

**SAFETY DATA SHEET**  
 Blackstone Supply LLC  
 Resin Bonded Grinding Wheels and Abrasive Products

**1. Identification**

**Product identifier:**

Substance name	Resin Bonded Grinding Wheels and Abrasive Products
Trade Name	Grinding Wheels or Stones
Product description	Aluminum circular core with abrasive on outside or stones

**Name, address, phone number of the manufacturer, importer, or other responsible party, and emergency phone number:**

Name	Blackstone Supply LLC
Address	29059 Fox Hollow Road Eugene, OR 97405
Phone	(888) 460-1518
Fax	(888) 874-6396
E-mail	n/a
Manufacturer / Importer name	Blackstone Supply LLC
Address	29059 Fox Hollow Road Eugene, OR 97405
Phone	(888) 460-1518

**Emergency telephone numbers:**

United States Emergency No.	(888) 460-1518
Emergency telephone available outside office hours	(888) 460-1518 Yes

**Recommended use of the chemical and any restrictions on use:**

Recommended use	Industrial abrasive
Restrictions on use	None known

**2. Hazards Identification**

**Hazard Classification:**

<i>Physical</i>	<i>Health</i>	<i>Environment</i>
Not hazardous	Carcinogen Category 1A Skin Sensitization Category 1 Eye Irritant Category 2 Specific Target Organ Toxicity – Single Exposure	Not Hazardous

	Category 1 Specific Target Organ Toxicity – Repeat Exposure Category 1	
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Hazards not otherwise classified: None

**Signal Word:** Danger! Health Hazard

**Hazard Statements:**

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation

H332 + H351 Harmful if inhaled; Suspected of causing cancer

H335 May cause respiratory irritation

H351 May cause cancer by inhalation

H372 Causes damage to respiratory tract through prolonged or repeated inhalation.

H410 Very toxic to aquatic life with long lasting effects

**Hazard Pictograms:**



**Precautionary Statements:**

P201 Obtain special instructions before use

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust or fume.

P264 Wash thoroughly after handling

P270 Do not eat, drink, or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves, protective clothing, and eye protection.

P314 Get medical attention if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water

P333 + P313 If skin irritation or rash occurs: Get medical attention

P362 + P364 Take off contaminated clothing and wash it before reuse.

P305+P351+P338 If In Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340 If Inhaled: Remove person to fresh air and keep comfortable for breathing

P312 Call a Poison Center or doctor if you feel unwell.

P308+P313 If exposed or concerned: Get medical attention

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up

P501 Dispose of contents in accordance with local, regional, and national regulations

**Percentage of mixture with ingredients of unknown acute toxicity:**

Iron Disulfide < 6%

Titanium Dioxide < 1%

**3. Composition /Information on Ingredients**

**Substances**

<i>Identification Name</i>	<i>Common Name</i>	<i>CAS Number</i>	<i>Concentration Range* – Without Aluminum Core</i>	<i>Concentration Range* – With Aluminum Core</i>
Aluminum	Aluminum	7429-90-5	N/A**	< 100%
Cubic Boron Nitride	CBN	10043-11-5	< 64%	< 18%
Nickel	Nickel	7440-02-0	< 48%	< 13%
Wollastonite	Wollastonite	13983-17-0	< 40%	< 11%
Industrial Diamond	Industrial Diamond	7782-40-3	< 37%	< 11%
Copper	Copper	7440-50-8	< 30%	< 9%
Silicon Carbide	Silicon Carbide	409-21-2	< 95%	< 7%
Cured Resin – Phenol formaldehyde polymer	Resin	9003-35-4	< 25%	< 7%
Fibrous Glass	Fibrous Glass	N/A	< 20 %	< 6%
Aluminum Oxide	Aluminum Oxide	1344-28-1	< 9%	< 3%
Cobalt	Cobalt	7440-48-4	< 8%	< 3%
Powdered Cellulose	Powdered Cellulose	9004-34-6	< 7%	< 2%
Iron Disulfide	Pyrites	12068-85-8	< 6%	< 2%
Graphite	Graphite	7882-42-5	< 4%	< 2%
Titanium	Titanium	7440-32-6	< 4%	< 2%
Fluorides (as F)	N/A	N/A	< 4%	< 2%
Calcium Oxide	Lime	1305-78-8	< 2%	< 1%
Iron Oxide Fume	Iron Oxide	1309-37-1	< 2%	< 1%
Manganese	Manganese	7439-96-5	< 1%	< 0.5%
Titanium Dioxide	Titanium Dioxide	13463-67-7	< 1%	< 0.5%
Minor Oxides	N/A	N/A	< 0.5%	< 0.25%
Phosphorus	Phosphorus	7723-14-0	< 0.5%	< 0.25%

