Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Vitrified Bonded Abrasives

SECTION 1: Identification

Product identifier

Product name: Vitrified Bonded Abrasives

Additional information: This product is not hazardous as shipped and sold. However, during the grinding process, hazardous substances may be released and made available for exposure. The Hazard Classification in Section 2 and corresponding Label Elements are applicable to this product when used for grinding, sanding, mechanical abrasion or any other fabrication process that compromises the integrity of the product.

Recommended use of the product and restriction on use

Relevant identified uses: Industrial use; Grinding abrasive

Uses advised against: Any use other than recommended above.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

United States

CGW Abrasives
7525 N Oak Park Ave
Niles, IL 60714
800-447-3731
sales@cgwcamel.com

Emergency telephone number:

United States

Emergency Phone Number
800-447-3731 (24/7)

SECTION 2: Hazard(s) identification

GHS classification:

Skin irritation, category 2
Carcinogenicity, category 1A
Specific target organ toxicity - repeated exposure, category 1

Label elements

Hazard pictograms:

Signal word: Danger

Hazard statements:

H315 Causes skin irritation

H350 May cause cancer via inhalation.
H372 Causes damage to organs (Lungs) through prolonged or repeated exposure via inhalation.

Precautionary statements:

P264 Wash skin thoroughly after handling
P280 Wear protective gloves/protective clothing/eye protection/face protection
P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P260 Do not breathe dust/fume/gas/mist/vapors/spray
P270 Do not eat, drink or smoke when using this product
P302+P352 IF ON SKIN: Wash with plenty of water.
P321 Specific treatment (see Sections 4 - 8 of this SDS and any additional information on the product label).
P332+P313 If skin irritation occurs: Get medical advice/attention
P362 Take off contaminated clothing and wash it before reuse
P308+P313 IF exposed or concerned: Get medical advice/attention
P405 Store locked up
P501 Dispose of contents/container in accordance with all local/regional/state and federal regulations.

Hazards not otherwise classified:

Prolonged exposure to metal fume or dust may cause Metal Fume Fever.
Finely dispersed particles may form explosive mixtures in air.
Airborne dust/particulate may cause mechanical abrasion of the eye.
Airborne silica of respirable size can cause Silicosis, an incurable lung disease that can lead to disability and death; Lung cancer; Chronic obstructive pulmonary disease (COPD); and Kidney disease. Although not readily available, crystalline silica has been included in Section 3 (composition) and Section 8 (occupational exposure limits).

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 1344-28-1	Aluminum Oxide	<95
CAS number: 409-21-2	Silicon carbide	<95
CAS number: Not Applicable	Glass or Glass/Porcelain	<40
CAS number: 13463-67-7	Titanium Dioxide	<1
CAS number: 14808-60-7	Silica, crystalline quartz	<1
CAS number: 7704-34-9	Sulfur	<35
CAS number: Not Applicable	Paraffin	<35
CAS number: Not Applicable	Resin	<35

Additional Information:

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld

due to expected variability in product composition and as a trade secret in accordance with paragraph (i) of the OSHA hazard Communication Standard (29 CFR §1910.1200). For more information about the composition for sampling purposes, contact CGW Abrasives.

SECTION 4: First aid measures

Description of first aid measures

General notes:

The First Aid Measures described below are applicable to this product when used for grinding, sanding, mechanical abrasion or any other fabrication process that releases hazardous dust or fume.

After inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If experiencing respiratory symptoms, seek medical advice/attention.

After skin contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

After eye contact:

Rinse eyes with plenty of gently flowing lukewarm water for 15 minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

After swallowing:

Not a likely route of exposure.

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

The Acute Effects described below are applicable to this product when used for grinding, sanding, mechanical abrasion or any other fabrication process that releases hazardous dust or fume.

INHALATION of airborne dusts and fumes may cause respiratory irritation. Symptoms include cough, breathing difficulties, inflammation of the mucous membranes lining the respiratory tract and nose and throat pain. Excessive inhalation of fumes of freshly formed metal oxide particles may cause a flu-like illness called Metal Fume Fever.

SKIN CONTACT may result in skin irritation. Symptoms include redness, inflammation and itching.

EYE CONTACT with airborne dust and fume may cause serious eye irritation. Symptoms include: redness, tearing, burning, inflammation, pain and sensation of a foreign object in the eye.

Delayed symptoms and effects:

The Delayed Effects described below are applicable to this product when used for grinding, sanding, mechanical abrasion or any other fabrication process that releases hazardous dust or fume.

Chronic exposure to Aluminum Oxide fumes or dust may damage the lungs and peripheral nervous system. Adverse effects on lungs include chronic bronchitis, COPD and pulmonary fibrosis.

