SAFETY DATA SHEET

1. Identification

Product identifier	**Resin Bonded Product**
Other means of identification	
Product code	T000856
Recommended use	Abrasive Product
Recommended restrictions	None known.

Manufacturer/Importer/Supplier/Distributor information

United States

Address:	Saint-Gobain Abrasives One New Bond Street Worcester, MA 01615
General Phone Number:	800-551-4413
Website:	www.Nortonabrasives.com

Canada

Company name:	Saint-Gobain Canada, Inc.
Address:	28 Albert Street, W. Plattsville, ON NOJ 1S0
General Phone Number:	519-684-7441
Website:	www.Nortonabrasives.com

Emergency phone number:	508-795-5000
CHEMTREC:	For emergencies in the US or Canada, call CHEMTREC: 800-424-9300

Supplier	Not available.

2. Hazard identification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.

Label elements

Hazard symbol	None.
Signal word	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Not available.
Response	Not available.
Storage	Not available.
Disposal	Not available.
Supplemental information	48% of the mixture consists of component(s) of unknown acute oral toxicity. 100% of the mixture consists of component(s) of unknown acute dermal toxicity. 100% of the mixture consists of component(s) of unknown acute inhalation toxicity. 100% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 100% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

Other hazards None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Aluminum Oxide, Non-fibrous		1344-28-1	40 - 75
Resin		9003-35-4	5 - 20
Silicon carbide		409-21-2	1 - 15
Amorphous Silica, Fused		60676-86-0	1 - 10
MICA		12001-26-2	1 - 5
Sulfates/sulfides		No Data	1 - 5
Inorganic fluorides		Not Applicable	1 - 3
Titanium dioxide		13463-67-7	0.5 - 3

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed Dusts may irritate the respiratory tract, skin and eyes.

Indication of immediate medical attention and special treatment needed Treat symptomatically.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

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 arising from the chemical During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.

Environmental precautions Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Avoid prolonged exposure. Practice good housekeeping. For industrial or professional use only. Always read, understand and follow the Safety Guide insert as well as the Safety Data Sheet before use. Use care when handling and storing abrasive wheels and products. Always inspect products for cracks, chips, nicks and for possible damage before mounting and ring test vitrified wheels. Damaged product can break apart during use and cause serious injury. Always use a guard, never exceed maximum operating speed, mount and operate according to ANSI B7.1 for Bonded Abrasive products and ANSI B7.7 for Coated Abrasive products.

Conditions for safe storage, including any incompatibilities

Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

Protective measures

Wear appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing dust. Read the Safety Data Sheet of the material you are grinding, polishing, cutting, sanding, etc. for appropriate respiratory protection. Wash hands after handling

Storage conditions

Bonded Abrasive products should be stored according to ANSI B7.1 and not be exposed to extreme temperatures or conditions that cause condensation. Coated Abrasive products should be stored according to ANSI B7.7 and between 35-50% relative humidity and between 60-80 degrees Fahrenheit.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Aluminum Oxide, Non-fibrous (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
MICA (CAS 12001-26-2)	TWA	0.1 mg/m3	Respirable fraction.
Silicon carbide (CAS 409-21-2)	TWA	0.1 fibers/cm3	Fiber.
		3 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	2.5 mg/m3	Respirable finescale particles
		0.2 mg/m3	Respirable nanoscale particles

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Aluminum Oxide, Non-fibrous (CAS 1344-28-1)	TWA	10 mg/m3	
Amorphous Silica, Fused (CAS 60676-86-0)	TWA	3 mg/m3	Respirable particles.
		10 mg/m3	Total
MICA (CAS 12001-26-2)	TWA	3 mg/m3	Respirable.
Silicon carbide (CAS 409-21-2)	TWA	0.1 fibers/cm3	Fiber.
		3 mg/m3	Respirable particles.
		10 mg/m3	Total particulate.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Amorphous Silica, Fused (CAS 60676-86-0)	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Total dust.

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
MICA (CAS 12001-26-2)	TWA	3 mg/m3	Respirable.
Silicon carbide (CAS 409-21-2)	TWA	0.1 fibers/cm3	Fiber.
		3 mg/m3	Respirable.
		10 mg/m3	Inhalable
Titanium dioxide (CAS 13463-67-7)	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Total dust.

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Aluminum Oxide, Non-fibrous (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
MICA (CAS 12001-26-2)	TWA	0.1 mg/m3	Respirable fraction.
Silicon carbide (CAS 409-21-2)	TWA	0.1 fibers/cm3	Fiber.
		3 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	2.5 mg/m3	Respirable finescale particles
		0.2 mg/m3	Respirable nanoscale particles

Canada. New Brunswick OELs: Threshold Limit Values (TLVs) Based on the 1991 and 1997 ACGIH TLVs and BEIs Publication (New Brunswick Regulation 91-191)

Components	Type	Value	Form
Aluminum Oxide, Non-fibrous (CAS 1344-28-1)	TWA	10 mg/m3	
Amorphous Silica, Fused (CAS 60676-86-0)	TWA	0.1 mg/m3	Respirable.
MICA (CAS 12001-26-2)	TWA	3 mg/m3	Respirable.
Silicon carbide (CAS 409-21-2)	TWA	10 mg/m3	
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Amorphous Silica, Fused (CAS 60676-86-0)	TWA	0.1 mg/m3	Respirable fraction.
MICA (CAS 12001-26-2)	TWA	3 mg/m3	Respirable fraction.
Silicon carbide (CAS 409-21-2)	TWA	0.1 fibers/cc	Respirable.
		0.1 fibers/cc	Fiber.
		3 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value	Form
Aluminum Oxide, Non-fibrous (CAS 1344-28-1)	TWA	10 mg/m3	Total dust.