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

\*\*N/A: Not Applicable

#### 4. *First-Aid Measures*

##### **Necessary first-aid instructions by relevant routes of exposure:**

Eyes	Do not rub. Flush eyes thoroughly with plenty of water for 15-20 minutes, holding open eyelids with fingers. Remove contacts if present and able to do so easily. Get medical attention if irritation persists. Obtain immediate medical attention for foreign body in the eye.
Inhalation	If exposed to grinding dust, move victim to fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention if breathing is difficult or irritation persists.
Ingestion	If grinding dust is swallowed, seek medical attention. Not an anticipated route of exposure. If swallowed, rinse mouth with water and drink 1 or 2 glasses of water to dilute. Never give anything by mouth to an unconscious or convulsing person. Get medical attention.
Skin	Immediately wash dust from skin with soap and plenty of water. Launder contaminated clothing before reuse.

##### **Description of the most important symptoms or effects, and any symptoms that are acute or delayed:**

May cause serious eye irritation. Eye and skin contact with grinding dust may cause mechanical irritation. Inhalation of dust may cause dizziness, headache, and other central nervous system effects. Prolonged inhalation of dust or fumes from this product may cause perforation of the nasal septum and lung damage. Exposure to dust generated from processing the base material or coatings may present additional health hazards.

##### **Recommendations for immediate medical care and special treatment needed, when necessary:**

Immediate medical attention is required for eye contact.

#### 5. *Firefighting Measures*

##### **Recommendations of suitable extinguishing equipment, and information about extinguishing equipment that is not appropriate for a particular situation:**

Use any appropriate media for the surrounding fire. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

##### **Advice on specific hazards that develop from the chemical during the fire:**

This product is non-flammable; 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. Toxic metal fumes and oxides are emitted when product is heated when product is heated above the metal point.

**Recommendations on special protective equipment or precautions for firefighters:**

Wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus for firefighting. Contain water used in firefighting from entering sewers or natural waterways.

*6. Accidental Release Measures.*

**Use of personal precautions and protective equipment to prevent the contamination of skin, eyes, and clothing:**

Wear appropriate respirator and protective clothing as needed to avoid eye contact and inhalation of dust. Avoid breathing vapors, mist, or gas.

**Emergency procedures, including instructions for evacuations, consulting experts when needed, and appropriate protective clothing:**

Please see sections 4 and 5 above.

**Methods and material for containment and cleanup procedures:**

Wear protective clothing and PPE. Sweep up and shovel carefully to collect dry material, avoiding the creation of airborne dust. Place in a suitable container for disposal.

**Additional environmental precautions:**

Do not let product enter drains.

*7. Handling and Storage*

**Precautions for safe handling:**

For industrial or professional use only. Damaged product can break apart during use and cause serious injury to face or eyes. Always check product for damage such as cracks or nicks prior to use and replace if damaged. Always check machine speed against the established maximum safe operated speed marked on the wheel.

