

# Material Safety Data Sheet (MSDS)

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

- a. Product type: Coated Abrasive Products (KZ563)
- b. Manufacturer : DEERFOS CO.,LTD
- c. The department of writer : R&D (Research and Development) Center
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## 2. HAZARDS IDENTIFICATION

- a. The hazard identification is based on a formalistic procedure as the hazard statements of the ingredients.
- b. The hazard statements of the ingredients are summarized under section 3.
- c. A greater hazard is the exposure to the dust/fumes from the material or coatings.
- d. Most of the dust generated during grinding must be evaluated.

## 3. COMPOSITION /INFORMATION ON INGREDIENTS

Composition	CAS No	Conc. (%)	Classification acc. OSHA Hazard Communication	
			Hazard classes / hazard categories	Hazard statements
ALUNDUM	1344-28-1	13		
ZIRCONIUM OXIDE	1314-23-4	12		
CALCIUM CARBONATE, NATURAL	1317-65-3	5		
WOLLASTONITE(Ca(SiO3))	13983-17-0	3		
Titanium Dioxide	13463-67-7	2		
Cryolite	15096-52-3	10	Acute Tox. 4 STOT wdh. 1	H332 H372
PHENOL, POLYMER WITH FORMALDEHYDE	9003-35-4	27	Carc. 1B Acute Tox. 3 Acute Tox. 3 Acute Tox. 3 Skin Corr. 1B Skin Sens. 1	H350 H301 H311 H331 H314 H317
Cotton	-	27		
	-	1~3		

※ Reference

H350 : May cause cancer

- H301 : Toxic if swallowed
- H311 : Toxic in contact with skin
- H331 : Toxic if inhaled
- H332 : Harmful if inhaled
- H314 : Causes severe skin burns and eye damage
- H317 : May cause an allergic skin reaction
- H372 : Causes damage to organs through prolonged or repeated exposure

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#### 4. FIRST AID MEASURES

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- a. Eye Contact
  - Do not let the victim rub his eyes.
  - Gently rinse the affected eyes with clean water for at least 15 minutes.
  - Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.
- b. Skin Contact
  - Do not absorbed through skin.(may cause abrasions)
  - Obtain first aid or medical assistance, if needed.
- c. Inhalation
  - Remove to fresh air.
  - Apply artificial respiration as needed.
  - Obtain first aid or medical assistance.
- d. Ingestion
  - Obtain first aid or medical assistance, if needed.

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#### 5. FIRE FIGHTING MEASURES

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- a. Extinguishing media
  - Dry chemical powder, carbon dioxide, water should be used fires.
  - Use extinguishing medias appropriate to the source of the fire.
- b. Special fire fighting procedures
  - Backing & resin binder will burn or decompose, use respiratory protection.

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#### 6. ACCIDENTAL RELEASE MEASURES

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No special measures required.

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#### 7. HANDLING AND STORAGE

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- a. Keep temperature at 0°C - 40°C
- b. Keep humidity at 30-60%
- c. In use, do not smoke or eat
- d. Avoid rough handling or dropping
- e. Protect against physical damage

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#### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

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- a. Control parameters

- Hazardous dust of the workpiece material may be generated during sanding operations.
- National regulations for dust exposures limit values have to be taken into consideration.
- Observe the regional official regulations.