Chronic exposure to airborne silica of respirable size can cause Silicosis, an incurable lung disease that can lead to disability and death; Lung cancer; Chronic obstructive pulmonary disease (COPD); and Kidney disease.

Immediate medical attention and special treatment

Specific treatment:

If concerned or not feeling well, seek medical attention/advice.

Notes for the doctor:

Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media:

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards during fire-fighting:

Thermal decomposition may lead to the release of irritating and toxic substances, including: Carbon Oxides, Aluminum Oxides, Titanium Oxides, Silicon Oxides and Sulfur Oxides.

Special protective equipment for firefighters:

Self-contained MSHA/NIOSH approved respiratory protection and full protective clothing should be worn when fumes and/or smoke from fire are present.

Special precautions:

This product is not combustible; 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.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear appropriate respirator and protective clothing (see Section 8) as needed to avoid eye contact and inhalation of dust.

Environmental precautions:

Prevent entry into drains, sewer and waterways.

Do not discharge into the environment.

Methods and material for containment and cleaning up:

Carefully sweep up or gather dry material, avoiding the creation of airborne dust. Place recovered product in appropriate container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Reference to other sections:

Section 8: Personal Protective equipment

Section 13: Disposal

SECTION 7: Handling and storage

Precautions for safe handling:

The Precautions for Safe Handling described below are applicable to this product when used for grinding, sanding, mechanical abrasion or any other fabrication process that releases hazardous dust or fume.
Wear recommended personal protective equipment (see Section 8). Do not contaminate water, food, or feed by storage or disposal. Use only with adequate ventilation. Do not breathe dust or fume. Avoid contact with eyes, skin and clothing. Keep away from hot surfaces, open flame and sources of ignition. Do not eat, drink or smoke while using. Wash thoroughly after handling. Do not allow contaminated clothing outside of the workplace. Launder contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities:

Store in original, tightly closed container. Store away from incompatible materials.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
OSHA	Aluminum Oxide	1344-28-1	8-Hour TWA-PEL: 15 mg/m³ ((total dust))
	Aluminum Oxide	1344-28-1	8-Hour TWA-PEL: 5 mg/m³ ((respirable fraction))
	Silicon carbide	409-21-2	8-Hour TWA: 5 mg/m³ ((Respirable fraction))
	Silicon carbide	409-21-2	8-Hour TWA: 15 mg/m³ ((Total dust))
	Titanium Dioxide	13463-67-7	PEL: 15 mg/m³ ((total dust) (Table Z-1))
	Titanium Dioxide	13463-67-7	8-Hour TWA: 10 mg/m³ ((total dust) (Table Z-1-A))
	Silica, crystalline quartz	14808-60-7	TWA: 0.1 mg/m³ (Respirable fraction)
	Silica, crystalline quartz	14808-60-7	TWA: 0.3 mg/m³ (Total dust)
ACGIH	Aluminum Oxide	1344-28-1	8-Hour TWA: 1 mg/m³ ((respirable particulate))
	Silicon carbide	409-21-2	8-Hour TWA: 10 mg/m³ ((Non-fibrous, inhalable fraction))
	Silicon carbide	409-21-2	8-Hour TWA: 3 mg/m³ ((Non-fibrous, respirable fraction))
	Silicon carbide	409-21-2	8-Hour TWA: 0.1 mg/m³ ((Fibrous, including whiskers))
	Titanium Dioxide	13463-67-7	8-Hour TWA: 10 mg/m³
	Silica, crystalline quartz	14808-60-7	TWA: 0.025 mg/m³ (Respirable fraction)
NIOSH	Silicon carbide	409-21-2	REL: 10 mg/m³ ((Total dust))
	Silicon carbide	409-21-2	REL: 5 mg/m³ ((Respirable fraction))
	Titanium Dioxide	13463-67-7	IDLH: 5000 mg/m³
	Silica, crystalline quartz	14808-60-7	TWA: 0.05 mg/m³

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

The Engineering Controls described below are applicable to this product when used for grinding, sanding, mechanical abrasion or any other fabrication process that releases hazardous dust or fume.
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below any occupational exposure limits.

Personal protection equipment

Eye and face protection:

Contact lenses should not be worn where industrial exposure to this material is likely. Wear safety

glasses, face shield or goggles as required for welding, burning, sawing, brazing, grinding or machining operations.

