hazard from this exposure must be evaluated. This dust may present a fire or dust explosion hazard and may present a serious health hazard.

Other hazards

None identified.

3. COMPOSITION / INFORMATION ON INGREDIENTS

This material is a substance.

There are no hazardous substances present at or above threshold limits:

Component	CAS No./EINECS No.	Amount	EU/GHS Classification (1272/2008)
Aluminium Oxide	1344-28-1/215-691-6 Reach Registration Number 01-2119529248-35-0063	60-100%	Not dangerous/hazardous
<i>Classification according to CHIP and EU Directives 67/548/EEC or 1999/45/EC:</i> Not classified as dangerous			
<i>Classification according to Regulation (EC) 1272/2008 (EU 'CLP' regulation) as amended:</i> Not classified as dangerous			

4. FIRST AID MEASURES

First Aid

Eyes: Remove contact lenses if present and easy to do. Flush eyes thoroughly with large amounts of water, holding eyelids open. If irritation persists, seek medical attention.

Skin: Wash skin with soap and water. If irritation or other symptoms develop, seek medical attention.

Ingestion: Do not induce vomiting. Rinse mouth with water. Seek medical attention if large amount is swallowed or if you feel unwell.

Inhalation: Move person to fresh air. If breathing is difficult, have qualified personnel administer oxygen. Seek medical attention if irritation or other symptoms persist.

See Section 11 for more detailed information on health effects.

Most Important symptoms and effects, both acute and delayed: Dust may cause eye and respiratory irritation. Prolonged inhalation of high concentration of dust may cause adverse effects on the lungs. Exposure to dust generated from processing the base material or coatings may present additional health hazards.

Indication of any immediate medical attention and special treatment needed: Immediate medical attention should not be required.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Use any media that is suitable for the surrounding fire.

Special Hazards Arising from the Substance or Mixture: This product is not flammable or combustible; however, consideration must be given to the potential fire/explosion hazards from the base material being processed. Many materials create flammable/explosive dusts or turnings when machined or ground.

Advice for Fire-Fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires involving chemicals.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear appropriate respirator and protective clothing as needed to avoid eye contact and inhalation of dust (may cause irritation by mechanical action)

Environmental precautions

Avoid contamination to water supplies and environmental releases. Report spills as required to the authorities.

Methods and material for containment and cleaning up

Carefully collect dry material, avoiding the creation of airborne dust. Place in a suitable container for disposal.

Reference to any other sections

See section 13 for disposal information and section 8 for protective equipment.

7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid breathing dust. Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wear suitable gloves, eye protection and appropriate protective clothing according to the operation. Wash thoroughly after handling. Consider potential exposure to components of the materials or coatings being processed. Refer to OSHA's substance specific standards for additional work practice requirements where applicable.

Conditions for safe storage, including any incompatibilities

No special requirements

Specific end use(s)

Industrial uses: Abrasive

Professional uses: None identified

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Chemical Name	US OEL	EU IOEL	UK OEL	German OEL	China OEL	Biological Limit Value
Aluminium Oxide	5 mg/m ³ TWA (respirable), 15 mg/m ³ TWA (total dust) OSHA PEL None Established ACGIH TLV	None Established	4 mg/m ³ TEA (respirable dust) 10 mg/m ³ TWA (inhalable dust)	1.5 mg/m ³ TWA (respirable), 4 mg/m ³ TWA (inhalable)	4 mg/m ³ TWA	None established

Derived No Effect Level (DNEL)

Long term Oral Toxicity – 6.2 mg/kg

Long term Inhalation Toxicity – 15.6mg/m³

Predicted No Effect Concentration (PNEC)

No information available

DNEL (Derived No-Effect Level): A DNEL is the level of exposure to the substance below which no adverse effects are expected to occur. It is therefore the level of exposure to the substance above which humans should not be exposed. DNEL is a derived level of exposure because it is normally calculated on the basis of available dose descriptors from animal studies such as No Observed Adverse Effect Levels (NOAELs) or benchmark doses (BMDs). This value is derived under EU REACH when a chemical safety assessment is performed as part of registration.

PNEC (Predicted No-Effect Concentration): Concentration of the substance below which adverse effects in the environmental sphere of concern are not expected to occur. This value is derived under EU REACH when a chemical safety assessment is performed as part of registration.

Exposure controls

Recommended Monitoring Procedures: None identified.

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Personal Protective Measurers

Respiratory Protection: Not necessary unless workplace concentrations of hazardous constituents exceed the exposure limits. If the exposure levels are excessive and irritation or other symptoms are experienced, an approved respirator should be worn. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134 and ANSI Z88.2 or other applicable regulations and standards and good Industrial Hygiene practice.

Eye Protection: Use safety glasses with side shields or goggles.

Skin Protection: Protective gloves recommended to avoid skin abrasion when handling. Wear protective clothing as required to avoid skin contact when handling.

