

MATERIAL SAFETY DATA SHEET

Product Identity / Trade Name: Grinding and Cutting Wheels, Resinoid (Type 1, Type 27, Type 28, Type 29)
Cup Wheels (Type 11) Cones and Plugs (Type 16, Type 17 and Type 18), Mounted
Points, UA-MTX, UA-GFX, A36F, A54F.

Manufacturer: United Abrasives, Inc.
P.O. Box 75, Route 66, Willimantic, CT 06226

MSDS Date of Preparation: November 3, 2000

Information Phone: (860) 456-7131 Emergency Phone: (860) 456-7131

2. COMPOSITION:

Hazardous Component	CAS #	OSHA PEL	ACGIH TLV	%
Aluminum Oxide	1344-28-1	15 mg/m3*	10 mg/m3	0-70
and/or Silicon Carbide	409-21-2	15 mg/m3*	10 mg/m3	0-70
and/or Zirconium Oxide	1314-23-4	5 mg/m3	5 mg/m3	0-30
and/or Cubitron	N/A	None Established	None Established	0-20
and/or Titanium Dioxide	13463-67-7	15 mg/m3*	10 mg/m3	0-5
Cured Phenolic Resin	N/A	None Established	None Established	5-20
and/or Woven Fiberglass	N/A	15 mg/m3*	5 mg/m3**	0-20
and/or Calcium Carbonate	1317-65-3	15 mg/m3*	10 mg/m3	0-2
and/or Calcium Oxide	1305-78-8	5 mg/m3	2 mg/m3	0-5
and/or Barium Sulfate	7727-43-7	15 mg/m3*	10 mg/m3	0-5
and/or Sulfur	7704-34-9	None Established	None Established	0-5
and/or Zinc Sulfide	1314-98-3	None Established	None Established	0-5
and/or Magnesium Oxide	1309-48-4	15 mg/m3*	10 mg/m3	0-5
and/or Iron Oxide	1309-37-1	5 mg/m3	5 mg/m3	0-5
and/or Graphite	7782-42-5	15 mg/m3*	2 mg/m3**	0-5
and/or Iron Pyrite	12068-85-8	None Established	None Established	0-20
and/or Carbon Black	1333-86-4	3.5 mg/m3	3.5 mg/m3	0-3
and/or Cryolite (as fluorides)	15096-52-3	2.5 mg/m3	2.5 mg/m3	1-10
and/or Potassium Fluoroborate (as fluorides)	14075-53-7	2.5 mg/m3	2.5 mg/m3	0-5

*Total Dust

**Respirable Particulate

The Permissible Exposure Limits (PEL) reported above are the pre-1989 limits that were reinstated by OSHA following a decision by the 11th Circuit Court of Appeals. These PELs are being enforced by Federal OSHA. Be aware that more restrictive exposure limits may be enforced by some states. United Abrasives Inc. recommends that the lower exposure limits be observed as reasonable worker protection.

3. HEALTH HAZARD DATA:

Acute Effects of Overexposure: Dust may cause eye and respiratory irritation. Dust particles may cause abrasive injury to the eyes.

Chronic Effects Of Overexposure: Long-term overexposure to respirable dust may cause lung damage (fibrosis) with symptoms of coughing, shortness of breath and diminished breathing capacity. 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.

Medical Conditions Aggravated by Exposure: Chronic respiratory disease.

Primary Route(s) of Exposure: Inhalation

Listed Carcinogen: None of the components is listed as a carcinogen or potential carcinogen by OSHA, NTP or IARC.

4. FIRST AID:

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

Inhalation: If overexposed to grinding dust, remove victim to fresh air and get medical attention.

Eye Contact: Flush eyes thoroughly with water, holding open eyelids. Get medical attention if irritation persists. Obtain immediate medical attention for foreign body in the eye.

Skin Contact: Wash dust from skin with soap and water.

5. FIRE AND EXPLOSION HAZARD DATA:

Flash Point: Non-Combustible Flammable Limits: LEL: N/A UEL: N/A

Extinguishing Media: Use any media that is appropriate for the surrounding fire.

Special Firefighting Procedures: None needed.

Unusual Fire and Explosion Hazards: This product is not 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.

Hazardous Combustion Products: None known.

6. ACCIDENTAL RELEASE MEASURES:

Pick up, sweep up or vacuum and place in a container disposal. Minimize generation of dust. Notify authorities as required by local, state and federal regulations.

7. HANDLING AND STORAGE:

Recommended Work Practices: Use only with adequate ventilation. Avoid breathing dust. Wash thoroughly after handling and use, especially before eating, drinking or smoking. Refer to ANSI B7.1, Safety Requirements for the Use, Care and Protection of Abrasive Wheels for additional information.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

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

Respiratory Protection: Use NIOSH approved respirator if exposure limits are exceeded or where dust exposures are excessive. 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.

Gloves: Cloth or leather gloves recommended.

Eye Protection: Safety goggles or face shield.

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

9. PHYSICAL AND CHEMICAL PROPERTIES:

Boiling Point: N/A

Vapor Pressure: (mm Hg) N/A

Solubility in Water: Insoluble

Vapor Density: (Air = 1) N/A

Specific Gravity: N/A

Evaporation Rate: N/A

Melting Point: N/A

Appearance and Odor: Solid wheel, black, brown or reddish color.

10. STABILITY AND REACTIVITY DATA:

Stability: Stable

Reactivity/Incompatibility (Materials or conditions to avoid): None known.

Hazardous Decomposition Products: Dust from grinding could contain ingredients listed in Section 2 and other, potentially more hazardous components of the base material being ground or coatings applied to the base material.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL DATA:

No toxicity data is available for this product.

12. ECOLOGICAL DATA:

No ecological data is available for this product.

13. DISPOSAL:

Follow all applicable Federal, State and Local Regulations.

14. TRANSPORTATION DATA:

This product is not regulated for transportation.

15. ENVIRONMENTAL REGULATORY DATA:

SARA Section 311/312 Hazard Categories: N/A

SARA Section 313:

United Abrasives MSDS #1/2
Resinoid Bonded Abrasives (11/00)

Some products contain 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 CFR Part 372 (Toxic Chemical Release Reporting):

Zinc Sulfide 1314-98-3 0-5%
(Only in Type 29 Challenger Flexible Grinding/Blending Wheels)

California Proposition 65: This is not known to contain chemicals regulated under the California Safe Drinking Water and Toxic Enforcement Act of 1986.

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

16. OTHER INFORMATION:

NFPA Hazard Rating: Health: 1 Fire: 0 Reactivity: 0

Date Previous Revision: 11/22/97

Date This Revision: 11/3/00

Revision Summary: Section 2: Revised exposure limits.

Prepared By: Denese A. Deeds, CIH IH&SC Inc., Woodbridge, CT 06525

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The preceding information is believed to be correct and current as of the date of preparation of this Material Safety Data Sheet. Since the use of this information and the conditions of use of this product are not within the control of United Abrasives, Inc., it is the users obligation to assure safe use of this product.