Skin and body protection:

Cut resistant gloves and sleeves should be worn when working with metal parts. Protective gloves should be worn as required for grinding, welding and burning operations. 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. Personal protective equipment for the body should be selected based on the task being performed and the risks involved. For grinding, welding and burning operations, wear appropriate personal protective clothing to prevent skin contact. Contaminated work clothing must not be allowed out of the workplace.

Respiratory protection:

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, use only a NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. Concentration in air of the various contaminants determines the extent of respiratory protection needed.

General hygienic measures:

Handle in accordance with good industrial hygiene and safety measures. Wash hands and face after handling chemical products. Wash hands before eating, drinking and smoking. Wash hands at the end of the workday.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Wheel, various colors
Odor	None
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	Not determined or not available.
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	Not determined or not available.
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.

Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:
The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability:
Stable under normal storage and handling conditions.

Possibility of hazardous reactions:
Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid:
Strong acids, Strong bases & Strong oxidizing agents may modify the mechanical characteristics of the products and create safety hazards when used on machines.

Incompatible materials:
Strong Acids; Strong Bases; Strong Oxizing Agents

Hazardous decomposition products:
Thermal decomposition may lead to the release of irritating and toxic substances, including: Carbon Oxides, Aluminum Oxides, Titanium Oxides, Silicon Oxides and Sulfur Oxides.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Route	Result
Silicon carbide	oral	LD50 Rat: 2000 mg/kg
	dermal	LD50 Rat: >2000 mg/kg
Titanium Dioxide	oral	LD50 Mouse: > 5000 mg/kg
	inhalation	LC50 Rat: 5.09 mg/L (4 hr)

Skin corrosion/irritation

Assessment:
Causes skin irritation.

Product data:
No data available.

Substance data:

Name	Result
Sulfur	Causes skin irritation.

Serious eye damage/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data:
No data available.

Substance data: No data available.

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Carcinogenicity

Assessment:

May cause cancer.

Product data: No data available.

Substance data:

Name	Species	Result
Titanium Dioxide	Not applicable.	Airborne, unbound particles of respirable size are known to cause cancer.
Silica, crystalline quartz	Not applicable	Inhalation of respirable silica (quartz) is known to cause cancer in humans.

International Agency for Research on Cancer (IARC):

Name	Classification
Titanium Dioxide	Group 2B
Silica, crystalline quartz	Group 1

National Toxicology Program (NTP):

Name	Classification
Silica, crystalline quartz	Known to be human carcinogens

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

Assessment:

Causes damage to organs through prolonged or repeated exposure.

Product data:

No data available.

Substance data:

Vitrified Bonded Abrasives

Name	Result
Aluminum Oxide	Chronic exposure to Aluminum Oxide fumes or dust may damage the lungs and peripheral nervous system.
Silica, crystalline quartz	Inhalation of respirable silica causes damage to the lungs including COPD; silicosis and lung cancer

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Information on likely routes of exposure:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:

See Section 4: Acute Effects; Delayed Effects

Other information:

No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Chronic (long-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data: No data available.

Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

Mobility in soil

Product data: No data available.

Substance data: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

Dispose of in accordance with all applicable local, regional, state and federal regulations.

Contaminated packages:

Not determined or not applicable.

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA): None of the ingredients are listed.

Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.

Export notification under TSCA Section 12(b): None of the ingredients are listed.

SARA Section 302 extremely hazardous substances: None of the ingredients are listed.

SARA Section 313 toxic chemicals:

1344-28-1	Aluminum Oxide	Listed

CERCLA: None of the ingredients are listed.

RCRA: None of the ingredients are listed.

Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know:

1344-28-1	Aluminum Oxide	Listed
409-21-2	Silicon carbide	Listed
13463-67-7	Titanium Dioxide	Listed
14808-60-7	Silica, crystalline quartz	Listed
7704-34-9	Sulfur	Listed

New Jersey Right to Know:

1344-28-1	Aluminum Oxide	Listed

409-21-2	Silicon carbide	Listed
13463-67-7	Titanium Dioxide	Listed
14808-60-7	Silica, crystalline quartz	Listed
7704-34-9	Sulfur	Listed

New York Right to Know:

1344-28-1	Aluminum Oxide	Listed
13463-67-7	Titanium Dioxide	Listed

Pennsylvania Right to Know:

1344-28-1	Aluminum Oxide	Listed
409-21-2	Silicon carbide	Listed
13463-67-7	Titanium Dioxide	Listed
14808-60-7	Silica, crystalline quartz	Listed
7704-34-9	Sulfur	Listed

California Proposition 65:

⚠**WARNING:** This product can expose you to chemicals including Silica, crystalline (airborne particles of respirable size) and Titanium dioxide (airborne, unbound particles of respirable size) which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

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End of Safety Data Sheet