

Safety data sheet

Printing date: 24.05.2016



According to 1907/2006/EC (REACH), 1272/2008/EC (CLP),
and US GHS

Revision: 27.06.2018

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

1.1	Product Identifier	ZF, ZS Alundum
	GHS Product Identifier	ZF, ZS Alundum
	Chemical Name	Alumina Titania Zirconia
	Trade Name	See Product Identifier
	CAS No.	Mixture
	EINECS No.	Mixture
	REACH Registration No.	Not available
1.2	Relevant Identified Uses Of The Substance Or Mixture And Uses Advised Against	
	Application of the substance / the mixture	Product Component
1.3	Details Of The Supplier Of The Safety Data Sheet	
	Company Identification	Washington Mills
	Address	1801 Buffalo Avenue Niagara Falls, NY 14302
	Telephone	1-800-828-1666
	E-Mail (Competent Person)	info@washingtonmills.com
1.4	Emergency Telephone Number – ChemTel	
	(800)255-3924 (USA/Canada), 813-248-0585 (International)	

SECTION 2: HAZARDS IDENTIFICATION

2.1	Classification Of The Substance Or Mixture	
2.1.1	Classification according to Regulation (EC) No. 1272/2008 (CLP)	
	The product is not classified as hazardous according to OSHA GHS regulation within the United States. The product is not classified as hazardous according to the CLP regulation.	
2.2	Label Elements	
2.2.1	Label Elements According to Regulation (EC) No. 1272/2008 (CLP)	
	This product does not have a classification according to the CLP regulation. The product is not classified as hazardous according to OSHA GHS regulations within the United States.	
	Hazard-determining components of labelling:	None
	Hazard	Not Regulated
	Statement(s)	
	Additional information	None
	Hazard description:	
	NFPA ratings (scale 0 - 4)	 Health = 0 Fire = 0 Reactivity = 0
	HMIS-ratings (scale 0 - 4)	 Health = 0 Fire = 0 Reactivity = 0
	HMIS Long Term Health Hazard Substances	None of the ingredients are listed.
2.3	Other Hazards	
	Results of PBT and vPvB assessment	PBT: Not applicable. vPvB: Not applicable.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous Components:

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.	Hazard Pictogram(s)	Hazard Statement(s)
aluminium oxide	50-100	1344-28-1	215-691-6	None	substance with a Community workplace exposure limit
zirconium dioxide	25-50	1314-23-4	215-227-2	None	substance with a Community workplace exposure limit
hafnium dioxide	≤ 2,5	12055-23-1	235-013-2	None	substance with a Community workplace exposure limit

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

General Information: No special measures required

After Inhalation: Provide fresh air; consult doctor in case of complaints.

After Skin Contact: Brush off loose particles from skin. Wash with soap and water. If skin irritation is experienced, 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: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

4.2 Most Important Symptoms And Effects, Both Acute And Delayed

Slight irritant effect on eyes.

Hazards

No further relevant information available.

4.3 Indication Of The Immediate Medical Attention And Special Treatment Needed

No further relevant information available.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media Use fire extinguishing methods suitable to surrounding conditions.

Unsuitable Extinguishing Media None.

5.2 Special Hazards Arising From The Substance Or Mixture

No further relevant information available.

5.3 Advice for Fire-Fighters

Wear self-contained respiratory protective device. Wear fully protective suit.

Additional Information

No further relevant information available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment And Emergency Procedures

Avoid formation of dust. For large spills, use respiratory protective device against the effects of fumes/dust/aerosol. For large spills, wear protective clothing. Ensure adequate ventilation

6.2 Environmental Precautions

No special measures required.

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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.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions For Safe Handling	Use only in well ventilated areas. Prevent formation of dust. Any unavoidable deposit of dust must be regularly removed.
Information About Fire – and explosion protection	No special measures required.
7.2 Conditions For Safe Storage, Including Any Incompatibilities: Requirements to be Met by Storerooms and Receptacles:	No special requirements.
Information About Storage in One Common Storage Facility:	Store away from oxidizing agents. Store away from foodstuffs. Do not store together with acids.
Further information about storage conditions:	Store in cool, dry conditions in well sealed receptacles.
7.3 Specific End Use(s)	No further relevant information available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

8.1 Control Parameters

Ingredients with limit values that require monitoring at the workplace:

Ingredient	Product Code	Limit Value	Notes
aluminium oxide	1344-28-1	PEL (USA)	Long-term value: 15*; 15** mg/m ³ *Total dust; ** Respirable fraction
		REL (USA)	Long-term value: 10* 5** mg/m ³ as Al*Total dust**Respirable/pyro powd./welding f.
		TLV (USA)	Long-term value: 1* mg/m ³ as Al; *as respirable fraction
		EL (Canada)	Long-term value: 1,0 mg/m ³ respirable, as Al
		EV (Canada)	Long-term value: 10 mg/m ³ total dust
zirconium dioxide	1314-23-4	PEL (USA)	Long-term value: 5 mg/m ³ as Zr
		REL (USA)	Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ as Zr
		TLV (USA)	Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ as Zr
		EL (Canada)	Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ as Zr
Hafnium dioxide	12055-23-1	PEL (USA)	Long-term value: 0,5 mg/m ³ as Hf
		REL (USA)	Long-term value: 0,5 mg/m ³ as Hf
		TLV (USA)	Long-term value: 0,5 mg/m ³

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		as Hf
	EL (Canada)	Long-term value: 0,5 mg/m ³ as Hf
	EV (Canada)	Long-term value: 0,5 mg/m ³
<p>DNELs No further relevant information available. PNECs No further relevant information available. Additional information: The lists valid during the making were used as basis.</p>		