Substance	CAS-N°	Agency	Threshold limits
Zirconium Compounds	1314-23-4	ACGIH	TWA (as Zr): 5mg/m <sup>3</sup> STEL (as Zr): 10mg/m <sup>3</sup>
		OSHA	TWA (as Zr) : 5mg/cm <sup>3</sup>
alpha- Alumina	1344-28-4	OSHA	TWA: 15mg/m <sup>3</sup> (total dust) TWA: 15mg/m <sup>3</sup> ( respirable fraction )
		CMRG	TWA : 1fiber/cm <sup>3</sup>
Titanium Dioxide	13463-67-6	ACGIH	TWA: 10mg/m <sup>3</sup>
		CMRG	TWA : 5 mg/m <sup>3</sup> (raspirable dust)
		OSHA	TWA : 5 mg/m <sup>3</sup> (Total dust)
Cryolite	15096-52-3	ACGIH	TWA (as F): 2.5 mg/m <sup>3</sup>
		OSHA	TWA: 2.5mg/m <sup>3</sup> (total dust)
			TWA (as F): 2.5 mg/m <sup>3</sup>
Formaldehyde	50-00-0	ACGIH	TWA: 0.1mg/m <sup>3</sup> STEL : 0.3 mg/m <sup>3</sup>
		OSHA	TWA : 0.75 mg/m <sup>3</sup> STEL : 2 mg/m <sup>3</sup>
		NIOSH	TWA : 0.016 mg/m <sup>3</sup>

※ Reference

ACGIH : American Conference of governmental Industrial Hygienists

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor-Occupational Safety and Health Administration

NIOSH : National Institute

TWA : Time-Weighted- Averde

STEL : Short Term Exposure Limit

- As needed, approved dust respirator.
- Wear protective eye glasses or chemical safety goggles.
- No precautions other than clean body covering clothing should be needed.
- As needed, hearing protection.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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- Physical state, form : Solid
- Color : Blue
- Odor : None
- Boiling point : N/A
- Melting point : N/A
- Solubility in water : N/A
- Vapor pressure : N/A
- Specific gravity : N/A

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## 10. STABILITY AND REACTIVITY

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- This material is stable.
- Hazardous decomposition and polymerization will not occur.

c. Decomposition products : In use, dust and decomposing resin system fumes are generated. In most cases, the material removed from the work piece will be significantly greater than the coated abrasive product components.

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## 11. TOXICOLOGICAL INFORMATION

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- a. Dust may cause respiratory irritation
- b. Rubbing product across the skin may cause mechanical irritation or abrasions.
- c. Dust particles may cause abrasive injury to the eyes.

### d. Acute Toxicity

Zirconium Oxide	Oral	> 5000 mg/kg (LD50, rat)
	Inhalation	> 4.3 mg/L/h (LC50, rat)
Aluminium Oxide	Oral	> 5000 mg/kg (LD50, rat)
	Inhalation	> 7.6 mg/L/h (LC50, rat)
Cryolite	Oral	> 10000 mg/kg (LD50, rat)
	Inhalation	> 200 mg/L (LC50, rat)
	Dermal	> 2000 mg/kg (LD50, rabbit)
Titanium Dioxide	Dermal	> 10000 mg/kg (LD50, rabbit)
	Inhalation	> 6.82 mg/L/4h (LC50, rat)
	Ingestion	> 10000 mg/kg (LD50, rat)
Formaldehyde	Oral	> 5000 mg/kg (LD50, rat)
	Inhalation	> 0.578 mg/L/4h (LC50, rat)
	Dermal	> 270 mg/kg (LD50, rabbit)

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## 12. ECOLOGICAL EFFECTS

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- a. This substance is not biodegradable.
- b. This substance is not bioaccumulative.
- c. This substance is not fish toxic.

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## 13. DISPOSAL CONSIDERATION

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This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber.

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## 14. TRANSPORT INFORMATION

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No relevant information found

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## 15. REGULATORY INFORMATION

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California Proposition 65 :

**⚠️ WARNING** : This product can expose you to Formaldehyde and Titanium dioxide, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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## 16. OTHER INFORMATION

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a. References

- Chemical substances of unknown or variable composition complex reaction products and biological material.
- Coated abrasives modern tool of industry.

b. Other

- The information and recommendations set forth herein are taken from sources believed to be accurate as of the date hereof ; however, DEERFOS CO.,LTD. makes no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assumes no liability to any user thereof.
- Please consult DEERFOS CO.,LTD. for further information.

c. Revision Date : 17. July. 2018

d. Revision Number : 2