

SAFETY DATA SHEETS

This SDS packet was issued with item:

070838094

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

070838086 070838102

Section 1 – Identification of the Substance/Preparation and of the Company/Undertaking

Product Name: ARBOR BANDS/MANDRELS
Chemical Name: Fastcut Resin Cloth A
(24 to 180X875F)

MSDS Initial Approval Date:	July 2002
MSDS Prepared by:	JRR

Family: Abrasives

Manufacturer: Patterson Companies, Inc.
1031 Mendota Heights Road
St. Paul, MN 55120
www.pattersoncompanies.com

Product Use: Abrasive Tool.

Emergency Phone Numbers: Main (800)-328-5536
Fax (651) 686-9331

Product #: -- 070838086, 070838094, 070838102

Information Contacts: US & Canada
Chemtrec (800) 424-9300

Section 2 - Composition/Information on Ingredients

Chemical Identity	CAS Numbers	EINECS#	INCI Name	Exposure OSHA TWA/STEL	Limits ACGIH TWA/STEL	Carcinogen IARC/NTP/OSHA	%
Silicon Carbide	409-21-2	206-991-8	Silicon Carbide	15 mg/M3	10 mg/M3	N/DA	N/A
Aluminum Oxide	1344-28-1	215-691-6	N/DA	15 mg/M3	10 mg/M3	N/DA	N/A

N/E - None Established

N/R - Not Reviewed

N/DA - No Data Available

N/A - Not Applicable

This mixture contains no other ingredients known to retain hazardous properties or which is defined as hazardous by OSHA.

Section 3 - Hazards Identification**EMERGENCY OVERVIEW**

This information is based on findings from related or similar materials.

- May cause allergic skin reaction.
- May cause eye irritation.
- Dust may cause irritation of the nose, throat, and lungs.
- This product may contain particulate, not otherwise classified (Nuisance Dust)

Potential Health Effects, Signs and Symptoms of Exposure:

Primary Route of Entry	Eyes or skin (No absorption); inhalation of dust.
Eye	Higher concentration can irritate eyes. May cause eye irritation or damage.
Skin	Repeated or prolonged exposure may cause allergic skin rashes.
Ingestion	Higher concentration can irritate respiratory system.
Inhalation	Possible temporary discomfort due to inhalation of dust concentration above the permissible exposure limit. Dust may cause irritation of the nose, throat, and lungs.
Sub-Chronic Effects	Avoid inhalation of dust. Keep dust out of eyes to prevent possible irritation.

NOTE: Refer to Section 11, Toxicological Information for Details

Section 4 - First Aid Measures

First Aid for Eye	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.
First Aid for Skin	Get medical aid if irritation develops or persists. Wash clothing before reuse. Flush skin with plenty of soap and water.
First Aid for Inhalation	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
First Aid for Ingestion	Do not induce vomiting. If victim is conscious and alert, give 2 – 4 cupfuls of milk or water. Get medical aid if irritation or symptoms occur.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

Flash Point (°F/°C)	Flammable Limit (vol%)	Auto-ignition Temperature (vol%)
N/A	LEL: N/A	N/E

UEL: N/A

Method:

Extinguishing media: Water, carbon dioxide, dry chemical.
Fire Fighting Instructions: Fire fighters should wear self-contained breathing apparatus.
Unusual Hazards: None

Section 6 - Accidental Release Measures

Spill or Release Procedures No special procedures

Section 7 - Handling and Storage

Handling Normal precautions should be taken for nuisance dust and particulates generated during grinding operation, principally from work piece.
Storage Store in cool, dry place away from heat, sparks, flame and direct sunlight.
Explosion Hazard N/A

Section 8 – Exposure Controls/Personal Protective Equipment

Engineering Controls Use good local exhaust at processing equipment, including buffers, sanders, grinders and polishers. High temperature processing equipment should be well ventilated. Provide ventilation if necessary to control exposure levels below airborne exposure limits.

Personal Protective Equipment

General Normal dust procedures for personal protective equipment.
Eye/ Face Protection Use safety glasses and have eye-flushing equipment immediately available.
Skin Protection Minimize contamination by following good industrial practice. Wearing nitrile, neoprene, pvc, latex or other impermeable gloves is recommended.
Respiratory Protection Avoid breathing dust and mist. Use dust mask.

