

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Vitrified Abrasive Product**

MSDS Manufacturer Number: 983468_BA_Vit

Manufacturer Name: Saint-Gobain Abrasives, Inc.

Address: 1 New Bond Street Worcester, MA 01615

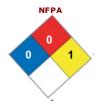
General Phone Number: 508-795-5000

Emergency Phone Number: 508-795-5000

Website: www.Nortonabrasives.com

MSDS Creation Date: June 17, 2011 MSDS Revision Date: July 01, 2013

(M)SDS Format:



| HMIS | | | |
|------------------------|---|--|--|
| Health Hazard | 1 | | |
| Fire Hazard | 0 | | |
| Reactivity | 1 | | |
| Personal Protection | x | | |

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS# | Ingredient Percent | EC Num. | |
|-----------------------------|------------|--------------------|-----------|--|
| Aluminum Oxide, Non-fibrous | 1344-28-1 | 60 - 100 by weight | 215-691-6 | |
| Amorphous Silica, Fused | 60676-86-0 | 10 - 30 by weight | 262-373-8 | |

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: May affect breathing capacity.

SECTION 4: FIRST AID MEASURES

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. Eve Contact:

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.

Accidental ingestion of this material is unlikely. If this does occur, watch person for several days to Ingestion:

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.

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or Protective Equipment:

equivalent) and full protective gear

NFPA Ratings:

0 NFPA Health: 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:

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

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

maintain exposures below occupational exposure limits.

Eve/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.

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

Other Protective:

| 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) VEMP-TWA: 10 mg/m3 Total particulate/dust (T) | TWAEV-TWA: 10 mg/m3 (Total particulate/dust) OEL-TWAEV: 10 mg/m3 Total particulate/dust (T) |
| Amorphous Silica, Fused | OSHA PEL-TWA 0.1 mg/m3 | REL-TWA: 0.05 mg/m3 (Respirable) | ACGIH TLV-TWA 0.1 mg/m3 | VEMP-TWA: 0.1 mg/m3 (Respirable) VEMP-TWA: 0.1 mg/m3 Respirable fraction (R) | TWAEV-TWA: 0.1 mg/m3 (Respirable) OEL-TWAEV: 0.1 mg/m3 Respirable fraction (R) |
| Ingredient | Alberta Canada | Mexico | British Columbia Canada | | |
| Aluminum Oxide, Non- fibrous | OEL-TWA: 10 mg/m3 | VEMP-TWA: 10 mg/m3 (Total particulate/dust) LMPE-PPT: 10 mg/m3 | 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) | | |
| Amorphous Silica, Fused | OEL-TWA: 0.1 mg/m3 Respirable fraction (R) | VEMP-TWA: 0.1 mg/m3 (Respirable) LMPE-PPT: 0.1 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.

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 Special Decomposition Products:

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 | |
| Amorphous Silica, Fused | No Data | NIOSH carcinogen | No Data | No Data | No Data | |

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; Inhalation:

Related to Chronic Data - death] (RTECS)

Amorphous Silica, Fused:

RTECS Number: "VV7328000"

 $Inhalation - Rat\ TCLo:\ 197\ mg/m3/6H/26W\ (Intermittent)\ [Lungs,\ Thorax,\ !or\ Respiration\ -\ Changes\ in\ lung\ weight]\ (RTECS)$ Inhalation:

SECTION 12: ECOLOGICAL INFORMATION

Biodegradation: No environmental information found for this 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

Aluminum Oxide, Non-fibrous:

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

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

Amorphous Silica, Fused:

TSCA Inventory Status: Listed

EINECS Number: 262-373-8

Massachusetts: Listed

Rhode Island: Listed

Canada DSL: Listed

Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient Disclosure List: 0.1%.1404(1487)

EC Number: 262-373-8

SECTION 16: ADDITIONAL INFORMATION

MSDS Creation Date: June 17, 2011
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