



Safety Data Sheet Resin Bonded Abrasive Products

1. IDENTIFICATION

Product identifier: Resin Bonded Abrasive Products
Trade Name: Grinding Wheels Electrolytic & Honing Stones

Manufacturer: Carborundum Grinding Wheel Company,
1011 East Front Street,
Logan, Ohio 43138

Phone Number: (740) 385-2171
Fax Number: (740) 385-2175

2. HAZARD(S) IDENTIFICATION

As sold, this product is a manufactured article. During processing, dust generated has the following hazards:

Physical	Health	Environmental
Not Hazardous	Eye Irritant Category 2 Specific Target Organ Toxicity - Repeated Exposure Category 3 Specific Target Organ Toxicity – Repeat Exposure Category 1	

Hazards not otherwise classified: None

Symbol(s)



Signal word
Danger!

Hazard statement(s)

H319 Causes serious eye irritation
H335 May cause respiratory irritation
H372 Causes damage to respiratory
Tract through prolonged or repeated
Inhalation

Precautionary statement(s)

P260 Do not breathe dust.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in well ventilated area
P280 Wear eye protection.
P314 Get medical attention if you feel unwell.
P305+P351+P338 IF IN EYES: Rinse cautiously with water
for several minutes. Remove contact lenses, if present and
easy to do so. Continue rinsing.
P304+P340 IF INHALED: Remove person to fresh air and
keep comfortable for breathing.
P312 Call in POISON CENTER or doctor if you feel unwell
P308+P313 IF exposed or concerned: Get medical attention.

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3. COMPOSITION / INFORMATION OF INGREDIENTS

Mixtures:

Chemical Name	CAS No.	Concentration
Aluminum Oxide	1344-28-1	<=95
Silicon Carbide	409-21-2	<=95
Zirconium Oxide	NA	<=50
Iron Pyrites	12068-85-8	<=33.2
Garnet	1302-62-1	<=20
Fibrous Glass	NA	<=16
Cryolite	15096-52-3	<=7.9
Potassium Sulfate	7778-80-5	<=7.2
Cured Rubber	NA	<=25
Phenol Formaldehyde Polymer	9003-35-4	<=22
Calcium Carbonate	471-34-1	<=15
Barium Sulfate	7727-43-7	<=5.1
Copper Powder	7440-50-8(2,4)	<=65
Sulfur	7704-34-9	<=6
Calcium Oxide	1305-78-8	<=3
Potassium Fluoroborate	14075-53-7	<=2.5
Fluorspar	7789-75-5	<=2.5
Woolastonite	13983-17-0	<=1.5
Magnesium Oxide	1309-48-4	<=2
Feldspar	68476-25-5	<=1.1
Graphite	12269-78-2	<=1.1

The specific identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST- AID MEASURES

Inhalation: If exposed to dust from grinding: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical attention if breathing is difficult or irritation persists.

Skin contact: Wash dust from skin with soap and water. Launder contaminated clothing before reuse.

Eye contact: Do not rub. Flush eyes thoroughly with plenty of water, holding eyelids open. Get medical attention if irritation develops or persists. Obtain immediate medical attention for foreign body in eye.

Ingestion: If grinding dust is swallowed, seek medical attention.

Most important symptoms/effects, acute and delayed: Eye and skin contact with grinding dust may cause mechanical irritation. Prolonged exposure to grinding dust may cause respiratory problems or aggravate existing conditions. Inhalation during grinding can cause coughing and shortness of breath. Consideration should also be given to the airborne concentration of the material being ground.

Indication if immediate medical attention and special treatment, if necessary: Immediate medical attention is generally not required.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: Use any media that is appropriate for the surrounding fire.

Specific hazards arising from the chemical: This product is not combustible; however, consideration must be given to the potential fire or explosion hazards from the base material being processed. Many materials create flammable or explosive dusts or turnings when machined or ground.

Special protective equipment and precautions for fire-fighters: Firefighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear appropriate respirator and protective clothing as needed to avoid eye contact and inhalation of dust.