Avoid contamination of water supplies and environmental releases. Report spills as required to authorities. Do not breathe dust. Use with adequate ventilation. Avoid eye and skin contact with grinding dust. Wear suitable gloves, eye protection and appropriate

protective clothing according to the operation. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Contaminated clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

Combustible dust may form by action of this product on another material (substrate). Dust generated from the substrate during use of this product may be explosive if in sufficient concentration with an ignition source. Dust deposits should not be allowed to accumulate on surfaces because of the potential for secondary explosions.

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.

**Recommendations on the conditions for safe storage, including any incompatibilities:**

Store in accordance with ANSI B7.1. Protect abrasive wheels from damage.

**8. Exposure Controls / Personal Protection**

**Control parameters:**

<i>Component name</i>	<i>OSHA PEL</i>	<i>ACGIH TLV</i>
Aluminum	10 mg/m <sup>3</sup> (total dust); 5 mg/m <sup>3</sup> (respiratory fraction)	1 mg/m <sup>3</sup> (respiratory fraction)
Cubic Boron Nitride (CBN)	15 mg/m <sup>3</sup> (total dust); 5 mg/m <sup>3</sup> (respiratory fraction)	10 mg/m <sup>3</sup> (total dust); 3 mg/m <sup>3</sup> (respiratory fraction)
Nickel	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
Wollastonite	10 mg/m <sup>3</sup>	NAIF
Industrial Diamond	NAIF	NAIF
Copper	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
Silicon Carbide	10 mg/m <sup>3</sup> (total dust); 5 mg/m <sup>3</sup> (respiratory fraction)	3 mg/m <sup>3</sup> (respiratory fraction)
Cured Resin	NAIF	NAIF
Fibrous Glass	None Established	None Established
Aluminum Oxide	10 mg/m <sup>3</sup> (total dust); 5 mg/m <sup>3</sup> (respiratory fraction)	10 mg/m <sup>3</sup>
Cobalt	0.02 mg/m <sup>3</sup>	0.02 mg/m <sup>3</sup>
Powdered Cellulose	15 mg/m <sup>3</sup> (total dust); 5 mg/m <sup>3</sup> (respiratory fraction)	10 mg/m <sup>3</sup> (total dust)

Iron Disulfide	NAIF	NAIF
Graphite	10 mg/m <sup>3</sup> (total dust); 5 mg/m <sup>3</sup> (respiratory fraction)	2 mg/m <sup>3</sup> (respiratory fraction)
Titanium	NAIF	NAIF
Fluorides (as F)	2.5 mg/m <sup>3</sup>	2.5 mg/m <sup>3</sup>
Calcium Oxide	2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>
Iron Oxide Fume	5 mg/m <sup>3</sup> (fume)	5 mg/m <sup>3</sup> (resp.)
Manganese	0.2 mg/m <sup>3</sup>	0.02 mg/ m <sup>3</sup> (resp.) 0.1 mg/ m <sup>3</sup> (IHL) (for elemental and inorganic compounds)
Titanium Dioxide	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
Phosphorus	0.1 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>

**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.

**Recommendations for personal protective measures to prevent illness or injury from exposure to chemicals, including any special requirements for PPE, protective clothing or respirators:**

Eye / face protection	Safety goggles or face shield over safety glasses with side shields such as those approved under appropriate government standards, including NIOSH (US) or EN 166 (EU).
Skin protection	Impervious gloves recommended. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Wear long sleeved shirt and long pants.
Body protection	Choose appropriate body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace.
Respiratory protection	Use NIOSH approved respirator of N95 type or better if exposure limits are exceeded or where dust exposures are excessive. Consider the potential for exposure to components of the coatings or base material 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 contaminant type, form, and concentration. Select and use respirators in accordance with OSHA 1910.134 and good industrial hygiene practice.

