SAINT-GOBAIN

SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

Product Name: MSDS Manufacturer Number: CA_All Address:

General Phone Number: Emergency Phone Number: 508-795-5000 Website: MSDS Creation Date: MSDS Revision Date:

Coated Abrasive Manufacturer Name: Saint-Gobain Abrasives, Inc. 1 New Bond Street Worcester, MA 01615 508-795-5000 www.Nortonabrasives.com August 15, 2009 July 01, 2013



SECTION 2 : COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS# | Ingredient Percent | EC Num. |
|--------------------------------|----------------|--------------------|-----------|
| Inorganic fluorides | Not Applicable | 1 - 5 by weight | |
| Calcium Silicate | 13983-17-0 | 10 - 30 by weight | 237-772-5 |
| Epoxy resin | 25068-38-6 | 1 - 5 by weight | |
| Zirconium dioxide | 1314-23-4 | 1 - 5 by weight | 215-227-2 |
| Precipitated Calcium Carbonate | 471-34-1 | 1 - 5 by weight | 207-439-9 |
| Nylon | No Data | 1 - 5 by weight | |
| Polyester | 25038-59-9 | 10 - 30 by weight | |
| Polymer/solids | No Data | 1 - 5 by weight | |
| Aluminum Oxide, Non-fibrous | 1344-28-1 | 10 - 30 by weight | 215-691-6 |
| Phenol formaldehyde polymer | 9003-35-4 | 10 - 30 by weight | |
| | | | |

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. 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. Event Immediately wash skin with soap and plenty of water. | | |
|--|-----------------------------|--|
| 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. 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. | Potential Health Effects: | |
| 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. 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. | Eye: | Dust may cause slight irritation. |
| 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. 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: | Dust from this product may cause temporary mechanical irritation. |
| irritation and disturbances. irritation and disturbances. Chronic Health Effects: Chronic health effects are not expected as long as good hygiene and proper safety precautions are practiced. 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. | Inhalation: | Dusts from this product may cause mechanical irritation of the nose, throat and respiratory tract. |
| 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. | Ingestion: | |
| 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. | Chronic Health Effects: | |
| 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. | | Dust generated from intended use may contain trace amounts of phenol and formaldehyde which |
| 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. | | under excessive exposure may cause skin sensitization and airway obstruction. |
| the eyes by separating the eyelids with fingers. Get medical attention, if irritation or symptoms of overexposure persists. | SECTION 4 : FIRST AID MEASU | RES |
| 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. | Eye Contact: | the eyes by separating the eyelids with fingers. |
| | Skin Contact: | Immediately wash skin with soap and plenty of water. |

| Jontact: | Immediatei | ly wash skin with soap and pienty of water. | |
|----------|---|---|------|
| | Coated Abrasive Revision: 07/01/2013 | UPC Number: 69957399722 C | A_AI |
| | | | |

| | 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. Remove and wash contaminated clothing before re-use. Avoid getting dust into boots and gloves through wrist bands and pant tucks. |

EXPOSURE GUIDELINES

| Ingredient | Guideline OSHA | Guideline NIOSH | Guideline ACGIH | Quebec Canada | Ontario Canada |
|-----------------------------------|---|---------------------|--|---|------------------------|
| Inorganic fluorides | PEL-TWA 2.5 mg/m3 | REL-TWA 2.5 mg/m3 | TLV-TWA 2.5 mg/m3 | | |
| Calcium Silicate | PEL-TWA: 15 mg/m3 Total particulate/dust (T) PEL-TWA: 5 mg/m3 Respirable fraction (R) | | TLV-TWA: 10 mg/m3 Inhalable fraction (I) TLV-TWA: 3 mg/m3 Respirable fraction (R) | VEMP-TWA: 10 mg/m3 Total particulate/dust (T) VEMP-TWA: 5 mg/m3 Respirable fraction (R) | |
| Zirconium dioxide | | | TLV-TWA: 10 mg/m3 as zirconium compounds | | |
| Precipitated Calcium Carbonate | PEL-TWA: 5 mg/m3 Respirable fraction (R) | | | VEMP-TWA: 10 mg/m3 Total | OEL-TWAEV: 10 ma/m3 |
| Coated Abrasive | | UPC Number: 6995739 | 9722 CA_AI | | |