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value	Form
Amorphous Silica, Fused (CAS 60676-86-0)	TWA	0.1 mg/m3	Respirable dust.
MICA (CAS 12001-26-2)	TWA	3 mg/m3	Respirable dust.
Silicon carbide (CAS 409-21-2)	TWA	3 mg/m3	Total dust.
		10 mg/m3	Inhalable dust.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	Total dust.

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value	Form
Aluminum Oxide, Non-fibrous (CAS 1344-28-1)	15 minute	20 mg/m3	
Amorphous Silica, Fused (CAS 60676-86-0)	15 minute	6 mg/m3	Respirable fraction.
		20 mg/m3	Inhalable fraction.
MICA (CAS 12001-26-2)	15 minute	6 mg/m3	Respirable fraction.
Silicon carbide (CAS 409-21-2)	15 minute	6 mg/m3	Respirable fraction.
		20 mg/m3	Inhalable fraction.
Titanium dioxide (CAS 13463-67-7)	15 minute	20 mg/m3	

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

Appropriate engineering controls Good general ventilation 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 recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing.

Respiratory protection Wear respirator with dust filter.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Solid.

Form Powder.

Color Not available.

Odor Not available.

Odor threshold Not available.

pH Not available.

Melting point/freezing point 3110 °F (1710 °C) estimated

Initial boiling point and boiling range 4046 °F (2230 °C) estimated

Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	1985.83 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	3.25 g/cm3 estimated
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Specific gravity	3.25 estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Acids. Chlorine.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Dust may irritate respiratory system. Prolonged inhalation may be harmful.
Skin contact	Dust or powder may irritate the skin.
Eye contact	Dust may irritate the eyes.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Dusts may irritate the respiratory tract, skin and eyes.

Information on toxicological effects

Acute toxicity Not known.

Components	Species	Test Results
Aluminum Oxide, Non-fibrous (CAS 1344-28-1)		
Acute		
Oral		
LD50	Rat	> 5000 mg/kg
Amorphous Silica, Fused (CAS 60676-86-0)		
Acute		
Oral		
LD50	Rat	> 22500 mg/kg

Components	Species	Test Results
Titanium dioxide (CAS 13463-67-7)		
Acute		
Dermal		
LD50	-	>= 10000 mg/kg
Oral		
LD50	Rat	> 10000 mg/kg

Skin corrosion/irritation Due to partial or complete lack of data the classification is not possible.

Serious eye damage/eye irritation Due to partial or complete lack of data the classification is not possible.

Respiratory or skin sensitization

Canada - Alberta OELs: Irritant

Aluminum Oxide, Non-fibrous (CAS 1344-28-1)	Irritant
Amorphous Silica, Fused (CAS 60676-86-0)	Irritant
MICA (CAS 12001-26-2)	Irritant
Silicon carbide (CAS 409-21-2)	Irritant
Titanium dioxide (CAS 13463-67-7)	Irritant

Respiratory sensitization Due to partial or complete lack of data the classification is not possible.

Skin sensitization Due to partial or complete lack of data the classification is not possible.

Germ cell mutagenicity Due to partial or complete lack of data the classification is not possible.

Carcinogenicity Risk of cancer cannot be excluded with prolonged exposure.

ACGIH Carcinogens

Aluminum Oxide, Non-fibrous (CAS 1344-28-1)	A4 Not classifiable as a human carcinogen.
Silicon carbide (CAS 409-21-2)	A2 Suspected human carcinogen.
Titanium dioxide (CAS 13463-67-7)	A3 Confirmed animal carcinogen with unknown relevance to humans.

Canada - Alberta OELs: Carcinogen category

Silicon carbide (CAS 409-21-2)	Suspected human carcinogen.

Canada - Manitoba OELs: carcinogenicity

Aluminum Oxide, Non-fibrous (CAS 1344-28-1)	Not classifiable as a human carcinogen.
Silicon carbide (CAS 409-21-2)	Suspected human carcinogen.
Titanium dioxide (CAS 13463-67-7)	Confirmed animal carcinogen with unknown relevance to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Amorphous Silica, Fused (CAS 60676-86-0)	3 Not classifiable as to carcinogenicity to humans.
Titanium dioxide (CAS 13463-67-7)	2B Possibly carcinogenic to humans.

Reproductive toxicity Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - single exposure Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - repeated exposure Due to partial or complete lack of data the classification is not possible.

Aspiration hazard Due to partial or complete lack of data the classification is not possible.

Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

Further information This product has no known adverse effect on human health.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Titanium dioxide (CAS 13463-67-7)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	> 1000 mg/l, 48 hours
Fish	LC50	Mummichog (Fundulus heteroclitus)	> 1000 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

15. Regulatory information

Canadian regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Amorphous Silica, Fused (CAS 60676-86-0)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date 04-03-2023

Version # 01

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