MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT NAME
Vitrified Superabrasives(CBN) Products

MANUFACTURER
Kure-Grinding Wheel Co., Ltd. 2-3-20 Yoshiurashin-machi, Kure-shi, Hiroshima, Japan Phone:81-823-31-7197

TRADE NAME AND SYNONYMS
Grinding Wheel

B 170 VP2

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>PERCENT</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cubic Boron Nitride BN</td>
<td>3.3</td>
<td>10043-11-5</td>
</tr>
<tr>
<td>Amorphous Silica,Silicon dioxide SiO₂</td>
<td>32.4</td>
<td>7631-86-9</td>
</tr>
<tr>
<td>Silicon Carbide SiC</td>
<td>2.4</td>
<td>409-21-2</td>
</tr>
<tr>
<td>Aluminum Oxide Al₂O₃</td>
<td>54.6</td>
<td>1344-28-1</td>
</tr>
<tr>
<td>Boron Oxide B₂O₃</td>
<td>4.4</td>
<td>1303-86-2</td>
</tr>
</tbody>
</table>

SECTION 3. HAZARDS IDENTIFICATION

HEALTH HAZARDS,
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 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 amount of water. Obtain first aid and medical assistance, if needed.

INGESTION
Call poison control center, and see a hospital emergency room physician immediately.
SECTION 5. FIRE FIGHTING MEASURES

FIRE FIGHTING PROCEDURES
Not applicable

HAZARDOUS PRODUCTS/COMBUSTION
None

SECTION 7. HANDLING AND STORAGE

HANDLING
Always HANDLE AND STORE wheel in a CAREFUL manner. Always VISUALLY INSPECT all wheel 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 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.

SECTION 8. EXPOSE CONTROLS / PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>VENTILATION</th>
<th>LOCAL RECOMMENDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROTECTIVE GLOVES</td>
<td>MECHANICAL(GENERAL) RECOMMENDED</td>
</tr>
<tr>
<td>EYE PROTECTION</td>
<td>AS DESIRED BY USER</td>
</tr>
<tr>
<td>OTHER PROTECTION</td>
<td>Always WEAR SAFETY GLASSES or some type of eye protection when grinding.</td>
</tr>
<tr>
<td></td>
<td>Use of this product may create elevated sound levels. Hearing protection should be worn where required.</td>
</tr>
</tbody>
</table>

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & ODOR
Solid article. Odorless

SECTION 10. STABILITY AND REACTIVITY

INCOMPATIBILITIES
Not applicable.

DECOMPOSITION
Not applicable.

SECTION 11. TOXICOLOGICAL INFORMATION

INHALATION CHRONIC EXPOSURE EFFECTS
Chronic: May affect breathing capacity.

CARCINOGENICITY
Not applicable.

SECTION 12. ECOLOGICAL INFORMATION

CHEMICAL FATE
Not applicable.

SECTION 13. DISPOSAL CONSIDERATION

Use standard landfill methods consistent with applicable Federal, States, Provincial and local laws.

SECTION 14. TRANSPORT INFORMATION

HAZARD CLASS
This product is not hazardous as defined by the Department of Transportation.(USA)