Other	Protective clothing as needed to prevent contamination of personal clothing. Hearing protection may be required (see OSHA 29 CFR 1910.134 and other applicable regulations.) Handle in accordance with good industrial hygiene and safety practice. Avoid getting dust into boots and gloves through wrist bands and paint tucks.
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## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties:

Appearance	Solid wheel or stone of various colors.
Upper/lower flammability or explosive limits	Not applicable
Odor	May give off slight odor in use
Vapor pressure	NAIF*
Odor threshold	Not applicable
Vapor density	NAIF
pH	Not applicable
Relative density	Varies
Melting point / freezing point	> 220°C
Solubility in water	Insoluble
Initial boiling point / boiling range	NAIF
Flash point	Non-combustible
Evaporation rate	NAIF
Flammability	Not applicable
Partition coefficient	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
Viscosity	Not applicable

\*NAIF = No Applicable Information Found

## 10. Stability and Reactivity

**Reactivity:** Not reactive under normal use conditions.

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of hazardous reactions:** If nickel powder comes into contact with bromine pentafluoride at ambient or slightly elevated temperatures, ignition will probably occur. Powdered nickel may react violently or explosively with fused ammonium nitrate below 200°C.



**Conditions to avoid:** Keep away from heat, sparks, or open flame.

**Incompatible materials:** None known.

**Hazardous decomposition products:** Dust from grinding could contain ingredients listed in Section 3 and other, potentially more hazardous components of the base material being ground or coatings applied to the base material. Toxic metal fumes and oxides are emitted when product is heated above the metal point.

In the event of fire, see section 5.

### ***11. Toxicological Information***

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

#### **Likely routes of exposure and delayed or immediate effects of short- and long-term exposure, with description of the symptoms:**

**Inhalation:** Dust generated from processing may cause respiratory tract irritation with coughing, sneezing, headache, hoarseness, mucous production, and shortness of breath. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, chest pain, and fatigue and muscle pain.

**Ingestion:** None expected under normal use conditions. Swallowing large pieces may cause obstruction of the gastrointestinal tract.

**Skin:** Dust generated from processing may cause abrasive irritation. May cause allergic skin reaction (sensitization).

**Eye contact:** Contact with dust particles may cause abrasive injury to the eyes. Signs and symptoms may include pain, redness, tearing and corneal abrasion. Dust may cause serious eye irritation. Signs and symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

**Chronic effects from short- and long-term exposure:** Long-term overexposure to respirable dust may cause lung damage (fibrosis) with symptoms of coughing, shortness of breath, diminished breathing capacity, increased heart rate, and bluish colored skin (cyanosis). Prolonged inhalation of nickel dust or fumes may cause perforation of the nasal septum and lung damage. Chronic effects may be aggravated by smoking. 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.

Additional signs and symptoms of hard tissue effects may include color changes in the teeth and nails; changes in the development of bone, teeth, or nails; weakening of the bones; and/or hair loss.

**Numerical measures of toxicity:**

If a component is disclosed in section 3 but does not appear below, either no data are available for that endpoint or the data are not sufficient for classification.

Aluminum: Dermal LD50 estimated >5,000 mg/kg

Nickel: Oral rat LD50 > 9000 mg/kg

Diamond: Oral rat LD50 > 2000 mg/kg, inhalation rat LC50 > 5.2 mg/L, dermal rat LD50 > 2000 mg/kg

Copper: Oral rat LD50 > 2000 mg/kg, inhalation rate LC50 > 2.55 mg/L, dermal rat LD50 > 2000 mg/kg

Silicon Carbide: LD50 > 2,000 mg/kg

Aluminum Oxide: Oral rat LD50 > 2000 mg/kg, Dermal rat LD50 > 2000 mg/kg, inhalation 200 mg/m<sup>3</sup>/5H/28W (Intermittent)

