

Wm. R. Hall Co.
MATERIAL SAFETY DATA SHEET

SECTION 1: Name & Product

Manufacturer's Name: Wm. R. Hall Co.
Address: 901 Gibbsboro Road
Lindenwold, N.J. 08021

Emergency Phone No. (609) 784-6700
Date Prepared: 8/14/98
Person to Contact: Wayne T. Kratz

Trade Name: Emery Polishing Wheel
P/N 2615110425

SECTION 2: Composition Per 29CFR 1910.1200

Chemical Name	CAS#	OSHA-PEL	ACGIH-TLV	Carcinogen(Y/N)
Silicon Carbide	409-21-2	15mg/m ³	10mg/m ³	N
Titanium Dioxide	13463-67-7	15mg/m ³	10mg/m ³	N
Phenolic Resin	67700-42-9	10mg/m ³	10mg/m ³	N
Sulfur	7704-34-9	NAIF	NAIF	N

The elastomer which is contained in this product is not defined by OSHA as a hazardous material.

SECTION 3: Physical and Chemical Data

Boiling Point: NAIF Melting Point: NAIF Specific Gravity: 2-4
Vapor Pressure: NAIF % Volatile by Vol: NAIF Vapor Density: NAIF
Evaporation Rate: NAIF Solubility in Water: Slight
Solubility in Alcohol: NAIF Solubility in Other Solvents: NAIF
Appearance and Odor: Solid; may produce odor in use.

SECTION 4: Special Precautions

Precautions to be used in Handling and Storage: None
Other Precautions: NAIF

SECTION 5: Corrosivity and Reactivity Data

Stability: Stable
Polymerization: Will not occur
Incompatibility (materials to avoid): NAIF
Decomposition Products; Dust is generated in use. In most cases, the material removed from the workpiece will be significantly greater than the grinding wheel components.
Conditions to be Avoided: NAIF

NAIF = No Applicable Information Found

N/A = Not Applicable

SECTION 6: Health, First Aid and Medical Data

Primary Route(s) Of Entry	Acute & Chronic Health Effects & Effects of Overexposure	First Aid & Medical Information
Inhalation (during grinding)	Acute: Coughing, Shortness of breath. Chronic: May affect breathing capacity	Remove to fresh air. Artificial respiration as needed. Obtain medical assistance.
Ingestion	No known adverse effects but ingestion not recommended.	Obtain medical assistance.
Skin (during grinding)	Some may experience skin irritation from dust.	Wash affected areas with soap and water. Obtain medical assistance.
Eye (during grinding)	Dusts may irritate eyes.	Wash with large amounts of water. Obtain medical assistance if needed.
Other Potential Health risks (during grinding)	Grinding may create elevated sound levels which may affect hearing.	Obtain medical assistance

SECTION 7: Storage, Handling and Use Procedures.

Normal Storage and Handling: See ANSI Standard B7.1.

Normal Use: Handle with adequate ventilation. See OSHA 29CFR1910.94
(Ventilation) & 29CFR 1910.1000 (Air Contaminates).

Steps to be taken in case of leaks or spills: Normal Cleanup Procedures.

Waste Disposal Method: Standard landfill methods consistent with applicable
state and local laws.

SECTION 8: Personal Protection Information

Respiratory Protection (specify type) as needed. For approved dust respirators see
OSHA 29CFR1910.134.

Ventilation: Local Recommended. Mechanical (general) Recommended.

Protective Gloves: As desired by user.

Eye Protection: Recommended. See OSH 29CFR 1910.133.

Other Equipment: As needed hearing protection. See OSHA 29CFR 1910.215
(hearing protection.)

Measures to be taken during repair and maintenance of contaminated equipment that has
been in contact with this material: See Sections 7 and 8.

SECTION 9: Fire & Explosion Hazard Data

Flash Point: NAIF Method Used: N/A Flammable Limits: N/A

Extinguishing Media: Use Water.

Special Fire Fighting Procedures: None

Explosion Potential: NAIF.

This information and recommendations set forth herein are taken from sources believed to be
accurate as of the date hereof; however, Wm. R. Hall Co. makes no warranty with respect to the
accuracy of the information or the suitability of the recommendations, and assumes no liability to
any user thereof.

Signature of Preparer _____

Wayne T. Kratz



Material Safety Data Sheet
 May be used to comply with
 OSHA's Hazard Communication Standard,
 29 CFR 1910.1200. Standard must be
 consulted for specific requirements.

