Safety Data Sheet



Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

Relevant identified use(s) Restrictions on use 1.3 Details of the suppli Manufacturer	 Industrial, Commercial None known er of the safety data sheet Luxium Solutions 33 Powers Street Milford, NH 03055 United States www.Luxiumsolutions.com 	mixture and uses advised against
Telephone (General) •	(603) 673-5831	
1.4 Emergency telepho	ne number	
U.S. & Canada International	1-800-255-3924+1-813-248-0585	Velocity EHS Contract Number 6493674

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

2.1 Classification of the substance or mixture

CLP

Notclassified

2.2 Label Elements

CLP

Hazard statements · No label element(s) required

2.3 Other Hazards

CLP

• This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

• Not classified

2.2 Label elements OSHA HCS 2012 Hazard stateme	ents · No label element(s) required
2.3 Other hazards	
OSHA HCS 2012	 Under United States Regulations (29 CFR 1910.1200(c) - Hazard Communication Standard), the product(s) listed above are exempt as article(s) under stated normal conditions of use.
Canada According to: WHMIS 2015	5
2.1 Classification of th	ne substance or mixture
WHMIS	Not classified
2.2 Label elements WHMIS	No label element(s) required.
2.3 Other hazards	
WHMIS	 Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

GHS

According to: GHS Revision 9

- Classification of the substance or mixture
 GHS
 Not classified
 - Label elements
- GHS No label element(s) required.
 Other hazards Under the GHS, these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.
- Other information
- As an article this material does not legally require an SDS. The product does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Section 3 - Composition/Information on Ingredients

3.1 Substances

Chemical Name	Identifiers	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Aluminum oxide	CAS:1344-28-1 EC Number:215-691-6	100%	Not classified as hazardous

3.2 Mixtures

Material does not meet the criteria of a mixture.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation	 First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
Skin	 First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention.
Eye	 First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
Ingestion	 First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.
4.2 Most important	symptoms and effects, both acute and delayed
	 Under normal conditions of use, no health effects are expected.
4.3 Indication of any	y immediate medical attention and special treatment needed
Notes to Physician	No specific actions or treatments recommended related to exposure to this material.

Section 5 - Firefighting Measures	

5.1 Extinguishing media

Suitable Extinguishing Media	•	In case of fire use media as appropriate for surrounding fire.
Unsuitable Extinguishing Media	•	No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards	•	Material is non-combustible and is not expected to pose a fire or explosion hazard.
Hazardous Combustion Products	•	Not applicable
5.3 Advice for firefighters		
	•	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment, and emergency procedures

Personal Precautions No special precautions expected to be necessary if material is used under ordinary conditions and as recommended. · No emergency procedures are expected to be necessary if material is used under **Emergency Procedures** ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

Avoid release to the environment.

6.3 Methods and material for containment and cleaning up Measures Carefully shovel or sweep up spilled material and place in suitable container.

Containment/Clean-up

6.4 Reference to other sections

 Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

 Use good safety and industrial hygiene practices. Use proper ventilation and dust mask when cutting or grinding, wet cutting or grinding will prevent dusting. Do not drop, article may shatter.

7.2 Conditions for safe storage, including any incompatibilities

Storage

• Store in a cool, dryplace.

7.3 Specific end use(s)

• Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters (refer to local regulations for countries/regions not listed below)

Exposure Limits/Guidelines						
		ACGIH	China	Denmark	France	Germany DFG
Aluminum Oxide (1344-28-1)		1 mg/m3 TWA (respirable fraction) As Aluminum insoluble compounds)	4 mg/m3 TWA (respirable fraction)	5 mg/m3 TWA (inhalable fraction) 1.5 mg/m3 (respirable fraction)	10 mg/m3 TWA (respirable aerosol)	4 mg/m3 TWA (inhalable fraction) 1.5 mg/m3 (respirable fraction)

Exposure Limits/Guidelines						
	Greece	Hungary	US OSHA	Poland	Portugal	
Aluminum Oxide (1344-28-1)	1 mg/m3 TWA (respirable fraction) As Aluminum insoluble compounds)	5 mg/m3 TWA (total dust) 2 mg/m3 (respirable fraction)	15 mg/m3 TWA (total dust) 5 mg/m3 (respirable fraction)	2.5 mg/m3 TWA (total dust) 1.2 mg/m3 TWA (respirable dust)	10 mg/m3 TWA (particulate matter containing no Asbestos and < 1% Crystalline silica	

Exposure Limits/Guidelines						
		Spain	Sweden	United Kingdom	Ireland	Australia
Aluminum Oxide (1344-28-1)		10 mg/m3 TWA nhalable fraction)	5 mg/m3 TWA (total dust) 2 mg/m3 (respirable fraction)	10 mg/m3 TWA (inhalable fraction) 4 mg/m3 (respirable fraction)	10 mg/m3 TWA (inhalable fraction) 4 mg/m3 TWA (respirable fraction)	10 mg/m3 TWA (inhalable fraction)

