

Safety Data Sheet

Section 1. Identification

Product Name: Grinding Wheels – Epoxy Bond

Company Identification

Jowitt & Rodgers Co.
 9400 State Road
 Philadelphia, PA 19114
 215-824-0400 (For questions and emergencies)
 800-424-9300 (CHEMTREC)

Recommended Use

Surface grinding

Uses Advised Against

None Identified

Section 2. Hazard(s) Identification
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Classification:

Physical	Health
Mild Skin Irritation Category 3	Carcinogen Category 2

Label Elements

Warning!



Hazard statements

Suspected of causing cancer if inhaled.

 Dust may cause irritation in eyes or on skin.
 Chronic exposure may cause respiratory tract irritation.

Precautionary statements

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Wear protective gloves, protective clothing, eye protection or face protection.
 If exposed or concerned: Get medical attention.
 Store locked up.
 Dispose of contents and container in accordance with local and national regulations.
 Follow ANSI Safety Code B7.1 for the use, care and protection of abrasive wheels.

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 / Information on Ingredients

Chemical name	CAS No.	Concentration
Aluminum Oxide	1344-28-1	0-98%
Silicon Carbide	409-21-2	0-98%
Alumino-silicate Glass	NA	0-12%
Zirconium Dioxide	1314-23-4	0-30%
Sulfur	7704-34-9	0-1.5%
Titanium Dioxide	13463-67-7	1-4%
Cured Epoxy Resin	Trade Secret	0-4%
Chromic Oxide	1308-38-9	0-2%

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

Section 4. First-Aid Measures

Eyes: Remove contact lenses if present and easy to do. Flush eyes thoroughly with large amounts of water, holding eyelids open. If irritation persists, seek medical attention.

Skin: Wash skin with soap and water. If irritation or other symptoms develop, seek medical attention.

Ingestion: Do not induce vomiting. Rinse mouth with water. Seek medical attention if large amount is swallowed or if you feel unwell.

Inhalation: Move person to fresh air. If breathing is difficult, have qualified personnel administer oxygen. Seek medical attention if irritation or other symptoms persist.

Most important symptoms/effects, acute and delayed: 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.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention should not be required.

Section 5. Fire-Fighting Measures

Suitable (and unsuitable) extinguishing media: Use any media that is suitable for the surrounding fire. Do not use water on fires involving metals dusts. Use an appropriate dry powder.

Specific hazards arising from the chemical: This product is 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.

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

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Wear appropriate respirator, safety glasses, 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 cleaning up: Carefully collect dry material, avoiding the creation of airborne dust. Place in a suitable container for disposal.

Section 7. Handling and Storage

Precautions for safe handling: Avoid mechanical damage. Inspect wheel before mounting. 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 the 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 a dry area and in accordance with ANSI B 7.1

Section 8. Exposure Controls / Personal Protection

Exposure guidelines:

Silicon Carbide	5 mg/m ³ TWA (respirable) OSHA PEL 15 mg/m ³ TWA (total dust) OSHA PEL 3 mg/m ³ TWA (respirable) ACGIH TLV 10 mg/m ³ TWA (inhalable) ACGIH TLV
Alumino-silicate Glass	None Established
Zirconium Dioxide (as zirconium compounds)	5 mg/m ³ TWA (respirable) OSHA PEL 5 mg/m ³ TWA ACGIH TLV 10 mg/m ³ STEL ACGIH TLV
Aluminum Oxide	5 mg/m ³ TWA (respirable) OSHA PEL 15 mg/m ³ TWA (total dust) OSHA PEL 1 mg/m ³ TWA ACGIH TLV
Titanium Dioxide	15 mg/m ³ TWA (total dust) OSHA PEL 10 mg/m ³ TWA ACGIH TLV
Sulfur	15 mg/m ³ TWA OSHA PEL 15 mg/m ³ TWA ACGIH PEL
Cured Epoxy Resin	None Established
Chromic Oxide	0.5 mg/m ³ TWA OSHA PEL 0.5 mg/m ³ TWA ACGIH PEL

Note: Consider also components of base materials and coatings being ground.

Appropriate engineering controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Personal Protective Equipment:

Respiratory protection: Not necessary unless workplace concentrations of hazardous constituents exceed the exposure limits. If the exposure levels are excessive and irritation or other symptoms are experienced, an approved respirator should be worn. 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. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134 and ANSI Z88.2 or other applicable regulations and standards and good Industrial Hygiene practice.

Skin protection: Protective gloves recommended to avoid skin abrasion when handling grinding wheels. Wear protective clothing as required to avoid skin contact when handling.

Eye protection: Use safety glasses with side shields or goggles.

Other: Hearing protection recommended if operation is noisy.

