PART# 66252905367
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
(8) 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/PERSOAL 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 fluorides may have slightly soluble fluoride 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

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EXPOSURE LIMITS/REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>SUBSTANCE DESCRIPTION</th>
<th>UNITS</th>
<th>OSHA</th>
<th>ACGIH</th>
<th>MOL</th>
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<tbody>
<tr>
<td>Aluminum Oxide, Non-fibrous</td>
<td>MG/M3</td>
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<td>10.0000</td>
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<td>Calcium Oxide</td>
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<tr>
<td>Cured PhenolFormaldehyde Resin</td>
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<td>0.0000</td>
<td>0.0000</td>
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<tr>
<td>Fiberglass</td>
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<td>0.0000</td>
</tr>
<tr>
<td>Inorganic Fluorides</td>
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<td>2.5000</td>
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<td>Manganese Compounds(*)</td>
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<tr>
<td>@Crystalline Silica, Quartz</td>
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<td>0.1000</td>
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<td>Silicon Carbide</td>
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<tr>
<td>Sodium Silicate</td>
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<td>Sulfates &amp; Sulfides</td>
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<td>0.0000</td>
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<tr>
<td>Zinc Compound(*)</td>
<td>MG/M3</td>
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<td>0.0000</td>
<td>0.0000</td>
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<tr>
<td>Zirconium Oxide</td>
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<td>0.0000</td>
<td>0.0000</td>
</tr>
</tbody>
</table>
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