Environmental precautions: Avoid contamination of water supplies and environmental releases. Report spills as required to authorities.

Methods and materials for containment and clean up: Carefully collect dry material, avoiding the creation of airborne dust. Place in suitable container for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid breathing dust. Use with adequate ventilation. Avoid eye and skin contact with grinding dust. Wear suitable gloves, eye protection and appropriate protective clothing according to operation. Wash thoroughly after handling. Consider potential exposure to components of the base materials or coatings being ground. Refer to OSHA's substance specific standards for additional work practice requirements where applicable.

Conditions for safe storage, including any incompatibilities: Store in accordance with ANSI B7.1. Protect abrasives wheels from damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

Aluminum Oxide	15 mg/m3 TWA ASHA PEL (total dust) 5mg/m3 TWA OSHA PEL (respirable fraction)
Silicon Carbide	0.1 mg/m3 f/cc(F) TWA ACGIH TLV (including whiskers) 15 mg/m3 TWA OSHA PEL (total dust)
Zirconium Oxide	None Established
Iron Pyrites	Not Established
Garnet	None Established
Fibrous Glass	None Established
Cryolite	None Established
Potassium Sulfate	None Established
Cured Rubber	Not Established
Phenol Formaldehyde Polymer	Not Established
Calcium Carbonate	15 mg/m3 TWA OSHA PEL (total dust) 5mg/m3 YWA OSHA PEL (respirable fraction)
Barium Sulfate	5mg/m3 TWA ACGIH TLC (inhalable) 15mg/m3 TWA OSHA PEL (total dust) 5mg/m3 TWA OSHA PEL (respirable fraction)
Potassium Fluoroborate	None Established
Fluorspar	None Established
Woolastonite	None Established
Sulfur	Not Established
Graphite	2mg/m3 TWA ACGIH TLV (respirable) 15 mppcf mg/m3 TWA OSHA PEL (based on impinger samples counted by light field technologies)
Calcium Oxide	2 mg/m3 TWA ACGIH TVL 5 mg/m3 TWA OSHA PEL
Magnesium Oxide	10 mg/m3 TWA ACGIH TLV (inhalable) 15 mg/m3 TWA OSHA PEL (total particulate)

Appropriate engineering controls: Use local exhaust or general ventilation as required to minimize exposure to dust and maintain the concentration of contaminants below the TLVs.

Individual protection measures, such as personal protective equipment:

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Respiratory protection: Use NIOSH approved respirator if exposure limits are exceeded or where dust exposures are excessive. Consider the potential for exposure to components of the base material or coating being ground in selecting proper respiratory protection. Refer to OSHA's specific standards for lead, cadmium, etc. where appropriate. Selection of respiratory protection depends on the contaminate type, form and concentration. Select and use respirators in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin protection: Cloth or leather gloves recommended.

Eye protection: Safety goggles or face shield over safety glasses with side shields.

Other: Protective clothing as needed to prevent contamination of personal clothing. Hearing protection may be required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Solid Wheel or stone of various colors

Odor: No odor.

Odor threshold:	Not Applicable	pH:	Not applicable
Melting point/freezing point:	Not applicable	Initial boiling point and boiling range:	Not applicable
Flash point:	Non-Combustible	Evaporation rate:	Not applicable
Flammability (solid, gas):	Not applicable	UEL:	Not applicable
Flammable limits: LEL:	Not applicable	Vapor density:	
Vapor pressure:	Not applicable	Solubility(ies):	Very slightly
Relative density:	Not applicable	Auto-ignition temperature:	Not applicable
Partition coefficient:	Not applicable	Viscosity:	Not applicable
n-ctanol/water			
Decomposition temperature:	Not applicable		

10. STABILITY AND REACTIVITY

Reactivity:	Not reactive
Chemical stability:	Stable
Possibility of hazardous reaction:	Will not occur
Conditions to avoid:	None known
Incompatible materials:	Strong acids and bases
Hazardous decomposition products:	Dust from grinding could contain ingredients listed in Section 3 and other, potential more hazardous components of the base material being ground or coatings to base material.

