

SECTION 1. CHEMICAL PRODUCT AND COMPANY NAME

**Depressed Centre Grinding Wheel Type 27
 Flat Cutting –Off Wheel (Chop Saw) Type 41
 Flexible Wheel**

Safety Data Sheet

Complies with the OSHA Hazard
 Communication Standard :
 29 CFR 1910 1200

SECTION 2. HAZARD IDENTIFICATION

Classification	Not applicable to classification criteria
Nomenclature:	
Hazards:	None
Harmfulness:	No finding available.
Environment Effect:	No finding available
Health Effect:	Prolonged absorption of dust generated during grinding operations may induce pneumoconiosis.
Safety Effect:	Sparks generated during grinder use may cause burn and fire.
Hazards:	Injury or death accidents due to direct attack on the human body of broken and scattered grinding wheel fragments
Physical and Chemical Hazards:	Grinding wheel fragments broken and scattered around during grinding operations, if they strike the human body, may cause serious injury or death.

SECTION 3. COMPOSITION, INFORMATION OR INGREDIENTS

Typical chemical analysis in wt. % (approx.)

Part No.	DEPRESSED CENTRE GRINDING WHEEL TYPE27 (Not Include Hub)				FLAT CUTTING-OFF WHEEL (CHOP SAW) TYPE41	FLEXIBLE WHEEL
	A, WA		C		A	AC
	-741402-9-1	741402-9AP,	741402-B-25	-741425-B-25	- A-93859-25	- 741404-0BP
	-741402-C-25	741407-8-1,	741407-B-25	-741426-B-25	- A-93859-5	- 741404-0CP
	-741413-B-10	741414-B-10,	741415-B-10	-741427-B-25	- B-10849-25	- 741404-0DP
	-741416-B-10	741417-B-10	741421-B-10	- 741428-B-10	- B-10849-5	- 741404-0FP
Material	-741423-B-25	A-80846,	B-14576	- 741429-B-10		
	-B-38510,	B-38526,	B-38532			
Al₂O₃	64.27–71.5			27.29-29.11	61.24-73.32	48.5-59.15

CONTINUED: SECTION 3. COMPOSITION, INFORMATION OR INGREDIENTS

SiO₂	0.09-0.36	0.34-0.35	0.31-0.37	0.25-0.30
Fe₂O₃	0.07-0.14	0.06	0.12-0.15	0.08-0.11
TiO₂	0.48-1.63	0.64-0.68	1.43-1.71	0.85-1.31
Na₂O	0.00-0.03			
Fe		0.08		0.01-0.03
C		0.90-0.96		0.07-0.31
SiC		38.72-40.90		3.11-13.06
Filler	4.77-8.13	4.81-5.02	4.65-9.64	3.15-8.21
Phenolic Resin	15.47-17.03	16.62-17.62	14.45-17.25	17.69-21.02
GF Reinforcement	4.01-8.82	4.82-6.82	4.53-9.11	5.55-11.07
Other	0.87-8.34	0.32-3.27	0.39-0.90	1.92-4.21

SECTION 4. FIRST AID MEASURE

Eye Contact:	If dust enters the eyes, wash the eyes immediately with clean running water. Do not press hard nor rub them. Get medical treatment if necessary.
Skin Contact:	Flush with soapsuds etc. after the end of operations.
Inhalation:	In the case of dust inhalation, remove the victim immediately to a place of fresh air. Gargle (wash) with water. Get medical treatment if necessary.
Ingestion:	Give large amounts of moisture and induce vomiting. Get medical treatment if necessary.

SECTION 5. FIRE FIGHTING MEASURES

Extinguishing Methods:	Choke extinguishing method. (May be incombustible under normal conditions.) Use water, powder, carbon dioxide, foam extinguishers, etc. for early-stage fire. Use water and foam extinguishers to cool and block air for large scale fire. Gases generated under heating contain hazardous substances. Wear respiratory protectors for firefighting.
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SECTION 6. ACCIDENTAL RELEASE MEASURES

No finding available as product.

SECTION 7. HANDLING AND STORAGE

Handling:	(1) Do not drop, (2) do not bump, (3) do not turn over during handling. Before installing on the machine, perform visual tests for grinding wheel crack, breakage, chip, etc. Make sure that maximum operating peripheral speed, dimensions, etc. conform to the machine. Do not use in excess of the maximum operating peripheral speed labeled on grinding wheel. When installing grinding wheel on the flange, use proper flange and do not fasten nuts too tight. Perform correct installation on the flange.
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CONTINUED: SECTION 7. HANDLING AND STORAGE