Exposure Control Notations

Portugal

•Aluminum oxide (1344-28-1): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

ACGIH

•Aluminum oxide as Aluminum insoluble compounds: **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen) **Germany DFG**

•Aluminum oxide (1344-28-1): **Carcinogens:** (Category 2 (considered to be carcinogenic for man, fibre dust)) | **Pregnancy:** (classification not yet possible (respirable, inhalable, dust))

Exposure Limits Supplemental ACGIH

•Aluminum oxide as Aluminum insoluble compounds: **TLV Basis - Critical Effects:** (pneumoconiosis; lower respiratory tract irritation; neurotoxicity)

8.2 Exposure controls	
Engineering	 Adequate ventilation systems as needed to control concentrations of airborne
Measures/Controls	contaminants below applicable threshold limit values.
Personal Protective Equipm	ent
Respiratory	 If dust generation is anticipated a NIOSH approved disposable or other dust masks should be worn.
Eye/Face	Wear safety glasses .
Skin/Body	Wear appropriate gloves.
Environmental Exposure Controls	 Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.
Key to abbreviations ACGIH = ^{American} Conference of Gov Hygiene	ernmental Industrial TLV = Threshold Limit Value determined by the American Conference of Governmental Industrial Hygienists (ACGIH).
TWA = Time Weighted Averages are	pased on 8h/day, 40h/week exposures. OSHA = Occupational Safety and Health Administration

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description

Material Description			
Physical State	Solid	Appearance/Description	Glass-like, transparent solid with no odor.
Color	Transparent	Odor	Odorless
Odor Threshold	Not applicable	Particle Characteristics	Not applicable
General Properties		-	-
Boiling Point	Not applicable	Melting Point/Freezing Point	2053 C(3727.4 F)
Decomposition Temperature	Data lacking	рН	Not applicable
Specific Gravity/Relative Density	Data lacking	Water Solubility	Negligible < 0.1 %
Kinematic Viscosity	Not applicable	Explosive Properties	Not explosive
Oxidizing Properties:	Not oxidizing	Density	Data lacking
Volatility			
Vapor Pressure	Not applicable	Relative Vapor Density	Not applicable
Evaporation Rate	Not applicable		
Flammability			
Flash Point	Not applicable	UEL	Not applicable
LEL	Not applicable	Autoignition	Not applicable
Flammability (solid, gas, liquid)	Not flammable		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

tanol/Water Partition coefficient Data lacking

9.2 Other Information

• No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

10.2 Chemical stability

No dangerous reaction known under conditions of normal use

• Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.
- 10.4 Conditions to avoid
- No data available.

10.5 Incompatible materials

• No data available.

10.6 Hazardous decomposition products

• No data available.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

GHS Properties	Classification
Acute Toxicity	Based on the available data, the classification criteria are not met.
Skin corrosion/Irritation	Based on the available data, the classification criteria are not met.
Serious eye damage/Irritation	Based on the available data, the classification criteria are not met.
Skin sensitization	Based on the available data, the classification criteria are not met.
Respiratory sensitization	Based on the available data, the classification criteria are not met.
Germ Cell Mutagenicity	Based on the available data, the classification criteria are not met.
Carcinogenicity	Based on the available data, the classification criteria are not met.
Toxicity for Reproduction	Based on the available data, the classification criteria are not met.
STOT-RE	Based on the available data, the classification criteria are not met.
STOT-SE	Based on the available data, the classification criteria are not met.
Aspiration Hazard	Based on the available data, the classification criteria are not met.

11.2 Information on Other Hazards

11.2.1 Endocrine Disrupting Properties None known

11.2.2 Other Information:

No additional information available.

 Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs, but reactions are typically reversible.
No data available
 Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may cause mechanical irritation.
No data available
 Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may cause mechanical irritation.
No data available
 Under normal conditions of use, no health effects are expected.
No data available

Section 12 - Ecological Information	1
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12.1 Toxicity

• Material data lacking.

12.2 Persistence and degradability

Material data lacking.

12.3 Bioaccumulative potential

• Material data lacking.

12.4 Mobility in Soil

Material data lacking.

12.5 Results of PBT and vPvB assessment

• No PBT and vPvB assessment has been conducted.

12.6 Endocrine Disrupting Properties

• None known.

12.7 Other adverse effects

• None known.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

- Product waste
- Dispose in accordance with local, regional, national, and/or international regulations.
- Packaging waste
- Dispose of container in accordance with local, regional, national, and/or international

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
ΙΑΤΑ/ΙCΑΟ	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user14.7 Transport in bulk according to IMO Instruments

• None specified.

Not applicable. Transported in packaged form only.

