Material Safety Data Sheet (MSDS)

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

- a. Product type: Coated Abrasive Products (PG730)
- b. Manufacturer : DEERFOS CO.,LTD
- c. The department of writer : R&D (Research and Development) Center
- d. Written by : Minho Kim (Mr.)
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2. HAZARDS IDENTIFICATION

- a. The hazard identification is based on a formalistic procedure as the hazard statements of the ingredier
- b. The hazard statements of the ingredients are summarizies 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	
			Standard, 29 CFR 1910.1200.	
			Hazard classes / hazard	Hazard
			categories	statements
ALUNDUM	1344-28-1	30		
PHENOL, POLYMER WITH FORMALDEHYDE	9003-35-4	21	Carc. 1B	H350
			Acute Tox. 3	H301
			Acute Tox. 3	H311
			Acute Tox. 3	H331
			Skin Corr. 1B	H314
			Skin Sens. 1	H317
Titanium Dioxide	13463-67-7	2		
CALCIUM CARBONATE,	1317-65-3	11~14		
NATURAL				
WOLLASTONITE(Ca(SiO3))	13983-17-0	0~3		
PE	-	16		
-	-	1-2		

※ 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 secere skin burns and eye damage
- H317 : May cause an allergic skin reaction
- H372 : Causes damage to organs through prolonged or repeated exposure

4. FIRST AID MEASURES

- 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.

5. FIRE FIGHTING MEASURES

- 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.

6. ACCIDENTAL RELEASE MEASURES

No special measures required.

7. HANDLING AND STORAGE

- 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

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

- 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	
alpha- Alumina	1344-28-4	OSHA	TWA: 15mg/m³ (total dust)	
			TWA: 15mg/m ³ (respirable fraction)	
		CMRG	TWA:1fiber/cm³	
Formaldehyde	50-00-0	ACGIH	TWA: 0.1mg/m³	
			STEL: 0.3 mg/m ³	
		OSHA	TWA:0.75 mg/m ³	
			STEL: 2 mg/m ³	
		NIOSH	TWA:0.016 mg/m [°]	
Titanium Dioxide	13463-67-6	ACGIH	TWA: 10mg/m ³	
		CMRG	TWA:5 mg/m³ (raspirable dust)	
		OSHA	TWA:5 mg/m [°] (Total dust)	
Potassium Fluoroborates	14075-53-7	ACGIH	TWA (as F): 2.5 mg/m ³	
		OSHA	TWA:2.5 mg/m³ (tatal dust)	
			TWA (as F): 2.5 mg/m ³	

※ 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- Averge STEL : Short Term Exposure Limit

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

9. PHYSICAL AND CHEMICAL PROPERTIES

- a. Physical state, form : Solid
- b. Color : Brown
- c. Odor : None
- d. Boiling point : N/A
- e. Melting point : N/A
- f. Solubility in water : N/A
- g. Vapor pressure : N/A
- h. Specific gravity : N/A

10. STABILITY AND REACTIVITY

- a. This material is stable.
- b. 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.

11. TOXICOLOGICAL INFORMATION

- a. Dust may cause respiratory irritaion
- 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

Aluminium Oxide	Oral	> 5000 mg/kg (LD50, rat)	
Aluminium Oxide	Inhalation	> 7.6 mg/L/h (LC50, rat)	
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)	
Potassium Fluoroborate	Oral	> 2000 mg/kg (LD50, rat)	

12. ECOLOGICAL EFFECTS

- a. This substance is not biodegradable.
- b. This substance is not bioaccumulate.
- c. This substance is not fish toxicity.

13. DISPOSAL CONSIDERATION

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

14. TRANSPORT INFORMATION

No relevant information found

15. REGULATORY INFORMATION

California Proposition 65:

WARNING : This product can expose you to Formaldehyde and Titanoum dioxide, which is known t to cause cancer. For more information go to www.P65Warnings.ca.gov.

16. OTHER INFORMATION

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