Other protection: Hearing protection recommended if operation is noisy

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemicals properties

Appearance:	White solid (powder or crystals)
Odour:	None
Odour threshold:	not applicable
pH:	not applicable
Melting point:	2050 °C
Boiling point:	2977 °C
Flash point:	not applicable – non flammable
Evaporation rate	not applicable
Flammability	not applicable
Upper/lower explosive limits	not applicable – non flammable / non explosive
Vapour pressure	information not available
Vapour density	information not available
Density	information not available
Solubility in water:	Insoluble in water.
Solubility in other	
Ingredients:	information not available
Partition coefficient	
Octanol/water:	information not available
Auto-ignition temperature	not applicable – non flammable / non explosive
Decomposition temperature	not applicable
Viscosity	information not available
Explosion properties:	not applicable – non flammable / non explosive
Oxidising properties:	Not oxidising.

Other information

No additional data available

10. STABILITY AND REACTIVITY

Reactivity

Not reactive to materials commonly used in the transportation, handling and storage.

Chemical stability

Stable at room temperature.

Possibility of hazardous reactions

A slight rise in temperature may result from contact with water

Conditions to avoid

None identified

Incompatible materials

None identified

Hazardous decomposition products

None identified

11. TOXICOLOGICAL INFORMATION**Information on toxicological effects**

Inhalation: Breathing dust may cause irritation to the nose, throat and upper respiratory tract.

Skin Contact: May cause abrasive skin irritation.

Eye Contact: May cause abrasive irritation and injury.

Ingestion: Not toxic. Swallowing may cause gastrointestinal disturbances.

Chronic Health Effects: Prolonged inhalation of respirable dust may cause adverse lung effects.

Acute Toxicity Values:

Aluminum Oxide: Oral rat LD50 >10000 mg/kg; LC50 Inhalation rat >2.3 mg/L/4 hr

Skin corrosion/irritation: Aluminum oxide was not a skin irritant in animal studies. Skin contact may result in abrasive injury.

Eye damage/ irritation: Aluminum oxide was not an eye irritant in animal studies. Eye contact may result in abrasive irritation and injury.

Respiratory Irritation: No chemical irritation expected.

Skin Sensitization: Not expected to cause skin sensitization based on human experience.

Respiratory Sensitization: Not expected to be a respiratory sensitizer based on human experience.

Germ Cell Mutagenicity: None of the components have been shown to cause mutagenic activity.

Carcinogenicity: Aluminum oxide is not listed as a carcinogen or potential carcinogen by ACGIH, IARC, NTP, OSHA or the EU CLP.

Developmental / Reproductive Toxicity: No specific data is available; however, this product is not expected to present a risk of adverse reproductive or developmental toxicity.

Specific Target Organ Toxicity (Single Exposure): No specific data is available.

Specific Target Organ Toxicity (Repeated Exposure): Recent studies of alumina refinery employees indicate that current exposures to aluminum compounds are not associated with significant adverse respiratory effects. The small changes in pulmonary functions parameters and respiratory symptoms observed were likely due to exposure to irritants and were not considered clinically significant.

12. ECOLOGICAL INFORMATION

Toxicity

Aluminum oxide: NOEC 96 hr Salmo trutta >100 mg/L; NOEC 48 hr daphnia magna >100 mg/L;
NOEC 72 hr Selenastrum capricornutum >100 mg/L

Persistence and biodegradability

Biodegradation is not applicable to inorganic substances.

Bioaccumulative potential

Data not available.

Mobility in Soil

Data not available.

Results of PBT and vPvB assessment

No components are classified as PBT or vPvB.

Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose in accordance with all local, state and national regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations

14. TRANSPORT INFORMATION

	UN Number	UN Proper shipping name	Hazard Class	Packing Group	Environmental Hazards
US DOT	None	Not regulated	None	None	
Canadian TDG	None	Not regulated	None	None	
EU ADR/RID	None	Not regulated	None	None	
IMDG	None	Not regulated	None	None	
IATA/ICAO	None	Not regulated	None	None	

Special precautions for user: None identified

Transport in bulk accordance to Annex II MARPOL 73/78 and the IBC Code: Not determined

15. REGULATORY INFORMATION

This Safety Data Sheet has been prepared in accordance with the requirements of regulation (EC) No 1907/2006 as amended by regulation (EU) No 453/2010.

Workplace exposure Limits given in section 8 have been taken from the UK HSE document: EH40/2005 Workplace exposure limits as amended.

Relevant regulations:

Regulation (EC) 1272/2008 (EU 'CLP' regulation)

Regulation (EC) 790/2009 First Adaptation to Technical Progress (ATP) for CLP regulation

Regulation (EC) 286/2011 Second Adaptation to Technical Progress (ATP) for CLP regulation

EU Directive 67/548/EEC ('Dangerous Substances Directive')

Regulation (EC) No 1907/2006 ('REACH')

Regulation (EU) No 453/2010.

Safety, health and environmental regulations/legislation specific for the substance or mixture
None identified

Chemical safety assessment

A Chemical Safety Assessment has not been undertaken for this product.

16. OTHER INFORMATION

The information contained in the Safety Data Sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, storage, transportation and disposal. It is not intended as a warranty or specification. The information relates only to the product specified and may not be suitable for combinations with other materials.