8.2	Exposure Controls	
8.2.2	Personal Protective Equipment:	
	General protective and hygienic measures:	The usual precautionary measures are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Do not inhale dust / smoke / mist. Avoid contact with the eyes and skin.
	Respiratory Protection	Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. For spills, respiratory protection may be advisable.
	Eye Protection	Wear safety glasses.
	Protection of Hands	Wear protective gloves.
	Body Protection	Not required under normal conditions of use. Protection may be required for spills.
	Limitation and supervision of exposure into the environment	No further relevant information available.
	Risk Management Measures	No special requirements.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	Information On Basic Physical And Chemical Properties		
Appearance	Granulate	Color	Grey
Odor	Odourless	Odor Threshold (ppm)	Not available
Melting Point (°C) / Freezing Point (°C)	Not available	Boiling Point/Boiling Range (°C)	Not available
Flash Point (°C)	No Data	Explosive Limit Ranges	Not available
Auto Ignition Temperature (°C)	Not available	Decomposition Temperature (°C)	Not available
Explosive Properties	None	Oxidizing Properties	Not available
Flammability (Solid, Gas)	Not available	Ph (Value)	Not available
Evaporation Rate	N/A	Vapor Pressure (mm Hg)	Not available
Vapor Density (Air=1)	N/A	Density (g/ml)	4,4 g/cm ³
Solubility (Water)	Insoluble	Solubility (Other)	Not available
Partition Coefficient (N-Octanol/Water)	Not available	Viscosity (mPa.s)	Not available
9.2	Other Information Volatile Organic Chemical (VOC) Content – Not Available.		

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SECTION 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. Reacts with strong oxidising agents.
10.4	Conditions To Avoid	No further relevant information available.
10.5	Incompatible Materials	No further relevant information available.
10.6	Hazardous Decomposition Product(s)	No dangerous decomposition products known.

SECTION 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.
	Sensitisation:	No sensitizing effects known.
	Additional toxicological information:	When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us. The substance is not subject to classification according to the latest version of the EU lists.

SECTION 12: ECOLOGICAL INFORMATION

12.1	Toxicity	
	Aquatic toxicity:	No further relevant information available.
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:	Not known to be hazardous to water.
12.5	Results of PBT and vPvB Assessment	PBT: Not applicable. vPvB: Not applicable.
12.6	Other Adverse Effects	No further relevant information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	Waste Treatment Methods Recommendation	Smaller quantities can be disposed of with household waste. Contact waste processors for recycling information. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
	Uncleaned Packaging: Recommendation:	Disposal must be made according to official regulations.

SECTION 14: TRANSPORT INFORMATION

Land Transport (ADR/RID) (c)(d)	Land Transport (Within USA) (b)(d)
UN Number None	UN Number None

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Proper Shipping Name	Not classified as dangerous for transport.	Proper Shipping Name	Not classified as dangerous for transport.
Transport Hazard Class(es)	None	Transport Hazard Class(es)	None
Packing Group	None	Packing Group	None
Hazard Label(s)	None	Hazard Label(s)	None
Environmental Hazards	None	Environmental Hazards	None
Special Precautions For User	None	Special Precautions For User	None
Sea Transport (IMDG) (c)		Air Transport (ICAO/IATA) (c) (d)	
UN Number	None	UN Number	None
Proper Shipping Name	Not classified as dangerous for transport.	Proper Shipping Name	Not classified as dangerous for transport.
Transport Hazard Class(es)	None	Transport Hazard Class(es)	None
Packing Group	None	Packing Group	None
Marine Pollutant	None	Marine Pollutant	None
Special Precautions For User	None	Special Precautions For User	None
<p>(b)- ORM-D may be applicable within the USA for package sizes less than 30kg. (c)- Consult with transport provider. (d)- Check relevant regulations for Special Provisions.</p> <p>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</p>			

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health And Environmental Regulations/Legislation Specific For The Substance Or Mixture

USA

SARA

Section 355 (extremely hazardous substances)

None of the ingredients are listed.

SARA 313 (Specific toxic chemical listings)

Aluminum oxide listing is only relevant to fibrous forms and is not applicable to the product as supplied. All ingredients are listed.

TSCA (Toxic Substance Control Act)

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

Carcinogenic Categories

EPA (Environmental Protection Agency)

None of the ingredients are listed.

IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

TLV (Threshold Limit Value established by ACGIH)

1344-28-1 aluminium oxide A4

1314-23-4 zirconium dioxide A4

MAK (German Maximum Workplace Concentration)

1344-28-1 aluminium oxide 2

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

Canada

Canadian Domestic Substances List (DSL)

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 are listed.

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15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

SECTION 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.

Additional information:

- The accumulation of airborne dust particles may lead to health and safety risks in some cases. The use of good industrial practices will mitigate this risk.
- The health risks from inhalation of dust particles vary; this is due to particle concentration, exposure length, number of exposures and type of particles inhaled. Please read Section 2,4,6,7 and 8 of the SDS to understand these potential risks. Wear personal protective equipment and follow storage and handling procedures to maintain a safe workplace.
- In rare instances, combustible dusts may represent a potential explosion hazard when airborne. This hazard is often associated with organic dust such as foodstuffs and coal, but may also occur with mineral products. While the majority of our products would be considered non-combustible, the overall airborne environment should be considered when determining the need for mitigation from the potential hazard. Consult recognized experts when necessary in order to determine any possible hazard.

Please read the SDS for specific information concerning these hazards, and contact us with any further questions. We appreciate your continued business.

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 Harmonised 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)

HMIS: Hazardous Materials Identification System (USA)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

Sources

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com