SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Coated Abrasive
MSDS Manufacturer Number: CA_All
Manufacturer Name: Saint-Gobain Abrasives, Inc.
Address: 1 New Bond Street
         Worcester, MA 01615
Website: www.Nortonabrasives.com
General Phone Number: 508-795-5000
Emergency Phone Number: 508-795-5000

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

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<th>Chemical Name</th>
<th>CAS#</th>
<th>Ingredient Percent</th>
<th>EC Num.</th>
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<td>Phenol</td>
<td>108-95-2</td>
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<td>203-632-7</td>
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<tr>
<td>Crystalline Silica, Quartz</td>
<td>14808-60-7</td>
<td>1 - 5 by weight</td>
<td>238-878-4</td>
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<tr>
<td>Fiberglass</td>
<td>65997-17-3</td>
<td>30 - 60 by weight</td>
<td>266-046-0</td>
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<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>5 - 10 by weight</td>
<td>200-001-8</td>
</tr>
<tr>
<td>Calcium carbonate</td>
<td>1317-65-3</td>
<td>1 - 5 by weight</td>
<td>215-279-6</td>
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<tr>
<td>Epoxy resin</td>
<td>25068-38-6</td>
<td>1 - 5 by weight</td>
<td></td>
</tr>
<tr>
<td>Calcium Silicate</td>
<td>13983-17-0</td>
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<td>237-772-5</td>
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<tr>
<td>Cotton</td>
<td>No Data</td>
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<td>Polyester</td>
<td>25038-59-9</td>
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<tr>
<td>Inorganic fluorides</td>
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<tr>
<td>Aluminum Oxide, Non-fibrous</td>
<td>1344-28-1</td>
<td>10 - 30 by weight</td>
<td>215-691-6</td>
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<tr>
<td>Phenol formaldehyde polymer</td>
<td>9003-35-4</td>
<td>10 - 30 by weight</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 3: HAZARDS IDENTIFICATION

Potential Health Effects:
- **Eye:** Dust may cause slight irritation.
- **Skin:** Dust from this product may cause temporary mechanical irritation.
- **Inhalation:** Dusts from this product may cause mechanical irritation of the nose, throat and respiratory tract.
- **Ingestion:** Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances.
- **Chronic Health Effects:** Chronic health effects are not expected as long as good hygiene and proper safety precautions are practiced.

**Fiberglass**

Inhalation: Fiberglass contained in wheels have fiber diameters greater than 10 um, therefore considered non-respirable.
Phenol formaldehyde polymer

Chronic Health Effects: Dust generated from intended use may contain trace amounts of phenol and formaldehyde which under excessive exposure may cause skin sensitization and airway obstruction.

SECTION 4 : FIRST AID 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. 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 dust from cutting or drilling is inhaled, remove the affected person to fresh air. If symptoms persist, get medical attention.

Ingestion: Accidental ingestion of this material is unlikely. If this does occur, watch person for several days to make sure intestinal blockage does not occur. If symptoms persist, call a physician.

Note to Physicians: No information available.

SECTION 5 : FIRE FIGHTING MEASURES

Flammable Properties: Non Flammable.

Flash Point: Does not apply.

Auto Ignition Temperature: Not determined.

Lower Flammable/Explosive Limit: Not available.

Upper Flammable/Explosive Limit: Not available.

Extinguishing Media: Use any extinguishing media appropriate for the surrounding fires.

Unsuitable Media: None.

Protective Equipment: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA Ratings:

NFPA Health: 1

NFPA Flammability: 0

NFPA Reactivity: 1

NFPA Other:

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Methods for containment: Containment of this material should not be necessary.

Methods for cleanup: Shovel or sweep up for re-use or disposal. Avoid creating dusty conditions. Evaluate residue to determine if it is a hazardous waste by characteristic. Dispose of in accordance with Local, State, Federal and Provincial regulations.

SECTION 7 : HANDLING and STORAGE

Handling: Handle with adequate ventilation for nuisance dust.

Storage: No special storage conditions required.

