

SAFETY DATA SHEET

Date: June 2015

Section #1: PRODUCT AND COMPANY IDENTIFICATION

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Product Identification: Abrasive Powder

Product Name: White Calcined Alumina Abrasive Powder Product Use: Calcined Alumina Abrasive Powder to Lap/Polish Components

2 Hazards identification

2.1 Classification of the substance or mixture
 Classification according to Regulation (EC) No 1272/2008

The product is not classified as hazardous according to GHS regulations.

The product is not classified as hazardous according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable. Information concerning particular hazards for human and environment:

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

2.2 Label elements

- · Labelling according to Regulation (EC) No 1272/2008 Not Regulated
- Hazard pictograms Not Regulated
- · Signal word Not Regulated
- · Hazard-determining components of labelling: None,
- Hazard statements Not Regulated
- Hazard description:
- WHMIS-symbols: Not hazardous under WHMIS.
- NFPA ratings (scale 0 4)

Health = 1 Fire = 0 Reactivity = 0

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· HMIS-ratings (scale 0 - 4)

HEALTH 1 Health = 1 FIRE 0 Fire = 0 REACTIVITY Reactivity = 0

· HMIS Long Term Health Hazard Substances

None of the ingredients is listed.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

3 Composition/information on ingredients

· 3.2 Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 1344-28-1 aluminium oxide substance with a Community workplace exposure limit 50-100% EINECS: 215-691-6

· Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

• 4.1 Description of first aid measures

· General information: No special measures required.

· After inhalation:

Supply fresh air; consult doctor in case of complaints.

- Provide oxygen treatment if affected person has difficulty breathing.
- After skin contact:

Brush off loose particles from skin.

Clean with water and soap.

If skin irritation continues, consult a doctor.

• After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

• After swallowing: Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Gastric or intestinal disorders when ingested.

Nausea in case of ingestion.

· Hazards No further relevant information available.

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• **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Firefighting measures

- · 5.1 Extinguishing media
- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- For safety reasons unsuitable extinguishing agents: None.
- · 5.2 Special hazards arising from the substance or mixture
- Formation of toxic gases is possible during heating or in case of fire.
- 5.3 Advice for firefighters
- Protective equipment:
- Wear self-contained respiratory protective device.
- Wear fully protective suit.
- Additional information No further relevant information available.

6 Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Use respiratory protective device against the effects of fumes/dust/aerosol. Ensure adequate ventilation Avoid formation of dust.
 Wear protective equipment. Keep unprotected persons away.
 6.2 Environmental procession of protection of a pro
- \cdot 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- $^{\circ}$ 6.3 Methods and material for containment and cleaning up:
- Pick up mechanically.

Dispose contaminated material as waste according to item 13.

- 6.4 Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7 Handling and storage

· 7.1 Precautions for safe handling

Prevent formation of dust.

Any unavoidable deposit of dust must be regularly removed.

· Information about fire - and explosion protection: No special measures required.

\cdot 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

• Requirements to be met by storerooms and receptacles: No special requirements. • Information about storage in one common storage facility:

- Store away from foodstuffs.
- Protect from humidity and water.

• Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.

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· 7.3 Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

· 8.1 Control parameters

· 8.1 Control parameters		
· Ingredients with limit values that require monitoring at the workplace:		
1344-28-1 aluminium oxide		
PEL (USA)	Long-term value: 15*; 15** mg/m ³ *Total dust; ** Respirable fraction	
REL (USA)	Long-term value: 10* 5** mg/m ³ *Total dust **Respirable fraction	
TLV (USA)	Long-term value: 1* mg/m ³ as AI; *as respirable fraction	
EL (Canada)	Long-term value: 10 mg/m ³	
EV (Canada)	Long-term value: 10 mg/m ³ total dust	
	ther relevant information available.	
	rther relevant information available.	
· Additional in	formation: The lists valid during the making were used as basis.	
General prot The usual prot Keep away fro Wash hands I Do not inhale Avoid contact Respiratory p Use suitable r For spills, res Use respirator Protection of No chemical-p	tective equipment: ective and hygienic measures: cautionary measures are to be adhered to when handling chemicals. om foodstuffs, beverages and feed. before breaks and at the end of work. dust / smoke / mist. with the eyes. orotection: espiratory protective device in case of insufficient ventilation. biratory protection may be advisable. ry protection when grinding or cutting material. i hands: protective gloves required. for the protection against mechanical hazards according to NIOSH or EN 388.	
Safet	y glasses	
Protection ma	ion: inder normal conditions of use. y be required for spills. Id supervision of exposure into the environment No special requirements. (Contd. on page 5)	

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· Risk management measures No special requirements.

