Date: 6/17/15

Dear Valued Customer:

In compliance with Federal Hazard Communication Standard 29 CFR1910.1200 and Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA), we enclosed revised Safety Data Sheets (SDS) for Bonded Superabrasive products. The basic categories include:

**BONDED DIAMOND or CUBIC BORON NITRIDE GRINDING WHEELS**

Suppliers of materials listed in Section 313 must notify customers and distributors of these materials and the mixtures containing them.

The SDS contains complete generic information as required by the Federal Regulations. This does not mean all materials listed are present in all Bonded Superabrasive products.

The SDS attached should be forwarded to the individual responsible for plant safety. DO NOT DETACH this cover letter from your SDS packet.

Sincerely,

Jonathan Szucs
Engineering Manager
Advanced Superabrasives Inc.
SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT NAME
Diamond or Cubic Boron Nitride Grinding Wheels.

MANUFACTURER
Advanced Superabrasives Inc..
P.O. BOX 1390
1270 North Main St.
Mars Hill, NC 28754
Tell. # 828-689-3200

Revision Date
06/17/15

SECTION 2. HAZARDS IDENTIFICATION

INHALATION ACUTE EXPOSURE EFFECTS
Dust may be slightly irritating to eyes and respiratory tract at high concentrations.

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 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>SUBSTANCE DESCRIPTION</th>
<th>MAX. %</th>
<th>CAS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper(*)</td>
<td>85.0</td>
<td>7440-50-8</td>
</tr>
<tr>
<td>Graphite Powder</td>
<td>10.0</td>
<td>7782-42-5</td>
</tr>
<tr>
<td>Silver(*)</td>
<td>55.0</td>
<td>7440-22-4</td>
</tr>
<tr>
<td>Silicone Carbide</td>
<td>73.0</td>
<td>409-21-2</td>
</tr>
<tr>
<td>Aluminum Oxide</td>
<td>75.0</td>
<td>1344-28-1</td>
</tr>
<tr>
<td>Nickel(*)</td>
<td>60.0</td>
<td>7440-02-0</td>
</tr>
<tr>
<td>Substance</td>
<td>Amount</td>
<td>CAS Number</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------</td>
<td>------------</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>3.0</td>
<td>7439-98-7</td>
</tr>
<tr>
<td>Cured Phenol Formaldehyde Resin</td>
<td>48.0</td>
<td>9003-35-4</td>
</tr>
<tr>
<td>Calcium Oxide</td>
<td>6.0</td>
<td>1305-78-8</td>
</tr>
</tbody>
</table>

**OTHER**

(*) 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 grinding wheel may be comprised of only some of the above.

**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**
Obtain medical assistance.

**SECTION 5. FIRE FIGHTING MEASURES**

**FIRE FIGHTING PROCEDURES**
N/A

**HAZARDOUS PRODUCTS/COMBUSTION**
None.

**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.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION PROTECTION
Handle with adequate ventilation. See OSHA 29 CFR 1910.1000 (Air contaminants).

RESPIRATORY PROTECTION
Respirators are required when airborne contaminants level exceeds 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 29CFR 1910.134 and other applicable regulations.)

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR
Solid article. Odorless.

SECTION 10. STABILITY AND REACTIVITY

INCOMPATIBLE
N/A

DECOMPOSITION
In use, dusts are generated. In most cases, the airborne material removed from the work piece will be significantly greater than the grinding wheel components. Coolants may produce other decomposition products.
SECTION 11. TOXICOLOGICAL INFORMATION

INHALATION CHRONIC EXPOSURE EFFECTS
Chronic: May affect breathing capacity.

CARCINOGENICITY
Nickel – EPA-A, IARC-2B, NTP-2, NIOSH-X, MAK-A1; Silver – EPA-D; Copper – EPA-D;

LD50/LC50
Values are not appropriate or available.

SECTION 12. ECOLOGICAL INFORMATION

CHEMICAL FATE
Resin bonded materials demonstrate similar degradation rates as Phenolic plastics.

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL
Use Standard landfill methods consistent with applicable Federal, State, Provincial and local laws.

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

<table>
<thead>
<tr>
<th>SUBSTANCE DESCRIPTION</th>
<th>UNITS</th>
<th>OSHA</th>
<th>ACGIH</th>
<th>MOL</th>
<th>MAK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver(*)</td>
<td>MG/M3</td>
<td>0.0100</td>
<td>0.1000</td>
<td>0.1000</td>
<td>0.0100</td>
</tr>
<tr>
<td>Copper(*)</td>
<td>MG/M3</td>
<td>0.1000</td>
<td>0.2000</td>
<td>0.2000</td>
<td>0.1000</td>
</tr>
<tr>
<td>Graphite Powder</td>
<td>MG/M3</td>
<td>10.0000</td>
<td>2.0000</td>
<td>0.0000</td>
<td>6.0000</td>
</tr>
<tr>
<td>Silicon Carbide</td>
<td>MG/M3</td>
<td>10.0000</td>
<td>10.0000</td>
<td>10.0000</td>
<td>4.0000</td>
</tr>
<tr>
<td>Aluminum Oxide</td>
<td>MG/M3</td>
<td>10.0000</td>
<td>15.0000</td>
<td>10.0000</td>
<td>6.0000</td>
</tr>
<tr>
<td>Nickel(*)</td>
<td>MG/M3</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>Calcium Oxide</td>
<td>MG/M3</td>
<td>5.0000</td>
<td>2.0000</td>
<td>0.0000</td>
<td>5.0000</td>
</tr>
<tr>
<td>Cured Phenol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formaldehyde Resin</td>
<td>PPM</td>
<td>5.0000</td>
<td>5.0000</td>
<td>5.0000</td>
<td>5.0000</td>
</tr>
</tbody>
</table>
SECTION 15. REGULATORY INFORMATION (CONTINUED)

EXPOSURE LIMITS/REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>SUBSTANCE DESCRIPTION</th>
<th>UNITS</th>
<th>OSHA</th>
<th>ACGIH</th>
<th>MOL</th>
<th>MAK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molybdenum</td>
<td>MG/M3</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
</tr>
</tbody>
</table>

OTHER

(*) 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 grinding wheel may be comprised of only some of the above.

EXPOSURE LIMIT DESCRIPTIONS
MOL= Ministry of Labor, CAN
MAK= FRG Max. Conc. Values
OSHA= Occ. Safety & Health Admin.

CA PROP 65
This product contains chemicals, Nickel is 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 recommendation set forth herein are taken from sources to be accurate as of the date hereof; however, Advanced Superabrasives Inc. 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.