Hygiene Practices: Wear suitable gloves and eye/face protection.

SECTION 8 : EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls: General dilution ventilation and/or local exhaust ventilation should be provided as necessary to maintain exposures below occupational exposure limits.

Eye/face Protection: Always WEAR SAFETY GLASSES or some type of eye protection when grinding.

Skin Protection Description: Protective gloves. Long sleeved shirt and long pants.

Respiratory Protection: When workers are facing airborne particulate/dust concentrations above the exposure limit they must use appropriate certified respirators. A properly fitted NIOSH approved disposable N 95 type dust respirator or better is recommended.

Other Protective: 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).

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice.
## EXPOSURE GUIDELINES

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Guideline OSHA</th>
<th>Guideline NIOSH</th>
<th>Guideline ACGIH</th>
<th>Quebec Canada</th>
<th>Ontario Canada</th>
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</thead>
<tbody>
<tr>
<td>Phenol</td>
<td>PEL-TWA: 5 ppm</td>
<td>Skin: Yes.</td>
<td>TLV-TWA: 0.025</td>
<td>VEMP-TWA: 0.1</td>
<td>OEL-TWADEV: 0.05</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>mg/m3 Respirable</td>
<td>mg/m3 Respirable fraction (R)</td>
<td>mg/m3 Respirable fraction (R)</td>
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<tr>
<td>Crystalline Silica, Quartz</td>
<td>PEL-TWA: 1 f/cc as Continuous filament glass</td>
<td>TLV-TWA: 1 f/cc as Continuous filament glass</td>
<td>VEMP-TWA: 5 ppm</td>
<td>Skin: Yes.</td>
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<tr>
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</tr>
<tr>
<td>Fiberglass</td>
<td>PEL-TWA: 0.75 ppm</td>
<td>PEL-STEL: 2 ppm</td>
<td>TLV-Ceiling/Peak: 0.3 ppm</td>
<td>VEMP-Ceiling/Peak: 2 ppm</td>
<td>OEL-Cev: 0.3 ppm</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Skin: Yes.</td>
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</tr>
<tr>
<td>Formaldehyde</td>
<td>PEL-TWA: 0.3 ppm</td>
<td>PEL-STEL: 2 ppm</td>
<td>TLV-TWA: 0.1 mg/m3</td>
<td>VEMP-TWA: 0.1 mg/m3</td>
<td>OEL-TWADEV: 0.05 mg/m3</td>
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<td></td>
<td></td>
<td></td>
<td>Skin: Yes.</td>
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<tr>
<td>Calcium carbonate</td>
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<td>Skin: Yes.</td>
<td>LMPE-PPT: 5 ppm</td>
<td>VEMP-TWA: 0.1 mg/m3</td>
<td>OEL-TWADEV: 0.05 mg/m3</td>
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<td></td>
<td></td>
<td>LMPE-CT: 10 ppm</td>
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<tr>
<td>Crystalline Silica, Quartz</td>
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<td>OEL-STEL: 1 mg/m3</td>
<td>LMPE-PPT: 0.1 mg/m3</td>
<td>OEL-STEL: 1 mg/m3</td>
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<td>Resinable fraction (R)</td>
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<tr>
<td>Formaldehyde</td>
<td>OEL-TWA: 0.75 ppm</td>
<td>OEL-STEL: 2 ppm</td>
<td>LMPE-CT/Pico: 2 ppm</td>
<td>VEMP-STEL: 0.1 ppm</td>
<td>OEL-SST: 0.1 ppm</td>
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<tr>
<td>Calcium carbonate</td>
<td>OEL-TWA: 10 mg/m3</td>
<td></td>
<td>LMPE-PPT: 0.1 mg/m3</td>
<td>OEL-STEL: 10 mg/m3</td>
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<td>Resinable fraction (R)</td>
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<tr>
<td>Aluminum Oxide, Non-fibrous</td>
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<td>OEL-STEL: 1 mg/m3</td>
<td>VEMP-TWA: 0.1 mg/m3</td>
<td>OEL-STEL: 1 mg/m3</td>
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<td>Total particulate/dust (T)</td>
<td>Total particulate/dust (T)</td>
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<tr>
<td>Calcium carbonate</td>
<td>OEL-TWA: 10 mg/m3</td>
<td></td>
<td>LMPE-PPT: 0.1 mg/m3</td>
<td>OEL-STEL: 10 mg/m3</td>
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<td>OEL-STEL: 1 mg/m3</td>
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<td>Aluminum Oxide, Non-fibrous</td>
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<td>VEMP-TWA: 0.1 mg/m3</td>
<td>OEL-STEL: 1 mg/m3</td>
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<td>Total particulate/dust (T)</td>
<td>Total particulate/dust (T)</td>
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</tr>
</tbody>
</table>

## SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

- **Physical State Appearance:** Solid article.
- **Odor:** Odorless.
- **Flash Point:** Does not apply.
- **Auto Ignition Temperature:** Not determined.

## SECTION 10 : STABILITY and REACTIVITY

- **Chemical Stability:** Stable under normal conditions.
- **Hazardous Polymerization:** Hazardous polymerization does not occur.
- **Conditions to Avoid:** Keep away from heat, sparks, or open flame.
- **Special Decomposition Products:** In use, dust and decomposing odors may be generated. In most cases, the material removed from the workplace will be significantly greater than the sandpaper components. Coolants may produce other decomposition products. Thermal decomposition may produce trace amounts of ammonia and formaldehyde.
SECTION 11 : TOXICOLOGICAL INFORMATION

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

**Aluminum Oxide, Non-fibrous:**

- ACIGH: A4 Not Classifiable as a Human Carcinogen
- NIOSH: No Data
- OSHA: No Data
- IARC: No Data
- NTP: No Data

**Phenol:**

- RTECS Number: SJ3325000
- Eye: Eye - Rabbit Standard Draize test: 5 mg
  Eye - Rabbit Rinsed with water: 5 mg/30S (RTECS)
- Skin: Administration onto the skin - Rabbit Open irritation test: 535 mg
  Administration onto the skin - Rabbit Standard Draize test: 100 mg
  Administration onto the skin - Rat LD50: 669 mg/kg [Behavioral - Tremor Kidney/Ureter/Bladder - Hematuria Skin and Appendages - Cutaneous sensitization, experimental (After topical exposure)]
  Administration onto the skin - Rat LD50: 1500 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Crystalline Silica, Quartz:**

- RTECS Number: VV7330000

**Fiberglass:**

- RTECS Number: LK3651000

**Formaldehyde:**

- RTECS Number: LP8925000
- Eye: Eye - Rabbit Standard Draize test: 750 ug/24H
  Eye - Rabbit Standard Draize test: 750 ug
  Eye - Rabbit Standard Draize test: 10 mg
  Eye - Rabbit Standard Draize test: 37% (RTECS)
- Skin: Administration onto the skin - Rabbit Open irritation test: 540 mg
  Administration onto the skin - Rabbit Standard Draize test: 50 mg/24H (RTECS)

**Inhalation:**

- Inhalation - Mouse LC50: 177 mg/m3 [Details of toxic effects not reported other than lethal dose value]
  Inhalation - Rat LC50: 316 mg/m3 [Details of toxic effects not reported other than lethal dose value]
  Inhalation - Mouse LC50: 177 mg/m3/4H [Details of toxic effects not reported other than lethal dose value]
  Inhalation - Rat LC50: 316 mg/m3/4H [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Ingestion:**

- Oral - Rat LD50: 317 mg/kg [Behavioral - Convulsions or effect on seizure threshold]
  Oral - Mice LD50: 270 mg/kg [Details of toxic effects not reported other than lethal dose value]
  Oral - Rat LD50: 512 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