Section 15 - Regulatory Information

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

SARA Hazard Classifications • None

State Right To Know		
Component	CAS	PA
Aluminum oxide	1344-28-1	Yes

		Invent	ory			
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Aluminum oxide	1344-28-1	Yes	No	Yes	Yes	No
Inventory (Con't.)						
Component	Component CAS Korea KECL TSCA					
Aluminum oxide		1344-28-1	Yes		Yes	

Canada

Environment Canada - CEPA - Priority Substances List • Aluminumoxide	1344-28-1	Not Listed
China Environment		
China - Ozone Depleting Substances - First Schedule Aluminum oxide 	1344-28-1	Not Listed
China - Ozone Depleting Substances - Third Schedule Aluminumoxide 	1344-28-1	Not Listed
China - Ozone Depleting Substances - Second Schedule Aluminumoxide 	1344-28-1	Not Listed

Other China - Annex I & II - Controlled Chemicals Lists • Aluminumoxide	1344-28-1	Not Listed
China - Dangerous Goods List Aluminumoxide 	1344-28-1	Not Listed

Germany

 abor Germany - Immission Control - Qualifying Quantities for Major Accident Prevention Aluminum oxide 	1344-28-1	Not Listed
Germany - Immission Control - Qualifying Quantities for Safety Reporting Aluminum oxide 	1344-28-1	Not Listed
Germany - TRGS 505 - Specific Lead Regulations Aluminum oxide 	1344-28-1	Not Listed
Germany - TRGS 511 - Specific Ammonium Nitrate Regulations • Aluminum oxide	1344-28-1	Not Listed
nvironment		
Germany - TA Luft - Types and Classes • Aluminum oxide	1344-28-1	Not Listed
Germany - TA Luft - Emission Limits for Carcinogenic Substances Aluminum oxide 	1344-28-1	Not Listed
Germany - TA Luft - Emission Limits for Fibers Aluminumoxide 	1344-28-1	Not Listed
Germany - TA Luft - Emission Limits for Inorganic Dusts Aluminumoxide 	1344-28-1	Not Listed
Germany - TA Luft - Emission Limits for Inorganic Gases Aluminumoxide 	1344-28-1	Not Listed
Germany - TA Luft - Emission Limits for Organic Substances Aluminumoxide 	1344-28-1	Not Listed
Germany - Water Classification (VwVwS) - Annex 1		
Aluminumoxide	1344-28-1	ID Number 1346, not considered hazardous to water
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes Aluminumoxide 	1344-28-1	Not Listed
Germany - Water Classification (VwVwS) - Annex 3 • Aluminumoxide	1344-28-1	Not Listed

United States

-Labor-

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Aluminumoxide	1344-28-1	Not Listed
U.S OSHA - Specifically Regulated ChemicalsAluminum oxide	1344-28-1	Not Listed
Environment		
 U.S CAA (Clean Air Act) - 1990 Hazardous Air Pollutants Aluminum oxide 	1344-28-1	Not Listed
U.S CERCLA/SARA - Hazardous Substances and their Reportable Quantities Aluminum oxide 	1344-28-1	Not Listed
U.S CERCLA/SARA - Radionuclides and Their Reportable Quantities Aluminum oxide 	1344-28-1	Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs • Aluminum oxide	1344-28-1	Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs Aluminum oxide 	1344-28-1	Not Listed
 U.S CERCLA/SARA - Section 313 - Emission Reporting Aluminum oxide 	1344-28-1	1.0 % de minimis concentration (fibrous forms)
U.S CERCLA/SARA - Section 313 - PBT Chemical Listing Aluminum oxide 	1344-28-1	Not Listed

United States - California

Environment U.S California - Proposition 65 - Carcinogens List • Aluminum oxide	1344-28-1	Not Listed
 U.S California - Proposition 65 - Developmental Toxicity Aluminum oxide 	1344-28-1	Not Listed
U.S California - Proposition 65 - Maximum Allowable Dose Levels (MADL) Aluminum oxide 	1344-28-1	Not Listed
 U.S California - Proposition 65 - No Significant Risk Levels (NSRL) Aluminum oxide 	1344-28-1	Not Listed
 U.S California - Proposition 65 - Reproductive Toxicity - Female Aluminum oxide 	1344-28-1	Not Listed
U.S California - Proposition 65 - Reproductive Toxicity - Male • Aluminum oxide	1344-28-1	Not Listed

United States - Pennsylvania

Labor		
U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List		
Aluminumoxide	1344-28-1	

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Aluminumoxide

15.2 Chemical Safety Assessment

• No Chemical Safety Assessment has been carried out.

Section 16 - Other Information	
Revision Date	• 28/October/2022
Preparation Date	01/September/1985
Disclaimer/Statement of Liability	 The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.
Key to abbreviations NDA = No Data Available	