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure:

Inhalation:	May cause respiratory tract irritation with coughing, mucous production and shortness of breath.
Indigestion:	None expected under normal conditions. Swallowing pieces may cause obstructions of the gastrointestinal tract.
Skin contact:	None expected under normal use conditions. Rubbing product across the skin may cause mechanical irritation or abrasions.
Eye contact:	Contact with dust particles may cause abrasive injury to the eyes.

Chronic effects from short-term and long-term exposure: Long-term overexposure to respirable dust may cause lung damage (fibrosis) with symptoms of coughing, shortness of breath and diminishing breathing capacity. Chronic effects may be aggravated by smoking. Prolonged exposure to elevated noise levels during operation may effect hearing. A greater hazard, in most cases, is the exposure to the dust/fumes from the material or coatings being ground. Most of the dust generated during grinding is from the base material being ground and the potential hazard from this exposure must be evaluated.

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Numerical measures of toxicity: This product and its components are not acutely toxic.

Potassium Sulfate: Oral rat LD50 > 2000mg/kg, dermal rat LD50 > 2000 mg/kg
 Barium Sulfate: Oral rat LD50: 307000 mg/kg
 Fluorspar: Inhalation rat LC50 > 5.07 mg/L
 Sulfur: Oral rat LD50 > 2000mg/kg, inhalation rat LC50 > 5.43 mg/L, dermal rat LD50 > 2000 mg/kg
 Graphite: Oral rat LD50 > 2000 mg/kg, inhalation rat LC50 > 2 mg/L

Carcinogenicity: This product contains carbon black which is listed by IARC as a suspected carcinogen (Group 2B). Carbon black only presents a risk of cancer by inhalation of very fine dust. In this product, the carbon black is bound in a polymer matrix and is not present as a respirable dust. None of the other components of this product is listed as a carcinogen by IARC, NTP, US OSHA or European CLP.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Potassium Sulfate: Pimephales promelas LC50: 680 mg/L/96 hr
 Barium Sulfate: Danio rerio LC50 > 3.5-174 mg/L/96 hr
 Sulfur: Oncorhynchus mykiss NOEC > 5ug/L/96hr
 Graphite: Danio rerio LC50 > 100 mg/L/96 hr

Persistence and degradability: Biodegradation is not applicable to inorganic compounds.

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

Other adverse effects: No data available.

13 DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable local, state/provincial and federal regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

14 TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard	Packing Class	Environmental Group	Hazard
DOT	None	Not Regulated		None	None	None
TDG	None	Not Regulated		None	None	None

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in package form.

Special precautions: None identified.

15. REGULATORY INFORMATION

SARA Section 311-312 Hazard Categories: Not Applicable (manufactured articles)

SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CRF Part 372 (Toxic Chemical Release Reporting):

Components	C.A.S. #	WT%
None		

California Proposition 65: WARNING You create dust when you cut, sand, drill or grind materials such as wood, paint, cement, masonry or metal. This dust often contains chemicals known to cause cancer, birth defects or other reproductive harm.

Canadian WHMIS Classification: Not a controlled product. This product meets the definition of a “manufactured article” under WHMIS regulations.

This product has been classified under the CPR and this SDS discloses information elements required by the CPR.

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16. OTHER INFORMATION

NFPA Rating: Health = 0 Flammability = 0 Instability = 0
HMIS Rating: Health = 1* Flammability = 0 Physical Hazard = 0
*Chronic health hazard

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The information and recommendations set forth are taken from sources believed to accurate. Carborundum Grinding Wheel Company, makes no warranty with respect to the accuracy of this information or the suitability of these recommendations, assumes no liability to any user thereof. It is the responsibility of the user to investigate and understand pertinent sources of information to comply with all laws and procedures applicable to the safe use and handling of the product and to determine the suitability of the product for its intended use.