Section 9. Physical and Chemical Properties
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Appearance: Colored solid wheel.

Odor: No odor.

Odor threshold: Not available	pH: Not applicable
Melting point/freezing point: Not available	Boiling point: Not applicable
Flash point: Not flammable	Evaporation rate: Not applicable
Flammability (solid, gas): Not flammable	Viscosity: Not applicable
Flammable limits: LEL: Not applicable	UEL: Not applicable
Vapor pressure: Not applicable	Vapor density: Not applicable
Relative density: Not available	Solubility in Water: Insoluble
Partition coefficient: n-octanol/water: Not applicable	Auto-ignition temperature: Not applicable
Decomposition temperature: Not available	

Section 10. Stability and Reactivity

Reactivity: Not reactive under normal conditions of use and storage.

Chemical stability: Stable

Possibility of hazardous reactions: None known.

Conditions to avoid: None known. .

Incompatible materials: Avoid acids and alkalis of all types.

Hazardous decomposition products: Dust and decomposing odors may be generated during use from the wheel, the material being ground, and/or the coolant.

Section 11. Toxicological Information
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Acute effects of exposure:

Inhalation: Breathing dust may cause irritation to the nose, throat and upper respiratory tract.

Skin Contact: May cause abrasive skin irritation.

Eye Contact: May cause abrasive irritation and injury.

Ingestion: Not toxic. Swallowing may cause gastrointestinal disturbances or obstruction.

Chronic Health Effects: Prolonged inhalation of respirable dust may cause adverse lung effects, including cancer. 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.

Sensitization: No data available for the product. Not expected to be a skin sensitizer based on human experience.

Germ Cell Mutagenicity: This product is not expected to present a risk of genetic damage.

Reproductive Toxicity: No specific data is available; however, this product is not expected to present a risk of adverse reproductive or developmental toxicity.

Carcinogenicity: Titanium dioxide is listed by IARC as “Possibly Carcinogenic to Humans” (Group 2B).

Acute toxicity values:

Silicon Carbide: LD50 oral rat >2,000 mg/kg; LD50 dermal rabbit >2,000 mg/kg;

Zirconium Dioxide: LD50 Oral rat >5,000 mg/kg; LC50 Inhalation rat >4.3 mg/L/4 hr

Aluminum Oxide: LD50 Oral rat >10,000 mg/kg; LC50 Inhalation rat >2.3 mg/L/4 hr

Titanium Dioxide: LD50 Oral rat >20,000 mg/kg; LC50 Inhalation rat >6.82 mg/L/4 hr

Sulfur: LD50 Oral rat > 8437mg/kg; LC50 Inhalation mammal > 1660 mg/m³/4 hr

Alumino-silicate glass: No acute toxicity data available

Cured Epoxy Resin: No acute toxicity data available

Chromic Oxide: No acute toxicity data available

Section 12. Ecological Information

No adverse effects on aquatic organisms are expected. However, consideration must be given to potential environment effects of the base material being processed.

Ecotoxicity values:

Silicon Carbide: No data available.

Phenol Formaldehyde Polymer: No acute toxicity data available

Zirconium Dioxide: LL50 96 hr Danio rerio >1000 mg/L; EC50 48 hr daphnia magna >100 mg/L:

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

Selenastrum capricornutum >100 mg/L

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

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

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

Other adverse effects: None known.

Section 13. Disposal Considerations

Dispose in accordance with all local, state and national 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.

Section 14. Transport Information

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

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

Special precautions: None identified.

Section 15. Regulatory Information

Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103)/RQ: This product is not subject to CERCLA release reporting. Many states have more stringent spill reporting requirements. Report spills in accordance with all applicable regulations.

SARA Hazard Category (311/312):

- N – Fire Hazard
- N – Sudden Release of Pressure
- N – Reactivity
- N – Acute Health
- Y – Chronic Health

EPA SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313: None

California Proposition 65: This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity: Titanium dioxide (13463-67-7) 1-2% (cancer). Dust created from cutting, drilling or grinding may contain chemicals known to cause cancer, birth defects or other reproductive harm.

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

Section 16. Other Information

NFPA RATING (NFPA 704) FIRE: 0 HEALTH: 1 INSTABILITY: 0

HMIS RATING FIRE: 0 HEALTH: 1* PHYSICAL HAZARD: 0

* Indicates a long term health hazard from repeated or prolonged exposures.

SDS Revision History: New SDS
Date of preparation: 21 May 2015
Date of last revision: None

DISCLAIMER

This above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. Unified Abrasives Manufacturers' Association shall not be held liable for any damage resulting from handling or from contact with the above product. This information relates only to the product designated herein and does not relate to its use in combination with any other material or process.