Powdered Cellulose: Oral Rat LD50 > 5 g/kg

Graphite: Oral rat LD50 > 2000 mg/kg, inhalation rat LC50 > 2 mg/L

Titanium: Dermal and ingestion LD50 estimated > 5,000 mg/kg

Inorganic fluoride: LD50 > 2,100 mg/kg

Calcium Oxide: Oral rat LD50 > 2000 mg/kg, dermal rabbit LD50 > 2500 mg/kg

**Carcinogenicity:** Contains a chemical or chemicals which can cause cancer.

<i>Ingredient</i>	<i>CAS No.</i>	<i>Class Description</i>	<i>Regulation</i>
Nickel Compounds	7440-02-0	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
Silicon Carbide	409-21-2	Grp 2A: Probable human carcinogen	International Agency for Research on Cancer
Cobalt	7440-48-4	Grp 2B: Possible human carcinogen.	International Agency for Research on Cancer
Titanium Dioxide	13463-67-7	Grp 2B: Possible human carcinogen.	International Agency for Research on Cancer

## 12. Ecological Information

### Ecotoxicity:

Diamond: Oncorhynchus mykiss LC50 > 100 mg/L/96 hr

Nickel: Oncorhynchus mykiss LC50: 15.3 mg/L/96 hr, Pimephales NOEC 0.057 mg/L/32 days

Copper: Oncorhynchus mykiss LC50: 0.19 mg/L/96 hr

Calcium Oxide: Oncorhynchus mykiss LC50: 50.6 mg/L/96 hr

This product is classified as very toxic to aquatic life with long lasting effects.

Graphite: Danio rerio LC50 > 100 mg/L/96 hr

Silicon Carbide: No data available.

Aluminum Oxide: NOEC Salmo trutta >100 mg/L/96 hr; NOEC daphnia magna >100 mg/L/48 hr; NOEC Selenastrum capricornutum > 100 mg/L/72 hr

Titanium Dioxide: EC50 Pseudokirchnerella subcapitata 61 mg/L/72 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

Avoid contamination of water supplies and environmental releases. 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

	<i>UN Number</i>	<i>UN Proper shipping name</i>	<i>Hazard Class</i>	<i>Packing Group</i>	<i>Environmental Hazard</i>
<i>DOT</i>	None	Not Regulated	None	None	None

<i>TDG</i>	None	Not Regulated	None	None	None
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*IMDG*: Not dangerous goods

*IATA*: Not dangerous goods

**Transport in bulk (according to Annex II or MARPOL 73/78 and the IBC Code):**

Not applicable – product is transported only in packaged form.

**Special precautions:** None identified.

***15. Regulatory Information***

**U.S. Environmental Protection Agency (EPA) Emergency Planning and Community Right-to-Know Act (EPCRA) Section 311/312 Hazard Categories:**

N – Fire Hazard

N – Sudden Release of Pressure

N – Reactivity

N – Acute Health

Y – Chronic Health

**U.S. Environmental Protection Agency (EPA) Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313:** This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the U.S. Environmental Protection Agency (EPA) Emergency Planning and Community Right-to-Know Act (EPCRA):

<i>Components</i>	<i>C.A.S.#</i>
Nickel	7440-02-0
Copper	7440-50-8
Cobalt	7440-48-4
Phosphorus	7723-14-0
Aluminum Oxide	1344-28-1
Manganese	7439-96-5
Chromium Oxide	1308-38-9
Aluminum	7429-90-5

**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.

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

**EPA TSCA Inventory:** This product meets the definition of an article and exempt from TSCA inventory requirements.

***16. Other Information***

**NFPA Rating:** Health = 1

Flammability = 0

Reactivity = 1

**HMIS Rating:** Health = 1\*

Flammability = 0

Physical Hazard = 0

\*Chronic health hazard

Date of revision: 06/21/2016

Note: Blackstone Supply offers non-coated and cooper-coated superabrasive alternatives to their nickel-coated counterparts. Contact your distributor to inquire about purchasing such products.

This information and recommendations in this document are taken from sources believed to be accurate. Blackstone Supply 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.