Section 9 - Physical and Chemical Properties

Appearance	Odor & Odor Threshold	pH	Specific Gravity	Viscosity	% Volatile
Abrasive Rotary Tool	None	N/A	N/A	N/A	N/A

Boiling Point/ Freezing Point	Decomposition Temperature	Octanol/Water Partitioning Coefficient Log Po/w	Vapor Pressure:	Vapor Density	Evaporation Rate	Ignition	Solubility In Water (20°C)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	Insoluble

Flash Point (°F/°C)	Flammable Limit (vol%)	Auto-ignition Temperature (vol%)
N/A	LEL – N/A UEL – N/A	N/A

Section 10 - Stability and Reactivity

Stability:
Stable
Hazardous Decomposition Products: N/DA
Conditions to Avoid: N/A

Incompatibility (Materials to Avoid):
Strong oxidizing agents
Hazardous Polymerization:
Will not occur

Section 11 - Toxicological Information

Acute Oral Toxicity	Acute Dermal Toxicity	Acute Inhalation Toxicity	Irritation - skin	Irritation - Eye
N/E	N/E	N/E	N/E	N/E
Sensitization		Mutagenicity		Sub-chronic Toxicity
No information available		No information available		No information available

Section 12 - Ecological Information**Ecotoxicological Information**

Acute Toxicity To Fish	Acute Toxicity to Invertebrates	Acute Toxicity to Algae	Bioconcentration	Toxicity to Sewage Bacteria
N/DA	N/DA	N/DA	N/DA	N/DA

Chemical Fate Information

Biodegradability	N/DA
Chemical Oxygen Demand	N/DA

To the best of our knowledge, the ecotoxicological and chemical fate properties have not been thoroughly investigated.

Do not allow to enter drinking water supplies, wastewater, or soil.

Environmental Fate Information**Section 13 - Disposable Considerations**

Follow Federal, State and Local regulations for disposal. For EU Member States, please refer to any relevant Community provisions relating to waste. In their absence, it is useful to remind the user that national or regional provisions may be in force.

Section 14 - Transport Information

DOT (49 CFR 172)	
Proper Shipping Name:	Non-Regulated Material
Identification Number:	N/A
Marine Pollutant:	No
Special Provisions:	N/A
Emergency Response Guidebook (ERG) #:	N/A
IATA (DGR):	
Proper Shipping Name:	Non-Regulated Material
Class or Division:	N/A
UN or ID Number:	N/A
Packaging Instructions:	
Emergency Response Guidance (ICAO)#:	
IMO (IMDG):	
Proper Shipping Name:	Non-Regulated Material
Class or Division:	N/A
UN or ID Number:	N/A
Special Provisions & Stowage/Segregation:	None
Emergency Schedule (EmS)#:	
Other Information:	

Section 15 - Regulatory Information**US Federal Regulations**

Clean Air Act: HAP/ODS	This product contains the following hazardous air pollutants (HAP's) or ozone depleting substances (ODS's), as defined by the U. S. Clean Air Act: <ul style="list-style-type: none"> NONE
Clean Water Act:	This product contains the following chemicals listed under the U.S. Clean Water Act Priority Pollutant List: <ul style="list-style-type: none"> NONE
FDA: Food Packaging Status	This product has not been cleared by the FDA for use in food packaging and/ or other applications as an indirect food additive.
Occupational Safety and Health Act	This product is not considered a hazardous chemical under the OSHA Hazard Communication Standard.
RCRA	This product contains no chemicals considered to be hazardous waste under RCRA (40 CFR 261).
SARA Title III: Section 302 (TPQ)	This product contains no chemicals regulated under Sec. 302 as extremely hazardous substances.
SARA Title III: Section 302 (RQ)	This product contains no chemicals regulated under Sec. 304 as extremely hazardous chemicals for emergency release notification ("CERCLA " List).
SARA Title III: Section 311-312:	This product does not contain hazardous substances under the OSHA Hazard Communication Standard, and is not regulated under Section 311-312 (40 CFR 370).
SARA Title III: Section 313:	This product contains the following chemicals outlined in SARA Title III: Section 313: <ul style="list-style-type: none"> NONE
TSCA Section 8(b): Inventory:	This product contains chemicals listed on the TSCA inventory or otherwise complies with TSCA

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TSCA Significant New Use Rule:	premanufacture notification requirements. None of the chemicals listed have a SNUR under TSCA.
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State Regulations

CA Right-to-Know Law:	NONE
California No Significant Risk Rule:	NONE
MA Right-to-Know Law:	NONE
NJ Right-to-Know Law:	NONE
PA Right-to-Know Law:	NONE
FL Right-to-Know Law:	NONE
MN Right-to-Know Law:	NONE