9 Physical and chemical properties

 9.1 Information on basic physical and General Information 	chemical properties
 Appearance: Form: Colour: Odour: Odour threshold: 	Crystalline powder White Odourless Not determined.
· pH-value:	Not applicable.
· · Change in condition Melting point/Melting range: Boiling point/Boiling range:	3632 °F / 2000 °C Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not determined.
· Auto/Self-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not self-igniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits: Lower: Upper:	Not determined. Not determined.
· Vapour pressure:	Not applicable.
 Density at 20 °C: Relative density Vapour density Evaporation rate 	3,94 g/cm³ Not determined. Not applicable. Not applicable.
 Solubility in / Miscibility with water: 	Insoluble.
· Partition coefficient (n-octanol/water)	: Not determined.
 Viscosity: Dynamic: Kinematic: 9.2 Other information 	Not applicable. Not applicable. No further relevant information available.

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10 Stability and reactivity

· 10.1 Reactivity

- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:
- No decomposition if used and stored according to specifications.
- 10.3 Possibility of hazardous reactions
- Reacts with strong acids and alkali.

As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion.

- **10.4 Conditions to avoid** Moisture.
- 10.5 Incompatible materials: No further relevant information available.
- **10.6 Hazardous decomposition products:** Toxic metal oxide smoke

11 Toxicological information

- · 11.1 Information on toxicological effects
- Acute toxicity:
- Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: Slight irritant effect on eyes.
- · Sensitization: No sensitizing effects known.
- Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: Generally not hazardous for water
- **12.2 Persistence and degradability** No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:
- Negative ecological effects are, according to the current state of knowledge, not expected.
- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

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13 Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Smaller quantities can be disposed of with household waste. Contact waste processors for recycling information.

· Uncleaned packaging:

• Recommendation: Disposal must be made according to official regulations.

14 Transport information

 14.1 UN-Number DOT, ADR, ADN, IMDG, IATA 14.2 UN proper shipping name DOT, ADR, ADN, IMDG, IATA 14.3 Transport hazard class(es) 	Not Regulated Not Regulated
DOT, ADR, ADN, IMDG, IATA Class 14.4 Packing group DOT, ADR, IMDG, IATA	Not Regulated Not Regulated
 14.5 Environmental hazards: Marine pollutant: 14.6 Special precautions for user 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code UN "Model Regulation": 	No Not applicable. Not applicable.

15 Regulatory information

 $^{\cdot}$ 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture $^{\cdot}$ United States (USA)

Section 355 (extremely hazardous substances): None of the ingredients is listed. Section 313 (Specific toxic chemical listings): All ingredients are listed. TSCA (Toxic Substances Control Act): All ingredients are listed.	
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Droposition CE (Colifornia):	
Proposition 65 (California): Chemicals known to cause cancer: Present in trace quantities.	
1317-95-9 Silica-Crystalline Tripoli	

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· Chemicals known to cause reproductive toxicity for females:	
None of the ingredients is listed.	
· Chemicals known to cause reproductive toxicity for males:	
None of the ingredients is listed.	
· Chemicals known to cause developmental toxicity:	
None of the ingredients is listed.	
· Carcinogenic Categories	
· EPA (Environmental Protection Agency)	
None of the ingredients is listed.	
· IARC (International Agency for Research on Cancer)	
None of the ingredients is listed.	
TLV (Threshold Limit Value established by ACGIH)	
1344-28-1 aluminium oxide	A4
NIOSH-Ca (National Institute for Occupational Safety and Health)	· · ·
None of the ingredients is listed.	
· Canada	
· Canadian Domestic Substances List (DSL)	
All ingredients are listed.	
· Canadian Ingredient Disclosure list (limit 0.1%)	
None of the ingredients is listed.	
· Canadian Ingredient Disclosure list (limit 1%)	
All ingredients are listed.	
· Other regulations, limitations and prohibitive regulations	
· Substances of very high concern (SVHC) according to REACH, Article 57	
None of the ingredients is listed.	
· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried of	out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and Labelling of Chemicals ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) (Contd. on page 9)

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HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) DNEL: Derived No-Effect Level (REACH) PNEC: Predicted No-Effect Concentration (REACH)

THIS PRODUCT IS CERTIFIED TO BE RoHS COMPLIANT

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