U.S. Department of Labor
 Occupational Safety and Health Administration
 (Non-Mandatory Form)
 Form Approved
 OMB No. 1218-0072

IDENTITY (As Used on Label and List)
 #500449

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name Metric Felt Co.	Emergency Telephone Number (312) 733-0037
Address (Number, Street, City, State, and ZIP Code) 315 S. Peoria	Telephone Number for Information
Chicago, IL 60607	Date Prepared
	Signature of Preparer (optional)

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
N/A				

Section III — Physical/Chemical Characteristics

Boiling Point	N/A	Specific Gravity (H ₂ O = 1)	.43
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water	insoluble		
Appearance and Odor	May have slight odor dur to Fiber Finish		

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)	N/A	Flammable Limits	LEL	UEL
Extinguishing Media	water, CO ₂ , Foam			
Special Fire Fighting Procedures	use self contained breathing apparatus to protect personnel from smoke inhalation			
Unusual Fire and Explosion Hazards	NONE			

Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	

Incompatibility (Materials to Avoid)

N/A

Hazardous Decomposition or Byproducts

Hydrocarbons evolved at high temperatures

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

Section VI — Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	X	N/A	N/A

Health Hazards (Acute and Chronic)

Nuisance Particulate TLV 10 mg/m3

Carcinogenicity:	N/A	IARC Monographs?	OSHA Regulated?
		N/A	N/A

Signs and Symptoms of Exposure

None in our experience under normal conditions of handling and use

Medical Conditions Generally Aggravated by Exposure

Emergency and First Aid Procedures

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled

sweep up

Waste Disposal Method

Land fill in accordance with applicable local, state and federal regulations.

Precautions to Be Taken in Handling and Storing

Protect from sources of ignition.

Avoid contact with concentrated strong acids or alkalies.

Other Precautions

Usual good housekeeping

Section VIII — Control Measures

Respiratory Protection (Specify Type)

None

Ventilation	Local Exhaust	Special
	yes	none
	Mechanical (General)	Other
	to maintain workroom air below TLV	

Protective Gloves

Not required

Eye Protection

recommended

Other Protective Clothing or Equipment

not required

Work/Hygienic Practices

MATERIAL SAFETY DATA SHEET

Grier 2615110932

Identify (Trade Name As Used On Label)

Grier Abrasive Co., Inc.

28A80 PV41

Manufacturer

MSDS Number

7391 S. South Chicago Ave.

CAS Number

Address

Chicago, IL 60619

Date Prepared

7/27/99

1-773) 643-3890

V. Yaksic

Phone Number (For Information)

Prepared By

1-708) 349-8905

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Emergency Phone Number

Telex

SECTION 1 - MATERIAL IDENTIFICATION AND INFORMATION

COMPONENTS - Chemical Name & Common Names (Hazardous Components 1% or greater; Carcinogens 0.1% or greater)	%	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Fused Aluminum Oxide/Aluminum Oxide				
CAS # 1344-28-1	82	10mg/M ³	10mg/M ³	
		(Total Dust)		
Clay # 1332-58-7	9			
Feldspar # 68476-25-5	4			
Borax # 1303-96-4	4			
Dextrin # 9004-53-9	1			
Non-Hazardous Ingredients	100			
TOTAL	100			

SECTION 2 - PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point	n/a	Specific Gravity (H ₂ O = 1)	A/O -1.6 - 2.4
Vapor Pressure (mm Hg and Temperature)	n/a	Melting Point	A/O - 2050 °C
Vapor Density (Air = 1)	n/a	Evaporation Rate (_____ - 1)	n/a
Solubility in Water	n/a	Water Reactive	n/a

Appearance and Odor: Brownish Red No odor

SECTION 3 - FIRE AND EXPLOSION HAZARD DATA

Flash Point and Method Used	None	Auto-ignition Temperature	Flammability Limits in Air % by Volume	LEL	UEL
Extinguisher Media	Non-flammable				
Special Fire Fighting Procedures	Non-flammable				

Unusual Fire and Explosion Hazards: Non-flammable

SECTION 4 - REACTIVITY HAZARD DATA

STABILITY <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable	Conditions To Avoid Use within ANSI B 71.1 guidelines
Incompatibility (Materials to Avoid)	Avoid use with acids
Hazardous Decomposition Products	N/A
HAZARDOUS POLYMERIZATION <input type="checkbox"/> May Occur <input checked="" type="checkbox"/> Will Not Occur	Conditions To Avoid N/A