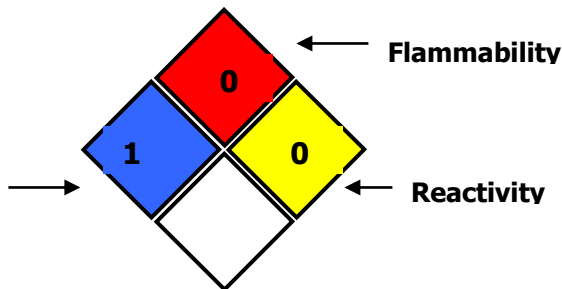
International Regulations

CDSL: Canadian Inventory (On Canadian Transitional List)	Silicon Carbide- CAS# 409-21-2, Not controlled under WHMIS. Aluminum Oxide- CAS#1344-28-1, Not controlled under WHMIS.
EINECS: European Inventory:	<ul style="list-style-type: none">HAZARD SYMBOLS: N/DARISK PHRASES: N/DASAFETY PHRASES: N/DA

Section 16 – Other Information

Hazard Rating System (Pictograms)

NFPA:



HMIS:

1	Health
0	Flammability
0	Reactivity

Reviewed: December 2006	
Revised Sections since Last Version:	Overall format revision December 2006
Revised September 2, 2010 SWR	Deleted Garnet & Zirconium Oxide from ingredient list Per RP
Revised June 23, 2011	Updated WHMIS.
Revised October 28, 2013	Reviewed, No Changes

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Information contained within this SDS is only to be distributed as required by law.

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Patterson Arbor Bands-Mandrels

SECTION 1: Identification of the substance/mixture and of the supplier

Product name: Patterson Arbor Bands-Mandrels

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: Patterson Arbor Bands-Mandrels

Recommended uses of the product and restrictions on use: Abrasive Tool

Manufacturer Details:

Patterson Companies, Inc.
1031 Mendota Heights Road
St. Paul, MN 55120

Supplier Details:

Patterson Companies, Inc.
1031 Mendota Heights Road
St. Paul, MN 55120

Emergency telephone number:

ChemTrec, INC
800-424-9300
703-527-3887 (CHEMTREC)

SECTION 2: Hazards identification

Classification of the substance or mixture: Not classified for physical or health hazards under GHS.

Signal word: None

Hazard statements: None

Precautionary statements:

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.

Other Non-GHS Classification: None

SECTION 3: Composition/information on ingredients

Ingredients:		
CAS 409-21-2	Silicon Carbide	<100 %
CAS 1344-28-1	Aluminum Oxide	<100 %
Percentages are by weight		

SECTION 4: First aid measures

Description of first aid measures

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position. Move exposed to fresh air. Give

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artificial respiration if necessary. If breathing is difficult give oxygen. Get medical assistance if cough or other symptoms appear. Possible temporary discomfort due to inhalation of dust concentration above the permissible exposure limit. Dust may cause irritation of the nose, throat, and lungs.

After skin contact:

Rinse/flush exposed skin gently using soap and water for 15-20 minutes. Seek medical advice if discomfort or irritation persists. Wash clothing before reuse.

After eye contact:

Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Seek medical attention if irritation persists or if concerned.

After swallowing:

Rinse mouth thoroughly. Do not induce vomiting. Seek medical attention if irritation, discomfort, or vomiting persists. If victim is conscious and alert, give 2 - 4 cupfuls of milk or water.

Most important symptoms and effects, both acute and delayed:

Irritation. Headache. Nausea. Shortness of breath.

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing agents:

Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

Unsuitable extinguishing agents:

None identified.

Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors.

Advice for firefighters:

Protective equipment:

Wear protective eyewear, gloves, and clothing. Refer to Section 8. Use NIOSH-approved respiratory protection/breathing apparatus.

Additional information (precautions):

Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation. Ensure that air-handling systems are operational.

Environmental precautions:

Should not be released into environment. Prevent from reaching drains, sewer, or waterway.

Methods and material for containment and cleaning up:

SMALL MOLTEN SPILL: Allow wax to cool and remove as a solid. Always obey local regulations. Containerize for disposal. Refer to Section 13. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Keep in suitable closed containers for disposal. LARGE MOLTEN SPILLS: Wear respirator and protective clothing as appropriate. Shut off source of leak if safe to do so. Dike and contain. Allow wax to cool and remove as a solid.

Reference to other sections: None

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SECTION 7: Handling and storage

Precautions for safe handling:

Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid heat and direct sunlight. Normal precautions should be taken for nuisance dust and particulates generated during grinding operation, principally from work piece.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Keep away from food and beverages. Keep container tightly sealed. Store away from heat, sparks, and open flame.

SECTION 8: Exposure controls/personal protection



Control Parameters:

1344-28-1, Aluminum Oxide, OSHA PEL: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction).

