

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Abrasive Product Product Name:

MSDS Manufacturer Number: TW_All

Manufacturer Name: Saint-Gobain Abrasives, Inc. Address: 1 New Bond Street Worcester, MA 01615

General Phone Number: 508-795-5000 Emergency Phone Number: 508-795-5000

Website: www.Nortonabrasives.com

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



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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS# | Ingredient Percent | EC Num. |
|-----------------------------|----------------|--------------------|-----------|
| Fiberglass | 65997-17-3 | 1 - 5 by weight | 266-046-0 |
| Inorganic fluorides | Not Applicable | 1 - 5 by weight | |
| Calcium carbonate | 1317-65-3 | 1 - 5 by weight | 215-279-6 |
| Phenol formaldehyde polymer | 9003-35-4 | 10 - 30 by weight | |
| Sulfates/Sulfides | No Data | 1 - 5 by weight | |
| Aluminum Oxide, Non-fibrous | 1344-28-1 | 60 - 100 by weight | 215-691-6 |
| Titanium dioxide | 13463-67-7 | 1 - 5 by weight | 236-675-5 |

SECTION 3: HAZARDS IDENTIFICATION

Potential Health Effects:

Eve: Dust may cause slight irritation.

Skin: Dust from this product may cause temporary mechanical irritation.

Dusts from this product may cause mechanical irritation of the nose, throat and respiratory tract. Inhalation:

Ingestion: $Ingestion\ of\ this\ product\ is\ unlikely.\ However,\ ingestion\ of\ product\ may\ produce\ gastrointestinal$ irritation and disturbances.

Chronic health effects are not expected as long as good hygiene and proper safety precautions are practiced. Chronic Health Effects:

Fiberglass

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

respirable.

Phenol formaldehyde polymer

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

SECTION 4: FIRST AID MEASURES

Eve 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:

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 Other:

NFPA Health: 0 NFPA Flammability: 0 NFPA Reactivity: 1

SECTION 6: ACCIDENTAL RELEASE MEASURES

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

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. Methods for cleanup:

Dispose of in accordance with Local, State, Federal and Provincial regulations.

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.

Storage: No special storage conditions required.

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

SECTION 8 : EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

General dilution ventilation and/or local exhaust ventilation should be provided as necessary to Engineering Controls:

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.

When workers are facing airborne particulate/dust concentrations above the exposure limit they must use appropriate certified respirators. Respiratory Protection:

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.

| Ingredient | Guideline OSHA | Guideline NIOSH | Guideline ACGIH | Quebec Canada | Ontario Canada |
|---------------------------------|---|---|---|---|--|
| Fiberglass | PEL-TWA: 1 f/cc as Continuous filament glass | | TLV-TWA: 1 f/cc as Continuous filament glass TLV-TWA: 5 mg/m3 as Continuous filament glass | | |
| Inorganic fluorides | PEL-TWA 2.5 mg/m3 | REL-TWA 2.5 mg/m3 | TLV-TWA 2.5 mg/m3 | | |
| Calcium carbonate | | | | VEMP-TWA: 10 mg/m3 Total particulate/dust (T) | |
| 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) |
| Titanium dioxide | | | 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 | | |
| Calcium carbonate | OEL-TWA: 10 mg/m3 | | OEL-TWA: 10 mg/m3 Total particulate/dust (T) OEL-TWA: 3 mg/m3 Respirable fraction (R) 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) | | |
| Titanium dioxide | OEL-TWA: 10 mg/m3 Total particulate/dust (T) | MPE-PPT: 0.1 mg/m3 Respirable fraction (R) | OEL-TWA: 10 mg/m3 Total particulate/dust (T) OEL-TWA: 3 mg/m3 Respirable fraction (R) | | |

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.

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 grinding wheel components. Coolants may produce

other decomposition products.

SECTION 11: TOXICOLOGICAL INFORMATION

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

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

Fiberglass:

 ${\tt RTECS\ Number:}$ LK3651000

<u>Calcium carbonate</u>:

RTECS Number: EV9580000

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 1 (RTECS)

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

(RTECS)

Aluminum Oxide, Non-fibrous

RTECS Number: BD1200000

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) Inhalation:

Titanium dioxide:

XR2275000 RTECS Number:

Skin: Skin - Human Standard Draize test. : 300 ug/3D-I - [mild] (RTECS)

Inhalation - Rat TCLo - Lowest published toxic concentration: 1 mg/kg - [Lungs, Thorax, or Respiration - Other changes Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of Inhalation:

inflammation] (RTECS)

Oral - Rodent rat TDLo - Lowest published toxic dose: 60 gm/kg - [Gastrointestinal - Hypermotility, diarrhea Gastrointestinal - Other changes] (RTECS) Ingestion:

SECTION 12: ECOLOGICAL INFORMATION

Biodegradation: 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.

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

Canada Reg. Status: Controlled - Class: D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products

Regulations and the MSDS contains all of the information required by the Controlled Products

Regulations.

Fiberglass:

TSCA Inventory Status: Listed Canada DSL: Listed EC Number: 266-046-0

<u>Calcium carbonate</u>:

TSCA Inventory Status: Listed Massachusetts: Listed Pennsylvania: Listed Canada NDSL: Listed EC Number: 215-279-6

Phenol formaldehyde polymer:

TSCA Inventory Status: Listed Canada DSL: Listed

Aluminum Oxide, Non-fibrous:

Listed TSCA Inventory Status: EINECS Number: 262-373-8

New Jersey: Listed: NJ Hazardous List; Substance Number: 2891

Massachusetts: Pennsylvania: Listed Minnesota: Listed Illinois: No Data Rhode Island: Listed Canada DSL: Listed

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

EC Number: 215-691-6

<u>Titanium dioxide</u>:

TSCA Inventory Status: Listed No Data New Jersey: Massachusetts: Listed Pennsylvania: Listed Listed Minnesota: Illinois: No Data Rhode Island: Listed Canada DSL: Listed EC Number: 236-675-5

SECTION 16: ADDITIONAL INFORMATION

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

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