SECTION 5 - HEALTH HAZARD DATA

PRIMARY ROUTES OF ENTRY	<input checked="" type="checkbox"/> Inhalation <input checked="" type="checkbox"/> Skin Absorption	<input type="checkbox"/> Ingestion <input type="checkbox"/> Not Hazardous	CARCINOGEN LISTED IN	<input type="checkbox"/> NTP <input type="checkbox"/> IARC Monograph	<input type="checkbox"/> OSHA <input type="checkbox"/> Not Listed
HEALTH HAZARDS	Acute: Inhalation - Dust from grinding wheels is classified as nuisance dust. Chronic: Skin - Constant contact may cause slight skin irritation (itching)				
Signs and Symptoms of Exposure	Coughing, eye irritation, itching				
Medical Conditions Generally Aggravated by Exposure					
EMERGENCY FIRST AID PROCEDURES - Seek medical assistance for further treatment, observation and support if necessary.					
Eye Contact	Cleanse eyes with proper eye wash. Get medical attention if persists.				
Skin Contact	Wash area thoroughly with soap and water. Get medical attention if persists.				
Inhalation	Remove to fresh air. Get medical attention as needed.				
Ingestion					

SECTION 6 - CONTROL AND PROTECTIVE MEASURES

Respiratory Protection (Specify Type)	OSHA approved respiratory protection for nuisance dust.				
Protective Gloves	Recommended	Eye Protection	Safety glasses and/or dust shield		
VENTILATION TO BE USED	<input checked="" type="checkbox"/> Local Exhaust recommended to eliminate nuisance dust <input type="checkbox"/> Other (specify)	<input type="checkbox"/> Mechanical (general)	<input type="checkbox"/> Special	N/A	
Other Protective Clothing and Equipment	N/A				
Hygienic Work Practices	Use in accordance with ANSI B 71.1				

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE / LEAK PROCEDURES

Steps to be Taken if Material is Spilled Or Released	Non-toxic
Waste Disposal Methods	Standard landfill in accordance with federal, state and local regulations
Precautions to be Taken in Handling and Storage	Handling and storage in compliance with ANSI B 71.1.1978
Other Precautions and/or Special Hazards	N/A

NFPA Rating	Health 0	Flammability 0	Reactivity 0	Special 0	HMIS Rating	Health	Flammability	Reactivity	Personal Protection
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MATERIAL SAFETY DATA SHEET

Grier 2615585602

Identity (Trade Name As Used On Label)

Grier Abrasive Co., Inc.
 Manufacturer
 123 W. Taft Drive
 Address
 S. Holland, IL 60473
 708-333.6445
 Phone Number (For Information)
 Emergency Phone Number _____ Telex _____

GC100 0V51
 MSDS Number
 CAS Number
 7/27/99
 Date Prepared
 V. Yaksic
 Prepared By

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

SECTION 1 - MATERIAL IDENTIFICATION AND INFORMATION

COMPONENTS - Chemical Name & Common Names (Hazardous Components 1% or greater; Carcinogens 0.1% or greater)	%	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Silicon Carbide CAS# 409-21-2	78	10mg/M ³	10mg/M ³	
		(Total Dust)		
Clay #1332-58-7	12			
Feldspar #68476-25-5	3			
Talc #14807-96-6	5			
Dextrin	2			
Non-Hazardous Ingredients	100			
TOTAL	100			

SECTION 2 - PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point	n/a	Specific Gravity (H ₂ O = 1)	s/c - 2.0 - 2.5
Vapor Pressure (mm Hg and Temperature)	n/a	Melting Point	2400°C
Vapor Density (Air = 1)	n/a	Evaporation Rate (_____ = 1)	n/a
Solubility in Water	n/a	Water Reactive	

Appearance and Odor Greenish Grey no odor

SECTION 3 - FIRE AND EXPLOSION HAZARD DATA

Flash Point and Method Used	None	Auto-ignition Temperature	Flammability Limits in Air % by Volume	LEL	UEL
Extinguisher Media	Non-flammable				
Special Fire Fighting Procedures	Non-flammable				
Unusual Fire and Explosion Hazards	Non-flammable				

SECTION 4 - REACTIVITY HAZARD DATA

STABILITY

Stable Conditions
 Unstable To Avoid: Use within ANSI B 71.1 guidelines

Incompatibility

(Materials to Avoid): AVOID USE WITH ACIDS

Hazardous

Decomposition Products: N/A

HAZARDOUS POLYMERIZATION

May Occur Conditions
 Will not Occur To Avoid: N/A

SECTION 5 - HEALTH HAZARD DATA

PRIMARY ROUTES OF ENTRY: Inhalation Ingestion **CARCINOGEN LISTED IN:** NTP OSHA
 Skin Absorption Not Hazardous IARC Monograph Not Listed

HEALTH HAZARDS Acute: Inhalation - Dust from grinding wheels is classified as nuisance dust.