409-21-2, Silicon Carbide, OSHA PEL: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction).

409-21-2, Silicon Carbide, ACGIH TLV: 10 mg/m³ TWA.

Appropriate Engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination. Do not let molten product stand unused in melt tanks and injection machines. Stir molten product at all times.

Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment. Avoid breathing dust and mist. Use dust mask rated to P95 or greater.

Protection of skin:

Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing. Minimize contamination by following good industrial practice. Wearing nitrile, neoprene, pvc, latex or other impermeable gloves is recommended.

Eye protection:

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.

General hygienic measures:

Perform routine housekeeping. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes, and clothing. Before wearing wash contaminated clothing.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	Abrasive Rotary Tool	Explosion limit lower: Explosion limit upper:	Not applicable Not applicable
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Odor:	None	Vapor pressure at 20°C:	Not applicable
Odor threshold:	Not applicable	Vapor density:	Not Determined
pH-value:	Not Determined	Relative density:	Not Determined
Melting/Freezing point:	Not Determined	Solubilities:	Insoluble in water.
Boiling point/Boiling range:	Not Determined	Partition coefficient (n-octanol/water):	Not Determined
Flash point (closed cup):	Not Determined	Auto/Self-ignition temperature:	Not Determined
Evaporation rate:	Not Determined	Decomposition temperature:	Not Determined
Flammability (solid, gaseous):	Not flammable	Viscosity:	a. Kinematic: Not Determined b. Dynamic: Not Determined
Density at 20°C:	Not Determined		

SECTION 10: Stability and reactivity

Reactivity:

Nonreactive under normal conditions.

Chemical stability:

Stable under normal conditions.

Possible hazardous reactions:

None under normal processing.

Conditions to avoid:

Incompatible materials. Excess heat.

Incompatible materials:

Strong acids, alkalies, and oxidizing agents.

Hazardous decomposition products:

Not identified.

SECTION 11: Toxicological information

Acute Toxicity:

Oral:

1344-28-1 LD50 Rat >5000 mg/kg (Source: IUCLID)

Chronic Toxicity: No additional information.

Skin corrosion/irritation: No additional information.

Serious eye damage/irritation:

Higher concentration can irritate eyes. May cause eye irritation or damage.

Respiratory or skin sensitization: No additional information.

Carcinogenicity:

Silicon Carbide: Suspected of causing cancer.

Germ cell mutagenicity: No additional information.

Reproductive Toxicity: No additional information.

STOT-single and repeated exposure: No additional information.

Additional toxicological information: No additional information.

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SECTION 12: Ecological information

Ecotoxicity: No additional information.

Persistence and degradability:

Not determined.

Bioaccumulative potential:

Not determined.

Mobility in soil:

Expected to be low.

Other adverse effects:

None identified.

SECTION 13: Disposal considerations

Waste disposal recommendations:

Dispose of empty containers as unused product. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14: Transport information

US DOT

UN Number:

ADR, ADN, DOT, IMDG, IATA

Not Regulated

Limited Quantity Exception:

None

Bulk:

RQ (if applicable): None

Proper shipping Name: Not Regulated.

Hazard Class: None

Packing Group: Not Regulated.

Marine Pollutant (if applicable): No additional information.

Comments: None

Non Bulk:

RQ (if applicable): None

Proper shipping Name: Not Regulated.

Hazard Class: None

Packing Group: Not Regulated.

Marine Pollutant (if applicable): No additional information.

Comments: None

SECTION 15: Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

SARA Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

RCRA (hazardous waste code):

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None of the ingredients are listed.

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

None of the ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

SECTION 16: Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

NFPA: 1-1-0

HMIS: 1-1-0

GHS Full Text Phrases: None

Abbreviations and Acronyms:

IMDG International Maritime Code for Dangerous Goods.

PNEC Predicted No-Effect Concentration (REACH).

CFR Code of Federal Regulations (USA).

SARA Superfund Amendments and Reauthorization Act (USA).

RCRA Resource Conservation and Recovery Act (USA).

TSCA Toxic Substances Control Act (USA).

NPRI National Pollutant Release Inventory (Canada).

DOT US Department of Transportation.

IATA International Air Transport Association.

GHS Globally Harmonized System of Classification and Labelling of Chemicals.

ACGIH American Conference of Governmental Industrial Hygienists.

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CAS Chemical Abstracts Service (division of the American Chemical Society).

NFPA National Fire Protection Association (USA).

HMIS Hazardous Materials Identification System (USA).

WHMIS Workplace Hazardous Materials Information System (Canada).

DNEL Derived No-Effect Level (REACH).