	<p>When installing on the flange, perform visual checkup without fail and make sure the absence of any abnormality. Perform test runs for 1 minute or more before start of operations for the day and for 3 minutes or more when grinding wheel is installed and/or replaced.</p> <p>Keep the body from direct contact with grinding wheel under rotation.</p> <p>Store in a dry place using pigeonholes etc.</p> <p>Do not store in a place of possible moisture freezing.</p> <p>Use the designated side only. (Prohibit use of the face side.)</p>
Storage:	Absorption of moisture and humidity lowers grinding wheel strength. Store in a dry place of good ventilation avoiding humidity.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Allowable Levels:	Class 2 dust, Inhalable dust = 1 mg/m ³ Total dust = 4 mg/m ³
Control Levels:	2.9 mg/m ³ (as mineral dust) Japan Society of Industrial Hygiene (1990 Edition) ACGIH (1990 Edition) 10 mg/m ³
Installation Measures:	As dust-proof measures, install dust collectors or arrange general exhaust if necessary. Dust collectors may generate and absorb sparks and induce fire. Take measures so that they do not absorb sparks directly
Protectors:	Operators should wear the following protectors without fail. Respiratory protectors ... Dust masks passing national tests. Protective goggles ... Complete protection type dust goggles. Protective gloves ... Spark-proof gloves. Protective clothes ... Work clothes of spark-proof materials. Others ... Soundproof ear plugs, helmets, safety shoes, etc.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colored molded (yellow-brown, black-brown) solid with a slight synthetic resin odor.
Physical State:	Solid with no volatility and sublimation
Boiling Point:	-
Vapor Pressure:	- kPa (20°C)
Volatility:	-
Ignition Point:	No spontaneous ignition
Flash Point:	Flame resistant
Melting Point:	-
Density:	-
Decomposition Point:	- 300°C or over (hardened phenol resin product)
Decomposition Temperature:	300°C or over (hardened phenol resin product)
Solubility:	-

CONTINUED: SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Odor:	-
Others:	-
pH and its Levels:	Solid, not applicable
Alkali Resistance:	Strength degradation is accelerated by alkaline grinding fluid.

SECTION 10. STABILITY AND REACTIVITY

Oxidization:	None
Explosiveness:	None
Flammability:	None
Dust Explosiveness:	None
Stability:	Stable in the air
Reactivity:	Stable in the air
Conditions to Avoid:	High temperature, high humidity

SECTION 11. TOXICOLOGICAL INFORMATION

Skin Corrosiveness:	No finding available.
Irritability:	No finding available.
Sensitivity:	No finding available.
Acute Toxicity:	No finding available.
Chronic Toxicity:	No finding available.
Carcinogenicity:	No finding available.
Mutagenicity:	No finding available.
Reproductive Toxicity:	No finding available.
Teratogenicity:	No finding available.
Others:	No finding available.
Local Effect:	Nothing particular

Prolonged inhalation of dust generated during grinding operations may induce pneumoconiosis.

SECTION 12. ECOLOGICAL INFORMATION

Decomposition:	No finding available.
Accumulation:	No finding available.
Ichthyotoxicity:	No finding available.
Residue/Decomposition:	No data available
Bioaccumulation:	No data available
Possible Environment Effect:	Grinding wastes (including dust and mist) are discharged in trace amount during cutting, grinding, etc.

SECTION 13. DISPOSAL CONSIDERATIONS

Dispose of wastes in accordance with applicable regulations. (Follow national, prefectural and regional laws and regulations.) Specify the contents and commission the disposal with licensed industrial waste disposers. Classified as "glass wastes and pottery wastes". Dispose as industrial wastes.

SECTION 14. TRANSPORT INFORMATION

Take care to avoid water soaking and packing case damage.

Place in boxes resistant to some degrees of pressure and shock.

Avoid rough handling to prevent grinding wheel from breakage.

Transport free from turnover, fall, other impact, etc.

"Fragile". Avoid dumping and impact such as fall.

Inform the manufacturer or user when abnormal impact, force, etc. have supposedly been added.

International Regulation: None

UN classification: None

UN No.: None

Domestic Regulation: None

SECTION 15. REGULATORY INFORMATION

Industrial Safety and Health Law, Industrial Safety and Health Law Regulation

Industrial Safety and Health Law Enforcement Ordinance

Industrial Safety and Health Law, Specific Chemical Substance Injury Prevention Regulation

Industrial Safety and Health Law, Lead Poisoning Prevention Regulation

Dust Injury Prevention Regulation

Safety and Hygiene Special Education Regulation

Grinding Machine Etc. Structure Standards

Fire Service Law

SECTION 16. OTHER INFORMATION

References: Of the descriptions, figures for contents, physical and chemical properties, etc. are not guaranteed figures. While hazards and harmfulness assessment have been prepared based on materials, information data, etc. available as of the date hereof, all materials have not been covered. Sufficient caution is recommended for handling.