Chronic: Constant contact may cause slight skin irritation (itching).

Signs and Symptoms

Of Exposure: Coughing, Eye Irritation, Itching

Medical Conditions

Generally Aggravated by Exposure

EMERGENCY FIRST AID PROCEDURES - Seek medical assistance for further treatment, observation and support if necessary.

Eye Contact: Cleanse eyes with proper eyewash. Get medical attention if persists.

Skin Contact: Wash area thoroughly with soap and water. Get medical attention if persists.

Inhalation: Remove to fresh air. Get medical attention as needed.

Ingestion:

SECTION 6 - CONTROL AND PROTECTIVE MEASURES

Respiratory Protection (Specify Type): OSHA approved respiratory protection or nuisance dust.

Protective gloves: Recommended

Eye Protection: Safety glasses and/or dust shield.

VENTILATION TO BE USED Local Exhaust: Recommended to eliminate nuisance dust Mechanical (general) Special

Other (specify): N/A

Other Protective Clothing and Equipment: N/A

Hygienic Work Practices: Use in accordance with ANSI B 71.1

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE / LEAK PROCEDURES

Steps to be taken if Material is spilled or released: Non-toxic

Waste Disposal Methods: Standard landfill in accordance with federal, state and local regulations.

Precautions to be taken in Handling and Storage: Handling and storage in compliance with ANSI B 71.1.1988

Other Precautions and/or Special Hazards: N/A

NFPA HMIS
 Rating* Health Flammability Reactivity Special Rating* Health Flammability Reactivity Personal Protection

*Optional



MATERIAL SAFETY DATA SHEET

PART# 66243510659
 DATE PRINTED: FEB 26, 2010
 MSDS NO. RESIN000 OUTBOUND
 Resin Bonded Abrasive Products

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT NAME
 Resin Bonded Abrasive Products
 TRADE NAME

MANUFACTURER(4)
 Saint-Gobain Abrasives, Inc.
 One New Bond Street
 Worcester, MA, 01606
 (508) 795-5000

REVISION DATE
 2/01/2010

MSDS PRINT FORMAT
 NUSA

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE DESCRIPTION	PERCENT	CAS#
Aluminum Oxide, Non-fibrous	40.000- 90.000	1344-28-1
Calcium Oxide	1.000- 5.000	1305-78-8
Carbon Black	0.100- 1.000	1333-86-4
Cured PhenolFormaldehyde Resin	3.000- 12.000	9003-35-4
Fiberglass	0.003- 10.000	65997-17-3
Inorganic Fluorides **	2.000- 10.000	NA

Manganese Compounds(*)	**	1.000-	5.000	NA
@Crystalline Silica, Quartz		0.001-	1.000	14808-60-7
Silicon Carbide		80.000-	90.000	409-21-2
Sodium Silicate		5.000-	15.000	1344-09-8
Sulfates & Sulfides	**	1.000-	10.000	NA
Zinc Compound(*)	**	1.000-	5.000	NA
Zirconium Oxide		30.000-	50.000	1314-23-4

** SUBSTANCE IS A COMPOUND AND/OR MIXTURE

OTHER

(@) Actual grinding tests with wheels known to contain Crystalline Silica did not produce any detectable amount of respirable free Crystalline Silica. The grinding wheel may be comprised of only some of the above. (*) This substance is regulated under Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and the Canadian National Pollution Reduction Initiative (NPRI). The OSHA exposure limit represented in section 15 is for respirable dust and assumed to be worst case exposure to 100% crystalline silica; 10 mg/m3/(%silica+2)

SECTION 3. HAZARDS IDENTIFICATION

INHALATION ACUTE EXPOSURE EFFECTS

Dust may be slightly irritating to eyes and respiratory tract at high concentrations.

