



SAFETY DATA SHEET

MATERION

1. Product and company identification

Product name Aluminum Oxide Product
Manufacturer/Supplier Materion Advanced Materials Group
Address 42 Mt. Ebo Road South
Brewster, NY 10509
United States
Telephone Supplier Phone 1+845.279.0900
e-mail Not available.
Contact person
Emergency telephone number Chemtrec 1+703.527.3887
Recommended use and Limitations on use
Recommended use Not available.
SDS number 62

2. Hazards identification

GHS classification
Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.

Label elements

Symbols None.
Signal word None.
Hazard statement None.

3. Composition/information on ingredients

Substance or mixture	Substance		
Chemical property	Synonyms	CAS Number	Concentration (%)
Aluminium oxide	Aluminum trioxide	1344-28-1	99.9 - 100
aluminum oxide			

4. First aid measures

Inhalation Not available.
Skin contact Not available.
Eye contact Not available.
Ingestion Not available.
Potential delayed effects Not available.
Personal protection for first-aid responders Not available.
Notes to physician Not available.

5. Fire-fighting measures

Extinguishing media Not available.
Extinguishing media to avoid None.
HAZCHEM Code Number None.
Specific hazards during fire fighting None.
Special fire fighting procedures Not available.
Protection of fire-fighters Not available.
Hazards from combustion products None.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Not available.

Environmental precautions Not available.

Spill cleanup methods Not available.

7. Handling and storage

Handling

Precautions Not available.

Safe handling advice Not available.

Prevention of fire and explosion Not available.

Storage

Suitable storage conditions Not available.

Incompatible materials Not available.

8. Exposure controls/personal protection

Exposure limits

New Zealand. WES. (Workplace Exposure Standards)

Material	Type	Value
Aluminum Oxide Product	TWA	10 mg/m3
Components	Type	Value

Aluminium oxide (CAS 1344-28-1)	TWA	10 mg/m3
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US. ACGIH Threshold Limit Values

Material	Type	Value	Form
Aluminum Oxide Product	TWA	1 mg/m3	Respirable fraction.
Components	Type	Value	Form
Aluminium oxide (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.

UK. EH40 Workplace Exposure Limits (WELs)

Material	Type	Value	Form
Aluminum Oxide Product	TWA	4 mg/m3	Respirable dust.
Components	Type	Value	Form
Aluminium oxide (CAS 1344-28-1)	TWA	10 mg/m3	Inhalable dust.
		4 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

Material	Type	Value	Form
Aluminum Oxide Product	TWA	10 mg/m3	Inhalable dust.
Components	Type	Value	Form
Aluminium oxide (CAS 1344-28-1)	TWA	10 mg/m3	Inhalable dust.

Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

Material	Type	Value	Form
Aluminum Oxide Product	TWA	10 mg/m3	Inspirable dust.
Components	Type	Value	Form
Aluminium oxide (CAS 1344-28-1)	TWA	10 mg/m3	Inspirable dust.

Biological limit values No biological exposure limits noted for the ingredient(s).

Engineering controls

Personal protective equipment

Respiratory protection Not available.

Skin protection	Not available.
Eye/face protection	Not available.
Radioactive or thermal hazards	Not available.
Hygiene measures	Not available.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Not available.
Colour	Not available.
Odour	Not applicable.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	2000 °C (3632 °F) estimated 2000 °C (3632 °F)
Boiling point, initial boiling point, and boiling range	2980 °C (5396 °F) estimated 2980 °C (5396 °F)
Flash point	Not available.
Auto-ignition temperature	Not applicable.
Flammability (solid, gas)	Not applicable.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	< 0.0000001 kPa at 25 °C 0.00001 hPa estimated
Vapour density	Not available.
Evaporation rate	Not available.
Relative density	Not available.
Density	4.00 g/cm ³ estimated 4.00 g/cm ³ estimated at 20 °C
Solubility(ies)	
Solubility (water)	Insoluble
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Molecular weight	101.94 g/mol
Other data	
Molecular formula	Al ₂ O ₃
Specific gravity	4 estimated 4 at 20 °C

10. Stability and reactivity

Stability	None.
Conditions to avoid	None.
Incompatible materials	None.
Hazardous decomposition products	None.
Possibility of hazardous reactions	None.

11. Toxicological information

Acute toxicity	Not available.
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Information on likely routes of exposure

Ingestion	Not available.
Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.
Routes of exposure	Not available.
Symptoms	Not available.
Skin corrosion/irritation	Not available.
Serious eye damage/eye irritation	Not available.
Skin sensitiser	Not available.
Chronic effects	Not available.
Relevant negative data	Not available.

12. Ecological information

Ecotoxicity	Not available.
Persistence and degradability	Not available.
Bioaccumulation	Not available.
Partition coefficient n-octanol/water (log Kow)	Not available.
Bioconcentration factor (BCF)	Not available.
Mobility	Not available.
Other hazardous effects	Not available.

13. Disposal considerations

Disposal methods/information	Not available.
Special precautions	Not available.

14. Transport information

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

Applicable regulations

New Zealand Inventory of Chemicals (NZIoC): Registration status

Aluminium oxide (CAS 1344-28-1)

May be used as a single component chemical under an appropriate group standard

16. Other information

References	Not available.
Issued by	Not available.
Prepared by	Not available.
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