Effective date: 05.18.2015

Last updated: 05.22.2015



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Patterson Arbor Bands

SECTION 1: Identification

Product identifier

Product name: Patterson Arbor Bands

Product code: 070838086, 070838094, 070838102

Recommended use of the product and restriction on use

Relevant identified uses: Abrasive Tool

Uses advised against: Not determined or not applicable.

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

Manufacturer or supplier details

Manufacturer:

Supplier

Patterson Companies, Inc.

1031 Mendota Heights Road

St. Paul, MN 55120

1-800-328-5536 Fax:1-651-686-9331

Emergency telephone number:

United States

CHEMTREC

Within USA and Canada: 1-800-424-9300 (CHEMTREC, 24 hours)

Outside USA and Canada: +1-703-527-3887 (CHEMTREC, 24 hours)

SECTION 2: Hazard(s) identification

GHS classification: Not a hazardous substance or mixture

Label elements

Hazard pictograms: None

Signal word: None

Hazard statements: None

Precautionary statements: None

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 1344-28-1	Aluminum oxide	<100
CAS number: 409-21-2	Silicone carbide	<100

Additional Information: None

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SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Get medical advice/attention if you feel unwell

After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

If symptoms develop or persist, seek medical attention

After swallowing:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not applicable.

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:

Carbon monoxide and carbon dioxide may form upon combustion

Heating causes a rise in pressure, risk of bursting and combustion

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation

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Ensure air handling systems are operational
Wear protective eye wear, gloves and clothing

Environmental precautions:

Should not be released into the environment
Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing
Sweep or scoop up solid material while minimizing dust generation
Dispose of contents / container in accordance with local regulations

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:

Use only with adequate ventilation.
Avoid breathing dust.
Do not eat, drink, smoke or use personal products when handling chemical substances.

Conditions for safe storage, including any incompatibilities:

Keep container tightly sealed.
Keep container dry.
Store in a cool, well-ventilated area.

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
United States (OSHA)	Silicone carbide	409-21-2	8 hr Time Weighted Avg (TWA): 15* mg/m ³ *total dust
	Silicone carbide	409-21-2	8 hr Time Weighted Avg (TWA): 5 mg/m ³ *respirable dust
	Silicone carbide	409-21-2	8 hr Time Weighted Avg (TWA): 4 mg/m ³ respirable aerosol
	Aluminum oxide	1344-28-1	OSHA PEL TWA 15.0 mg/m ³ (total dust)
	Aluminum oxide	1344-28-1	OSHA PEL TWA 5.0 mg/m ³ (respirable fraction)
NIOSH	Silicone carbide	409-21-2	8 hr Time Weighted Avg (TWA): 5 mg/m ³ *respirable fraction
	Silicone carbide	409-21-2	8 hr Time Weighted Avg (TWA): 10 mg/m ³ *total dust
ACGIH	Silicone carbide	409-21-2	TLV : 10 mg/m ³ (inhalable fraction), 3 mg/m ³ (respirable fraction)[nonfibrous forms], 0.1 respirable fibers/cc[fibrous forms]
	Aluminum oxide	1344-28-1	ACGIH TLV TWA 1.0 mg/m ³ (respirable fraction)

Biological limit values:

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

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Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls.
Biological monitoring may also be appropriate for some substances.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.
Wear appropriate clothing to prevent any possibility of skin contact.

Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

General hygienic measures:

Avoid contact with skin, eyes and clothing.
Wash hands before breaks and at the end of work.
Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Abrasive Rotary Tool
Odor	Not determined or not available.
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.

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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:

Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions of use and storage.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

None known.

Incompatible materials:

None known.

Hazardous decomposition products:

None known.

SECTION 11: Toxicological information

Acute toxicity

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

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

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

Product data:

No data available.

Substance data: No data available.

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

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

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

Product data:

No data available.

Substance data: No data available.

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:

No data available.

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

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.

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Substance data: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

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):

409-21-2	Silicone carbide	Listed
1344-28-1	Aluminum oxide	Listed

Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals:

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409-21-2	Silicone carbide	Not Listed
1344-28-1	Aluminum oxide	Not Listed

CERCLA: Not determined.

RCRA: Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

409-21-2	Silicone carbide	Listed
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New Jersey Right to Know:

409-21-2	Silicone carbide	Listed
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New York Right to Know:

409-21-2	Silicone carbide	Not Listed
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Pennsylvania Right to Know:

409-21-2	Silicone carbide	Listed
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California Proposition 65: None of the ingredients are listed.

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.

NFPA: 1-1-0-0

HMIS: 1-1-0-0

Initial preparation date: 11.27.2017

End of Safety Data Sheet