INHALATION CHRONIC EXPOSURE EFFECTS

Chronic: May affect breathing capacity.

For products containing phenol/formaldehyde resin, dust generated from intended use may contain trace amounts of phenol and formaldehyde which under excessive exposure may cause skin sensitization and airway obstruction.

For products containing inorganic fluorides:

Excessive exposure to inorganic fluorides have been shown to increase bone density.

EYE CONTACT ACUTE EXPOSURE EFFECTS

Dust may irritate eyes.

SKIN CONTACT ACUTE EXPOSURE EFFECTS

Some may experience skin irritation from dust.

INGESTION ACUTE EXPOSURE EFFECTS

No known adverse effects, but ingestion not recommended.

SECTION 4. FIRST AID MEASURES

INHALATION

Remove to fresh air. If breathing has stopped, give artificial

respiration. Get medical attention immediately .

SKIN CONTACT

Wash affected areas with soap and water. Obtain medical assistance.

EYE CONTACT

Wash with large amounts of water. Obtain first aid and medical assistance, if needed .

INGESTION

Call poison control center, hospital emergency room or physician immediately.

SECTION 5. FIRE FIGHTING MEASURES

FIRE FIGHTING PROCEDURES

Not Applicable

HAZARDOUS PRODUCTS/COMBUSTION

None.

HAZARD RATING SOURCE

NFPA

HEALTH

1

FLAMMABILITY

0

REACTIVITY

0

OTHER

SECTION 6. ACCIDENTAL RELEASE MEASURES

CLEAN-UP

Follow normal clean up procedures.

SECTION 7. HANDLING AND STORAGE

HANDLING

Always HANDLE AND STORE wheels in a CAREFUL manner.

Always VISUALLY INSPECT all wheels before mounting.

Always CHECK MACHINE SPEED against the established maximum safe operating speed MARKED ON THE WHEEL.

Always CHECK MOUNTING FLANGES for equal and correct diameter.

Always USE MOUNTING BLOTTERS.

Always be sure WORK REST is properly adjusted.

Always USE A SAFETY GUARD covering at least one-half of the grinding

wheel.

Always allow NEWLY MOUNTED WHEELS to run at operating speed, with guard in place, for at least one minute before grinding.

Always TURN OFF COOLANT before stopping wheel to avoid creating an out-of-balance wheel.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION PROTECTION

Handle with adequate ventilation. See OSHA 29 CFR 1910.94 (ventilation) and 29 CFR 1910.1000 (Air contaminants).

RESPIRATORY PROTECTION

Respirators are required when airborne contaminant levels exceed the TLV(s).

EYE PROTECTION

Always WEAR SAFETY GLASSES or some type of eye protection when grinding.

OTHER PROTECTION

Use of this product may create elevated sound levels. Hearing protection should be worn where required (see OSHA 29 CFR 1910.134 and other applicable regulations).

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & ODOR

Solid article. Odorless.

SECTION 10. STABILITY AND REACTIVITY

INCOMPATIBILITIES

Avoid acids of all types with a pH < 4.0.

DECOMPOSITION

In use, dust and decomposing odors may be generated. In most cases, the material removed from the workplace will be significantly greater than the grinding wheel components. Coolants may produce other decomposition products.

For products containing phenol and formaldehyde resin, thermal decomposition may produce trace amounts of phenol and formaldehyde.

For products containing inorganic fluorides, thermal decomposition may produce trace amounts of fluorides.

SECTION 11. TOXICOLOGICAL INFORMATION

CARCINOGENICITY

Fiberglass contained in wheels have fiber diameters greater than 10 um, therefore considered non-respirable.

Crystalline Silica, Quartz - IARC-1, NIOSH-X, NTP-R.

LD50/LC50

Values are not appropriate or available.

SECTION 12. ECOLOGICAL INFORMATION

CHEMICAL FATE

Resin bonded materials demonstrate similar degradation rates as Phenolic plastics.

Vitrified products do not appreciably decay.

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Use standard landfill methods consistent with applicable Federal, State, Provincial and local laws.

Products with listed flourides may have slightly soluble flouride swarf.