| | PEL-TWA: 15 mg/m3 Total particulate/dust (T) | | | particulate/dust (T) | OEL-TWAEV: 10 mg/m3 |
|-----------------------------------|--|---|---|---|--|
| 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) |
| Ingredient | Alberta Canada | Mexico | British Columbia Canada | | |
| Precipitated Calcium Carbonate | OEL-TWA: 10 mg/m3 OEL-TWA: 5 mg/m3 Respirable fraction (R) OEL-TWA: 10 mg/m3 Total particulate/dust (T) | LMPE-PPT: 10 mg/m3 Inhalable fraction (I) LMPE-CT: 20 mg/m3 Inhalable fraction (I) | OEL-TWA: 3 mg/m3 Respirable fraction (R) OEL-TWA: 10 mg/m3 Total particulate/dust (T) OEL-STEL: 20 mg/m3 Total particulate/dust (T) | | |
| 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) | | |

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 : | |
|----------------------------------|---|
| ACGIH: | A4 Not Classifiable as a Human Carcinogen |
| NIOSH: | No Data |
| OSHA: | No Data |
| IARC: | No Data |
| NTP: | No Data |
| <u>Calcium Silicate</u> : | |
| RTECS Number: | ZC9750000 |
| Epoxy resin : | |
| RTECS Number: | SL6475000 |
| Eye : | Eye - Rabbit Standard Draize test.: 100 mg [mild] (RTECS) |
| Ingestion: | 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 : 15600 mg/kg [Behavioral - Somnolence (general depressed activity) Lungs, Thorax, or Respiration - Dyspnea Nutritional and Gross Metabolic - Weight loss or decreased weight gain] (RTECS) |
| Zirconium dioxide : | |
| RTECS Number: | ZH8800000 |
| Precipitated Calcium Carbonate : | |
| RTECS Number: | FF9335000 |
| Eye : | Eye - Rabbit Standard Draize test.: 750 ug/24H (RTECS) |
| Skin: | Administration onto the skin - Rabbit Standard Draize test.: 500 mg/24H (RTECS) |
| Ingestion: | Oral - Rat LD50: 6450 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS) |

| 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: DOT UN Number: | Not regulated as hazardous material for transportation. 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

Inventory Status

| | Canada DSL | TSCA Inventory | | |
|--------------------------------|------------|----------------|--|--|
| | | Status | | |
| Calcium Silicate | | Listed | | |
| Epoxy resin | Listed | Listed | | |
| Zirconium dioxide | Listed | Listed | | |
| Precipitated Calcium Carbonate | Listed | Listed | | |
| Polyester | Listed | Listed | | |
| Aluminum Oxide, Non-fibrous | Listed | Listed | | |
| Phenol formaldehyde polymer | Listed | Listed | | |

| | RI | MN | IL | ΡΑ | МА |
|--------------------------------|------------------|------------------------|--|--------------------------|---------------|
| State Right To Know | | | | | |
| EC Number: | 215-691-6 | | | | |
| Aluminum Oxide, Non-fibrous : | | | | | |
| EC Number: | 207-439-9 | | | | |
| Precipitated Calcium Carbonate | : | | | | |
| EC Number: | 215-227-2 | | | | |
| Zirconium dioxide : | | | | | |
| EC Number: | 237-772-5 | | | | |
| <u>Calcium Silicate</u> : | | | | | |
| Canada IDL: | Identified under | the Canadian Hazardo | ous Products Act Ingrec | lient Disclosure List: (| 0.1%.50(1298) |
| Aluminum Oxide, Non-fibrous : | | | | | |
| Canada Reg. Status: | | been classified in acc | ordance with the hazar of the information req | | |
| | | | | | |

| | RI | MN | IL | ΡΑ | МА | I |
|------------|-------|------|--------------------|----|----|---|
| | | | | | | |
| Coated Abr | aviae | LIPC | Number: 6995739972 | | | |

| Zirconium dioxide | | | | | Listed |
|-----------------------------|--------|--------|---------|--------|--------|
| Aluminum Oxide, Non-fibrous | Listed | Listed | No Data | Listed | Listed |
| | | | | | |
| | | | | | |
| | Γ | | | | |

SECTION 16 : ADDITIONAL INFORMATION

MSDS Creation Date: MSDS Revision Date: August 15, 2009 July 01, 2013

 ${\tt Copyright} \circledast$ 1996-2013 Actio Corporation. All Rights Reserved.