**Calcium carbonate:**

- RTECS Number: EV9580000

**Epoxy resin:**

- RTECS Number: SL6475000
  Eye: Eye - Rabbit Standard Draize test: 100 mg [mild] (RTECS)
  Oral - Rat LD50: 11400 mg/kg [Behavioral - Somnolence (general depressed activity) Lungs, Thorax, or Respiration - Dyspnea Nutritional and Gross Metabolic - Weight loss or decreased weight gain]
  Oral - Mouse LD50: 500 mg/kg [Behavioral - Tremor Liver - Other changes Kidney/Ureter/Bladder - Other changes]
  Oral - Rat LD50: 500 mg/kg [Behavioral - Tremor Liver - Other changes Kidney/Ureter/Bladder - Other changes] (RTECS)

**Carcinogenicity:**

- IARC: Group 1: Carcinogenic to humans.
  NTP: Reasonably anticipated to be a human carcinogen.
  OSHA: Designated carcinogen (RTECS)
Calcium Silicate:
RTECS Number: ZC9750000

Polyester:
RTECS Number: TR2725000

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)

Phenol formaldehyde polymer:
RTECS Number: SM8542500
Skin: Administration onto the skin - Rat LD50: >2 gm/kg [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: No ecotoxicity data was found for the product.

SECTION 13: DISPOSAL CONSIDERATIONS
Waste Disposal: Use standard landfill methods consistent with applicable Federal, State, Provincial and local laws.

SECTION 14: TRANSPORT INFORMATION
DOT Shipping Name: Not regulated as hazardous material for transportation.
DOT UN Number: Not regulated as hazardous material for transportation.
IATA Shipping Name: Not regulated as hazardous material for transportation.
Canadian Shipping Name: This product is Not Regulated under the Transportation of Dangerous Goods Act. (CAN).

SECTION 15: REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>Inventory Status</th>
<th>Canada NDSL</th>
<th>Canada DSL</th>
<th>TSCA Inventory Status</th>
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<tbody>
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<td>Phenol</td>
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<td>Crystalline Silica, Quartz</td>
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<tr>
<td>Fiberglass</td>
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<td>Calcium carbonate</td>
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<td>Epoxy resin</td>
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<td>Calcium Silicate</td>
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<tr>
<td>Polyester</td>
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<td>Listed</td>
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<tr>
<td>Aluminum Oxide, Non-fibrous</td>
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<tr>
<td>Phenol formaldehyde polymer</td>
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</table>

Phenol:
Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List: 0.1%.1261(1374)
Section 302 EHS: EPCRA (SARA Title III) Section 302 (40 CFR Part 355) Extremely Hazardous Substances (EHS) Threshold Planning Quantity (TPQ) in pounds.: 500/10,000 Lbs.
Section 313: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.

Crystalline Silica, Quartz:
Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List: 0.1%.1406(1491)

Formaldehyde:
Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List: 0.1%.781(918)
CA PROP 65: Listed: cancer.
Section 302 EHS: EPCRA (SARA Title III) Section 302 (40 CFR Part 355) Extremely Hazardous Substances (EHS) Threshold Planning Quantity (TPQ) in pounds.: 500 Lbs.
Section 313: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.
Aluminum Oxide, Non-fibrous:

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

Phenol:
EC Number: 203-632-7

Crystalline Silica, Quartz:
EC Number: 238-878-4

Fiberglass:
EC Number: 266-046-0

Formaldehyde:
EC Number: 200-001-8

Calcium carbonate:
EC Number: 215-279-6

Calcium Silicate:
EC Number: 237-772-5

Aluminum Oxide, Non-fibrous:
EC Number: 215-691-6

State Right To Know

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<thead>
<tr>
<th>Phenol</th>
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<th>MA</th>
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<tr>
<td>Crystalline Silica, Quartz</td>
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<td>Formaldehyde</td>
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<td>Calcium carbonate</td>
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</tr>
<tr>
<td>Aluminum Oxide, Non-fibrous</td>
<td></td>
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<table>
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<tr>
<th>NJ</th>
<th>Phenol</th>
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<td>Listed: NJ Hazardous EHS List</td>
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SECTION 16 : ADDITIONAL INFORMATION

MSDS Creation Date: August 15, 2009
MSDS Revision Date: April 01, 2015

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