SECTION 14. TRANSPORT INFORMATION

HAZARD CLASS

This product is not hazardous as defined by the Department of Transportation. (USA)

This product is "Not Regulated" under the Transportation of Dangerous Goods Act. (CAN)

SECTION 15. REGULATORY INFORMATION

EXPOSURE LIMITS/REGULATORY INFORMATION

SUBSTANCE DESCRIPTION	UNITS	OSHA	ACGIH	MOL
Aluminum Oxide, Non-fibrous	MG/M3	15.0000	10.0000	10.0000
Calcium Oxide	MG/M3	5.0000	2.0000	0.0000
Carbon Black	MG/M3	3.5000	3.5000	0.0000
Cured PhenolFormaldehyde Resin	PPM	0.0000	0.0000	0.0000
Fiberglass	FBR/CC	1.0000	0.0000	0.0000
Inorganic Fluorides	MG/M3	2.5000	2.5000	2.5000
Manganese Compounds(*)		0.0000	0.0000	0.0000
@Crystalline Silica, Quartz	MG/M3	0.1000	0.1000	0.0000
Silicon Carbide	MG/M3	10.0000	10.0000	10.0000
Sodium Silicate	MG/M3	15.0000	0.0000	0.0000
Sulfates & Sulfides	MG/M3	0.0000	0.0000	0.0000
Zinc Compound(*)		0.0000	0.0000	0.0000
Zirconium Oxide	MG/M3	5.0000	5.0000	5.0000

LEGEND:

EXPOSURE LIMIT DESCRIPTIONS

CA PROP 65

This product contains chemicals, Crystalline Silica, known to the State of California, to cause cancer.

TSCA

Section 8(b) - Inventory Status

All components of this product are registered under the regulations of the Toxic Substance Control Act.

DOMESTIC SUBSTANCE LIST

All components of this product are found on the Domestic Substance List.

SECTION 16. OTHER INFORMATION

DISCLAIMER

The information and recommendations set forth herein are taken from sources believed to be accurate as of the date hereof; however, the Company makes no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assumes no liability to any user thereof.

KEY TO ABBREVIATIONS:

EQ=Equal

LT=Less Than

GT=Greater Than

AP=Approximately

TR=Trace

ND=No Data available

=



SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name: **Coated Finished Sheets**
Product Code: Coated
UPC Number: 66261126063

Other means of identification:

Recommended use of the chemical and restrictions on use:

Product Use/Restriction: Abrasive Product.

Chemical manufacturer address and telephone number:

	<u>United States</u>	<u>Canada</u>
Manufacturer Name:	Saint-Gobain Abrasives, Inc.	Saint-Gobain Canada, Inc.
Address:	1 New Bond Street Worcester, MA 01615	28 Albert Street, W. Plattsville, ON N0J 1S0
Website:	www.Nortonabrasives.com	www.Nortonabrasives.com
General Phone Number:	800-551-4413	519-684-7441

Emergency phone number:

Emergency Phone Number:	508-795-5000	508-795-5000
CHEMTREC:	For emergencies in the US, call CHEMTREC: 800-424-9300	For emergencies in Canada, call CHEMTREC: 800-424-9300

SECTION 2 : HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with CFR 1910.1200(d)(f):

Signal Word: Not applicable.
GHS Class: Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200
Hazard Statements: Not applicable.
Precautionary Statements: Not applicable.

Hazards not otherwise classified that have been identified during the classification process:

Route of Exposure: Eyes. Skin. Inhalation. Ingestion.
Eye: Causes eye irritation.
Skin: Causes skin irritation.
Inhalation: Prolonged or excessive inhalation may cause respiratory tract irritation.

Ingestion: May be harmful if swallowed. May cause vomiting.

Chronic Health Effects: Prolonged or repeated contact may cause skin irritation.

Signs/Symptoms: Overexposure may cause headaches and dizziness.

Target Organs: Eyes. Skin. Respiratory system. Digestive system.

Aggravation of Pre-Existing Conditions: None generally recognized.

Urea Resin

Chronic Health Effects: For products containing Urea/Formaldehyde resin, dust generated from intended use may contain trace amounts of formaldehyde which under excessive exposure may cause skin sensitization and airway obstruction.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.
Urea Resin	9011-05-6	10 - 30 by weight	
Aluminum Oxide, Non-fibrous	1344-28-1	10 - 30 by weight	215-691-6
Paper - Processed Cellulose	9004-34-6	30 - 60 by weight	232-674-9

SECTION 4 : FIRST AID MEASURES

Description of necessary measures:

Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Remove contacts if present and easy to do. Continue rinsing. Get medical attention, if irritation or symptoms of overexposure persists.

Skin Contact: Immediately wash skin with soap and plenty of water. Get medical attention if irritation develops or persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed:

Other First Aid: Not applicable.

