

SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION

Product Identifier: Reinforced Resin Bonded Abrasive Products
Manufacturer Name: Bullard Abrasives, Inc.
Address: 6 Carol Drive
Lincoln, Rhode Island 02865
Phone: 800.227.4469
Fax: 401.333.3077
Recommended Use: Cutting and/or Grinding
Restrictions On Use: Dangerous, improper use may cause wheel breakage and serious injury. Do not abuse, over speed or drop wheel. Safe to use only if mounted, guarded and operated according to ANSI B7.1 and OSHA Regulations. Read safety tips in package. Always use a guard!

SECTION 2 - HAZARD(S) IDENTIFICATION

Hazard Status: This product Is classified as non-hazardous under OSHA Hazard Communication Standard, 29 CFR 1910.1200
Label elements: Not applicable
Pictograms: Not applicable
Description of Hazard(s): Respiratory: Wheel dust is a respiratory irritant
Skin: Wheel dust and fiberglass reinforcement is a skin irritant
Ingestion: Acute product toxicity unknown
Eyes: Wheel dust is an eye irritant
Chronic: Potential chronic effects include skin sensitization and restricted breathing
Wear respirator, eye protection and protective clothing when using product.
Product will produce sparks and debris when in use, never use this product near reactive or flammable substances
Never use product if it comes in contact with water
Supplemental Labeling: Prolonged exposure to elevated noise levels during operations may affect hearing. A greater hazard, in most cases, is the exposure to the dust/fumes from the material or paint/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. This dust may present a fire or dust explosion hazard and may present a serious health hazard.

SECTION 3 - COMPOSITION

Chemical Name	Formula	CAS#	MAX % WT. **
Aluminum Oxide	Al ₂ O ₃	1344-28-1	0 - 80
Silicon Carbide	SiC	409-21-2	0 - 75
Zirconium Oxide	ZrO ₂	1314-23-4	0 - 75
Cured Phenolic Resin	N/A	N/A	10 - 30
Calcium Oxide	CaO	1305-78-8	0 - 10
Iron Pyrite	FeS ₂	12068-85-8	0 - 20
Potassium Fluoborate	KBF ₄	14075-53-7	0 - 10
Graphite	C	7782-42-5	0 - 5
Fluorspar	CaF ₂	7789-75-5	0 - 10
Barium Sulfate	BaSO ₄	7727-43-7	0 - 10
Calcium Carbonate	CaCO ₃	471-34-1	0 - 10
Alkali Aluminum Fluorides	Various	60304-36-1 / 15096-52-3	0 - 15
Potassium Sulfate	K ₂ SO ₄	7778-80-5	0 - 10
Fiberglass	N/A	65997-17-3	0 - 5

**The exact percentage (concentration) of the composition has been withheld as a trade secret.

SECTION 4 - FIRST-AID MEASURES

Required Treatment:	<p>Eyes: Remove contact lenses if present. Flush eyes thoroughly with large amounts of water, holding eyelids open. If irritation persists, seek medical attention.</p> <p>Skin: Wash skin with soap and water. If irritation or other symptoms develop, seek medical attention.</p> <p>Ingestion: Do not induce vomiting. Rinse mouth with water. Seek medical attention if large amount is swallowed or if you feel unwell.</p> <p>Inhalation: Move to fresh air. If breathing is difficult, have qualified personnel administer oxygen. Seek medical attention if irritation or other symptoms persist.</p>
Symptoms – Effects, Acute Delayed:	<p>Dust may cause eye and respiratory irritation. Prolonged inhalation of high concentration of dust may cause adverse effects on the lungs. Contains titanium dioxide. Prolonged overexposure to respirable dust may increase the risk of lung cancer. Risk of cancer depends on duration and level of exposure. Exposure to dust generated from processing the base material or coatings may present additional health hazards.</p>

SECTION 5 - FIRE-FIGHTING MEASURES

Extinguishing Techniques including Equipment:	<p>Use any media that is suitable for the surrounding fire. Do not use water on fires involving metals dusts. Use an appropriate dry powder.</p> <p>Firefighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus.</p>
Chemical Hazards from Fire:	<p>These products are not flammable or combustible; however, consideration must be given to the potential fire/explosion hazards from the base material being processed. Many materials create flammable/explosive dusts or turnings when machined or ground.</p>

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Emergency Procedures:	Environmental: Avoid contamination of water supplies and environmental releases. Report spills as required by authorities.
Protective Equipment:	Wear appropriate respirator and protective clothing as needed to avoid eye contact and inhalation of dust.
Methods of Containment and Clean-Up:	Collect dry material, avoiding creating airborne dust. Place in a suitable container for disposal.

