



# WSDS-040 Vitrified Bond Grinding Wheels and Mounted Points – Aluminum Oxide

## Safety Data Sheet

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name : Vitrified Bond Grinding Wheels and Mounted Points – Aluminum Oxide

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Manufacturing

#### 1.3. Details of the supplier of the safety data sheet

Weiler Corporation  
1 Weiler Drive  
Cresco, PA 18326

#### 1.4. Emergency telephone number

Emergency number : 570-595-7495

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

This product as manufactured is defined as an article per 29 CFR 1910.1200. No exposure hazards are anticipated during normal product handling conditions. In most cases, the material(s) removed from the workpiece may present a greater hazard than material released by the product. Based upon the materials that are contained within the working portion of this product it is possible that some dust particles from this product may be generated. The following safety data is presented for potential exposure hazards as associated with the dust particles that are related to this product.

#### Classification (GHS-US)

Not classified

#### 2.2. Label elements

##### GHS-US labeling

This product as manufactured is defined as an article, therefore no labeling is required for the product as manufactured.

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS-US)

Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Aluminum oxide	(CAS No) 1344-28-1	≥ 97	Not classified
Total Impurities (CaO + Fe <sub>2</sub> O <sub>3</sub> + MgO + Na <sub>2</sub> O + SiO <sub>2</sub> + TiO <sub>2</sub> )	None	1	Not classified
Aluminosilicate bond	None	≤ 3	Not classified
Silica	(CAS No) 7631-86-9	0 - 5	Not classified

Full text of H-phrases: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation : Remove victim from source of exposure to fresh air. If breathing is difficult administer oxygen. Seek medical attention.

First-aid measures after skin contact : Wash with soap and water. Seek medical advice if skin irritation develops or persists.

First-aid measures after eye contact : Flush with plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists.

First-aid measures after ingestion : Seek medical attention.

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### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	: Dusts may cause coughing, shortness of breath. Prolonged breathing of dusts may affect breathing capacity.
Symptoms/injuries after skin contact	: Dusts may cause irritation. May cause abrasions.
Symptoms/injuries after eye contact	: Dust may irritate or damage the eyes without protection.
Symptoms/injuries after ingestion	: None under normal use.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Use water, carbon dioxide, foam or dry chemical.
Unsuitable extinguishing media	: None.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Toxic fumes may occur. Use respiratory protective equipment.
Explosion hazard	: None known.

### 5.3. Advice for firefighters

Protection during firefighting	: Firefighters should wear full protective gear.
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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

By grinding do not inhale dust. See also item 8.

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Do not discard into the environment.

### 6.3. Methods and material for containment and cleaning up

For containment	: No special measures required.
Methods for cleaning up	: Pick up mechanically. Dispose of according to item 13.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	: Special technical measures are not necessary. When it is used and handled according to specification, the product does not have any harmful effects, according to our experience and the information provided to us. Handle with adequate ventilation for dust.
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### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a dry place.
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### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Aluminum oxide (1344-28-1)		
ACGIH	Not applicable	
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)

### Non Hazardous Ingredients

ACGIH	Not applicable
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Non Hazardous Ingredients		
OSHA	Not applicable	
Silica (7631-86-9)		
IDLH	US IDLH (mg/m <sup>3</sup> )	3000 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>

Note: Consideration should be given to the base material and coating that are being worked upon.

### 8.2. Exposure controls

#### Appropriate engineering controls:

Utilize adequate ventilation to minimize the exposure to airborne particulates and maintain the concentration of contaminants below the occupational exposure limits.

#### Respiratory Protection:

When exposure limits are exceeded or when the dust concentrations are excessive, approved respirators for those conditions should be used. When selecting the respiratory protection equipment, consideration of the exposure to the coating or the base materials being worked on should be included. Local regulations and standards should be followed where appropriate. The type of respiratory equipment used should be selected according to the contaminate type, form and concentration being produced. Select and use respirators in accordance with applicable regulations and good industrial hygiene practice.

#### Hand protection:

The use of cloth or leather gloves is recommended.

#### Eye Protection:

Safety goggles or face shield over safety glasses with side shields.

#### Hearing Protection:

Hearing protection may be required.

#### Skin and body protection:

The use of protective clothing should be used as needed to prevent the contamination of personal clothing.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Odor	: Odorless
Odor threshold	: No data available
pH	: No data available
Melting point	: 2072°C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Specific gravity	: 4.6
Relative vapor density at 20 °C	: No data available
Solubility	: Insoluble
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available

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Viscosity, dynamic : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available.

### 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

Conditions to be avoided. See item 7. According to our present knowledge the products are soluble in hydrofluoric acid (HF) only. However particular oxides that are included in the ceramic bond (e.g. alkali oxides) can be leached out in strong acid or strong alkali solutions. Ensuring that the pH of the cooling liquid or cooling oil stays around the neutral point is a guarantee that the bond in the grinding wheel will be virtually insoluble.

Protect from rain water.

### 10.3. Possibility of hazardous reactions

Will not occur.

### 10.4. Conditions to avoid

None.

### 10.5. Incompatible materials

None.

### 10.6. Hazardous decomposition products

Not determined.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Aluminum oxide (1344-28-1)	
LD50 oral rat	> 5000 mg/kg

  

Silica (7631-86-9)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 2.2 mg/l (Exposure time: 1 h)

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

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### SECTION 12: Ecological information

#### 12.1. Toxicity

Silica (7631-86-9)	
LC50 fish 1	5000 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	7600 mg/l (Exposure time: 48 h - Species: Ceriodaphnia dubia)

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

Silica (7631-86-9)	
BCF fish 1	(no bioaccumulation expected)

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

- Effect on ozone layer : No additional information available
- Effect on the global warming : No known ecological damage caused by this product.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

- Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.
- Abrasive tools also include particles of the materials that they have been used on. Therefore, refer to the SDS for the material this product was used on for any information concerning disposal.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

- In accordance with DOT
- Not a dangerous good as defined in transport regulations

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

Aluminum oxide (1344-28-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	1.0 % (fibrous forms)

  

Silica (7631-86-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

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### 15.2. US State regulations

<b>Silica (7631-86-9)</b>				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

<b>Aluminum oxide (1344-28-1)</b>
U.S. - Massachusetts - Right To Know List U.S. - Minnesota - Hazardous Substance List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

<b>Silica (7631-86-9)</b>
U.S. - Massachusetts - Right To Know List U.S. - Minnesota - Hazardous Substance List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

### SECTION 16: Other information

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*