Indication of immediate medical attention and special treatment needed:

Note to Physicians: Not applicable.

SECTION 5 : FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media:

Suitable Extinguishing Media: Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.

Unsuitable extinguishing media: Not applicable.

Specific hazards arising from the chemical:

Hazardous Combustion Byproducts: Not applicable.

Unusual Fire Hazards: Not applicable.

Special protective equipment and precautions for fire-fighters:

Protective Equipment: As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

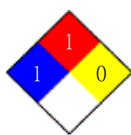
Fire Fighting Instructions: Not applicable.

NFPA Ratings:

NFPA Health: 1

NFPA Flammability: 1

NFPA Reactivity: 0



SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal Precautions: Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Use proper personal protective equipment as listed in Section 8.

Environmental precautions:

Environmental Precautions: Avoid runoff into storm sewers, ditches, and waterways.

Methods and materials for containment and cleaning up:

Spill Cleanup Measures: Not applicable.

Methods and materials for containment and cleaning up:

Methods for containment: Contain spills with an inert absorbent material such as soil or sand. Prevent from spreading by covering, diking or other means. Provide ventilation.

Methods for cleanup: Clean up spills immediately observing precautions in the protective equipment section. Place into a suitable container for disposal. Provide ventilation. After removal, flush spill area with soap and water to remove trace residue.

Reference to other sections:

Other Precautions: Not applicable.

SECTION 7 : HANDLING and STORAGE

Precautions for safe handling:

Handling: Use with adequate ventilation. Avoid breathing vapor and contact with eyes, skin and clothing.

Hygiene Practices: Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

Conditions for safe storage, including any incompatibilities:

Storage: Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, and incompatible substances. Keep container tightly closed when not in use.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Ingredient	Guideline OSHA	Guideline NIOSH	Guideline ACGIH	Quebec Canada	Ontario Canada
Aluminum Oxide, Non-fibrous	PEL-TWA: 5 mg/m3 Respirable fraction (R) PEL-TWA: 15 mg/m3 Total particulate/dust (T)		TLV-TWA: 10 mg/m3	VEMP-TWA: 10 mg/m3 Total particulate/dust (T)	OEL-TWAEV: 10 mg/m3 Total particulate/dust (T)
Paper - Processed Cellulose	PEL-TWA: 15 mg/m3 Total particulate/dust (T) PEL-TWA: 5 mg/m3 Respirable fraction (R)	REL-TWA: 10 mg/m3 Total particulate/dust (T) REL-TWA: 5 mg/m3 Respirable fraction (R)	TLV-TWA: 10 mg/m3	VEMP-TWA: 10 ppm Total particulate/dust (T)	OEL-TWAEV: 10 mg/m3 Total particulate/dust (T)
Ingredient	Alberta Canada	Mexico	British Columbia Canada		
Aluminum Oxide, Non-fibrous	OEL-TWA: 10 mg/m3	MPE-PPT: 0.1 mg/m3 Respirable fraction (R)	OEL-TWA: 3 mg/m3 Respirable fraction (R) OEL-TWA: 10 mg/m3 OEL-TWA: 10 mg/m3 Total particulate/dust (T) OEL-STEL: 20 mg/m3 Total particulate/dust (T)		
Paper - Processed Cellulose	OEL-TWA: 10 mg/m3	LMPE-PPT: 10 mg/m3 LMPE-CT: 20 mg/m3	OEL-TWA: 3 mg/m3 Respirable fraction (R) OEL-TWA: 10 mg/m3 Total particulate/dust (T)		

Appropriate engineering controls:

Engineering Controls: Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Individual protection measures:

Eye/Face Protection: Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

Skin Protection Description: Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.

Respiratory Protection: A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Other Protective: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PPE Pictograms:



SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

Physical State Appearance: Solid article.

Color: Not determined.

Odor:	Odorless.
Odor Threshold:	Not determined.
Boiling Point:	Not determined.
Melting Point:	Not determined.
Density:	Not determined.
Solubility:	Not determined.
Vapor Density:	Not determined.
Vapor Pressure:	Not determined.
Evaporation Rate:	Not determined.
pH:	Not determined.
Viscosity:	Not determined.
Coefficient of Water/Oil Distribution:	Not determined.
Flammability:	Not determined.
Flash Point:	None.
Lower Flammable/Explosive Limit:	Not applicable.
Upper Flammable/Explosive Limit:	Not applicable.
Auto Ignition Temperature:	Not applicable.
Explosive Properties:	Excessive dust accumulation could present a potential combustible dust hazard.
VOC Content:	Not determined.