SECTION 7 - HANDLING AND STORAGE

Handling:	Inspect wheel prior to mounting on machine for damage. Do not use at speeds greater than product maximum rates per minute (rpm) as indicated. Use with adequate ventilation. Avoid breathing dust. Avoid eye and skin contact with grinding dust. Wear suitable eye protection, gloves and appropriate protective clothing. Wash thoroughly after handling. Consider potential exposure to components of the base materials or coatings being ground or cut. Refer to OSHA substance specific standards for additional work practice requirements where applicable.
Storage:	No special storage required. Avoid excessive temperatures in storage. Store in a dry area.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	OSHA PEL respirable	OSHA PEL total dust	ACGIH TLV
Aluminum Oxide	5 mg/m ³	15 mg/m ³	10 mg/m ³
Silicon Carbide	5 mg/m ³	15mg/m ³	3 mg/m ³
Zirconium Oxide	5 mg/m ³	N/A	10 mg/m ³
Cured Phenolic Resin	None Established	None Established	None Established
Calcium Oxide	5 mg/m ³	N/A	2 mg/m ³
Iron Pyrite	None Established	None Established	None Established
Potassium Fluoborate	2.5 mg/m ³	N/A	2.5 mg/m ³
Graphite	5 mg/m ³	15 mg/m ³	2 mg/m ³
Fluorspar	2.5 mg/m ³	N/A	2.5 mg/m ³
Barium Sulfate	5 mg/m ³	15 mg/m ³	5 mg/m ³
Calcium Carbonate	5 mg/m ³	10 mg/m ³	10 mg/m ³
Alkali Aluminum Fluorides	2.5 mg/m ³	N/A	2.5 mg/m ³
Potassium Sulfate	15 mg/m ³	N/A	10 mg/m ³
Fiberglass	5 mg/m ³	15 mg/m ³	5 mg/m ³

Ventilation:	Engineering controls recommended. See ANSI Z43.1. Refer to OSHA 29 CFR 1910.94.
Respiratory:	OSHA/NIOSH approved respirator. See OSHA 29 CFR 1910.134
Eye Protection:	Protective eyewear such as safety goggles, safety glasses or face shield is recommended. See OSHA 29 CFR 1910.133.
Protective Gloves:	Leather gloves.
Hearing Protection:	Hearing protection such as earplugs or approved earmuffs. Refer to OSHA 29 CFR 1910.95.
Body/Skin Protection:	Leather apron, fire retardant jacket/shirt/lab coat to shield from heavy spark showers in operation.
Other Protections/Precautions:	Visually inspect all wheels before mounting for possible damage. Do not operate above maximum operating speed. Always use a guard. Refer to ANSI B7.1 for <u>Safety Requirements for the Use, Care and Protection of Abrasive Wheels</u> .

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark colored, solid bonded wheel.	Solubility in water:	Insoluble
Odor:	None, faint phenolic odor	Boiling Point:	N/A
Flammability or Explosive Limits:	Not flammable	Flash Point:	Not flammable
Vapor Pressure:	N/A	Evaporation Rate:	N/A
Odor Threshold:	N/A	Flammability (solid, gas):	Not flammable
Vapor Density:	N/A	Auto-ignition Temperature:	N/A
pH:	N/A	Decomposition Temperature:	800 °F (425 °C)
Relative Density:	N/A	Viscosity:	N/A
Melting Point/Freezing Point:	N/A		

SECTION 10 - STABILITY AND REACTIVITY

Reactivity:	Not reactive under normal conditions of use and storage.
Chemical Stability:	Stable
Hazardous Polymerization:	Will not occur
Other:	Dust from grinding and cutting could contain potentially hazardous components of the base material being ground or coatings applied to the base material.

SECTION 11 - TOXICOLOGICAL INFORMATION

Chemical Name	Route of Exposure	Acute LD50
Aluminum Oxide	Oral	>10000 mg/kg (rat)
Silicon Carbide	Oral	>2000 mg/kg (rat)
Zirconium Oxide	Oral	>5000 mg/kg (rat)
Cured Phenolic Resin	N/A	No acute toxicity data available
Calcium Oxide	N/A	No acute toxicity data available
Iron Pyrite	N/A	No acute toxicity data available
Potassium Fluoborate	Oral	>5000 mg/kg (rat)
Graphite	Oral	>5000 mg/kg (rat)
Fluorspar	Oral	>4000 mg/kg (rat)
Barium Sulfate	Oral	>5000 mg/kg (rat)
Calcium Carbonate	Oral	>5000 mg/kg (rat)
Alkali Aluminum Fluorides	Oral	>5000 mg/kg (rat)
Potassium Sulfate	Oral	>5000 mg/kg (rat)
Fiberglass	N/A	No acute toxicity data available

Routes of Exposure:	Inhalation, skin contact, eye contact and ingestion
Related Symptoms:	Breathing in dust may cause irritation to the nose, throat and upper respiratory tract. May cause abrasive skin irritation. May cause eye irritation and injury. Not toxic if ingested. Swallowing may cause gastrointestinal disturbances or obstructions.
Acute and Chronic Effects:	Prolonged inhalation of respirable dust may cause adverse lung effects, including cancer. Smoking may aggravate chronic effects. Prolonged exposure to elevated noise levels during operations may affect hearing. In most cases, the greater hazard is the exposure to the dust/fumes from the material (paint/coatings) being cut and ground. Most of dust is generated during grinding and cutting of the base material and the potential hazard from this exposure must be evaluated.
Carcinogenicity:	Unknown
Mutagenicity:	Unknown
Reproductive Effects	Unknown

SECTION 12 - ECOLOGICAL INFORMATION*

Data from Toxicity Tests:	No adverse effects on aquatic organisms are expected.
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SECTION 13 - DISPOSAL CONSIDERATIONS*

Proper Disposal Practices:	Disposal practices are in accordance with local, state and national regulations.
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SECTION 14 - TRANSPORT INFORMATION*

Proper Transport of Hazard Material:	Not regulated as a hazardous material for transport.
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SECTION 15 - REGULATORY INFORMATION*

Safety, Health and Environmental Regulations:	No Data Available
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SECTION 16 - OTHER INFORMATION

Date SDS Prepared:	New SDS
Last Revision Completed:	May 12, 2015
Statement of Accuracy:	The above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. Bullard Abrasives, Inc. shall not be held liable for any damage resulting from handling or from contact with the above products. This information relates only to the product designated herein and does not relate to its use in combination with any other material or process.

*Non-Mandatory