

BULLARD ABRASIVES, INC.
50 HOPKINTON RD. P.O. BOX 1270, WESTBOROUGH, MA 01581
TELEPHONE (508)366-4300, FAX (508)366 5232

CATEGORY 1
MATERIAL SAFETY DATA SHEET
(Complies with OSHA 29 CFR 1910.1200)

Section 1.0 IDENTIFICATION

1.1 Products: Aluminum oxide grinding and cut-off wheels, organic bonded (See attached list of product numbers for category 1)

1.2 Manufacturer or Distributor

Bullard Abrasives, Inc.
50 Hopkinton Rd.
Westboro, MA 01581

1.3 Contact: Kenneth Maranda, Operations Manager

1.4 Phone No. 508-366-4300 Office
508-366-5232 Fax

1.5 Prepared By: Newton Assoc. in Engrg., Inc.
4 Sam Hill Rd.
Worthington, Mass. 01098
Phone: 413-238-5925

1.6 Date Prepared: 9/14/93

Section 2.0 HAZARDOUS INGREDIENTS

2.1 ABRASIVE

COMMON NAME	CHEMICAL NAME	CAS NO.	OSHA PEL mg/m3	ACGIH TLV mg/m3	CARCINOGEN Y/N
Alpha Alumina	Aluminum oxide	1344-28-1	15	10	N
Cryolite	Sodium aluminum fluoride	15096-52-3	2.5	2.5	N
Almandite	Ferric aluminum silicate	1302-62-1	10	NAIP	N
Zirconia	Zirconium dioxide	7440-67-7	5	5	N
Zircon	Zirconium silicate	7440-67-7	5	5	N

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2.2 Binder System

COMMON NAME	CHEMICAL NAME	CAS NO.	OSHA PEL mg/m3	ACGIH TLV mg/m3	CARCINOGEN Y/N
Resin	Phenol-formaldehyde (PNOR)	9003-35-4	15	10	N
Line	Calcium oxide	1305-78-8	5	2	N
Carbon black	Carbon	1333-86-4	3.5	3.5	N
-	Iron oxide	1309-37-1	10	5	N
-	Titanium dioxide	13463-67-7	15	10	N
Wax	Parafin wax	8002-74-2	2	2	N

2.3 Reinforcing

Fiberglass fabric mesh	Amorphous silica	65997-17-3	15	10	N
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Section 3.0 PHYSICAL CHARACTERISTICS

3.1 Boiling Point:	N/A
3.2 Vapor Pressure:	N/A
3.3 Vapor Density:	N/A
3.4 Specific Gravity:	Greater than 1
3.5 Solubility in Water:	Insoluble
3.6 Melting Point:	N/A
3.7 Evaporation Rate:	N/A
3.8 Appearance & Odor:	

Formed solid with little or no odor. Some odor may be produced in use.

Section 4.0 FIRE AND EXPLOSION HAZARD

4.1 Flash Point:	N/A
4.2 Flammable Limits:	N/A
4.3 Extinguishing Media:	N/A
4.4 Fire Fighting Procedures:	N/A
4.5 Unusual Fire & Explosion Hazards:	None

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Section 5.0 REACTIVITY DATA

- 5.1 Stability: Fully Stable
- 5.2 Condition to Avoid: None
- 5.3 Materials to Avoid: Strong Acids
- 5.4 Hazardous Decomposition or By-Products:

This product will not decompose. Dusts are generated while in use which will consist of degradation products from the wheel and from the work piece.

Section 6.0 HEALTH HAZARD DATA

6.1 Routes of Entry:

The principal routes of entry are inhalation, ingestion, eyes & skin.

6.2 Inhalation:

Regular exposure to grinding dusts may cause respiratory problems, mucous membrane irritation, or aggravate pre-existing conditions. Prolonged exposure to fluorides may cause skeletal or dental fluorosis. Prolonged exposure to silica may cause silicosis or cancer but no reports of definitive test results showing that these health problems have been caused by grinding wheel dusts have been found.

6.3 Ingestion

Ingestion is unlikely and is not recommended but no adverse affects are known.

6.4 Eye contact

Dusts may irritate the eyes. If irritation occurs, flush the eyes with water and obtain medical attention.

6.5 Skin Contact

Prolonged dust exposure may cause skin irritation. If this occurs, wash with soap and water and obtain medical attention.

Section 7.0 HANDLING PROCEDURES

- 7.1 Handle and store with care to prevent breakage or crushing.
- 7.2 If dropped or spilled, inspect carefully to detect and remove cracked or broken pieces.
- 7.3 Clean-up using normal housekeeping methods.
- 7.4 Dispose of broken items and pieces to the applicable landfill in conformance with state or local regulations.

Section 8.0 CONTROL MEASURES

8.1 Ventilation

Use in a well ventilated area. Additional local exhausts are recommended to keep dust concentrations below the permissible levels.

8.2 Respiratory

NIOSH approved respirators may be required in some areas.

8.3 Protective Clothing & Equipment

Goggles or safety glasses with side shields are recommended. Long sleeved shirts should be worn during grinding. Aprons, face shields and gloves may be worn as desired.

Section 9.0 SPECIAL PRECAUTIONS

- 9.1 Avoid breathing grinding dust.
- 9.2 Avoid skin and eye contact with grinding dust.
- 9.3 Wear ear plugs or muffs while grinding.
- 9.4 Refer to ANSI B7.1 for additional precautions relative to handling, storage, and safe use of abrasive wheels.

Section 10.0 (SEE ATTACHED PRODUCT LISTING)