SECTION 10 : STABILITY and REACTIVITY

Reactivity:

Reactivity: Not applicable.

Chemical Stability:

Chemical Stability: Stable under normal temperatures and pressures.

Possibility of hazardous reactions:

Hazardous Polymerization: Not reported.

Conditions To Avoid:

Conditions to Avoid: Heat, flames, incompatible materials, and freezing or temperatures below 32 deg. F.

Incompatible Materials:

Incompatible Materials: Oxidizing agents. Strong acids and alkalis.

Hazardous Decomposition Products:

Special Decomposition Products: Not applicable.

SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Acute Toxicity: This product has not been tested for its toxicity.

Carcinogens:							MEXICO
	ACGIH	NIOSH	OSHA	IARC	NTP		
Aluminum Oxide, Non-fibrous	A4 Not Classifiable as a Human Carcinogen	No Data	No Data	No Data	No Data		A4 Not Classifiable as a Human Carcinogen

Urea Resin :

RTECS Number: YU1610000

Eye: Eye - Rabbit Standard Draize test.: 100 uL/24H [severe] (RTECS)

Skin: Administration onto the skin - Rabbit Standard Draize test.: 500 mg/24H [severe]
Administration onto the skin - Rat LD50 : >2100 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

Inhalation: Inhalation - Rat LC50 : >167 mg/m3/4H [Details of toxic effects not reported other than lethal dose value] (RTECS)

Ingestion: Oral - Rat LD50 : 8394 mg/kg [Details of toxic effects not reported other than lethal dose value]
Oral - Mouse LD50 : 6361 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

Aluminum Oxide, Non-fibrous :

RTECS Number: BD1200000

Inhalation: Inhalation - Rat TCLo: 200 mg/m3/5H/28W (Intermittent) [Lungs, Thorax, or Respiration - Structural or functional change in trachea or bronchi; Lungs, Thorax, or Respiration - Chronic pulmonary edema; Related to Chronic Data - death] (RTECS)

Paper - Processed Cellulose :

RTECS Number: FJ5691460

Inhalation: Inhalation - Rat LC50: >5800 mg/m3/4H [Details of toxic effects not reported other than lethal dose value] (RTECS)

Ingestion: Oral - Rat LD50: >5 gm/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity: Please contact the phone number or address of the manufacturer listed in Section 1 for information on ecotoxicity.

SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

Waste Disposal: Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

SECTION 14 : TRANSPORT INFORMATION

UN number: Not regulated as hazardous material for transportation.

UN proper shipping name: Not regulated as hazardous material for transportation.

Transport hazard class(es): Not regulated as hazardous material for transportation.
Packing group: Not regulated as hazardous material for transportation.
Environmental hazards: Not regulated as hazardous material for transportation.
Special precautions for user: Not regulated as hazardous material for transportation.

SECTION 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product:

Inventory Status

	Japan ENCS	EINECS Number	South Korea KECL	Australia AICS	Canada DSL
Urea Resin					Listed
Aluminum Oxide, Non-fibrous	(1) -23		KE-01012	Listed	Listed
Paper - Processed Cellulose		232-674-9			Listed

	TSCA Inventory Status				
Urea Resin	Listed				
Aluminum Oxide, Non-fibrous	Listed				
Paper - Processed Cellulose	Listed				

Aluminum Oxide, Non-fibrous :

Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List: 0.1%.50(1298)

Aluminum Oxide, Non-fibrous :

EC Number: 215-691-6

Paper - Processed Cellulose :

EC Number: 232-674-9

State Right To Know

	RI	MN	IL	PA	MA
Aluminum Oxide, Non-fibrous	Listed	Listed	No Data	Listed	Listed
Paper - Processed Cellulose				Listed	Listed

	NJ				
Aluminum Oxide, Non-fibrous	Listed: NJ Hazardous List; Substance Number: 2891				

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard: 1
HMIS Fire Hazard: 1
HMIS Reactivity: 0
HMIS Personal Protection: 1

Health Hazard	1
Fire Hazard	1
Reactivity	0
Personal Protection	1

SDS Creation Date: June 11, 2018

SDS Revision Date: June 11, 2018

SDS Revision Notes: GHS Update

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