Section 1, Identification

Chemical Name: **CEMENTED CARBIDE PRODUCT with COBALT BINDER**
Trade name (Label Identity): *Whitney Tool Co.* CARBIDE CUTTING TOOL
Common Name: CARBIDE

Section 2, Hazard(s) identification

We do not consider this product in the form it is sold to constitute a physical hazard or a health hazard. Subsequent operations such as abrading, melting, welding, cutting or processing in any other fashion may produce potentially hazardous dust or fume which can be inhaled, swallowed, or come in contact with the skin or eyes.

**EFFECTS OF EXPOSURE:**
No toxic effects would be expected from exposure to the solid form of carbide. Prolonged, repeated exposure to fumes or dusts generated during heating, cutting, brazing or welding may or may not cause adverse health effects associated with the listed constituents in excess of OSHA permissible exposure limits established in 29 CPR Subpart 2 (See Section II)

**PRIMARY ROUTES OF ENTRY**
- **Inhalation** - Remove to fresh air. If condition continues, consult a physician.
- **Eye Contact** - Flush well with running water to remove particulate. Get medical attention.
- **Skin Contact** - Brush off excess dust. Wash area well with soap & water.
- **Ingestion** - Seek medical help if large quantities of material have been ingested.

Section 3, Composition/information on ingredients

<table>
<thead>
<tr>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tungsten Carbide</td>
</tr>
<tr>
<td>Cobalt</td>
</tr>
<tr>
<td>Tantalum Carbide</td>
</tr>
<tr>
<td>Chromium Carbide</td>
</tr>
<tr>
<td>Chromium</td>
</tr>
</tbody>
</table>
Section 4, First-aid measures

Inhalation - Remove to fresh air. If condition continues, consult a physician.

Eye Contact - Flush well with running water to remove particulate. Get medical attention.

Skin Contact - Brush off excess dust. Wash area well with soap & water.

Ingestion - Seek medical help if large quantities of material have been ingested.

Section 5, Fire-fighting measures there is no flashpoint noted for this product. Dusts generated in grinding operations may ignite if allowed to accumulate, and subjected to an ignition source.

Section 6, Accidental release measures there is no data on release of solid metal inhalation hazards may be encountered when product is heated ventilation is required.

Section 7, Handling and storage No restrictions apply.

Section 8, Exposure Limits/personal protection

Personal Protective Equipment:  
Respiratory protection misting or dust condition occurs and T.L.V. as indicated below is exceeded, provide NIOSH approved respirators. Recommend approved safety glasses or goggles when working with dusty material.

Gloves: As Required

Other Clothing or Equipment: As Required

Permissible Exposure Limits

<table>
<thead>
<tr>
<th>Material or Component</th>
<th>Percent by Weight.</th>
<th>OSHA PEL (Mg/M^3)</th>
<th>ACGIH TLV (Mg/M^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tungsten Carbide</td>
<td>41-97% *</td>
<td>---</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td>Cobalt</td>
<td>3-30% *</td>
<td>0.1 mg/m³</td>
<td>0.1 mg/m³</td>
</tr>
<tr>
<td>Tantalum Carbide</td>
<td>0.0-52% *</td>
<td>5 mg/m³</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td>Chromium Carbide</td>
<td>0.0-5.1% *</td>
<td>1 mg/m³</td>
<td>0.5 mg/m³</td>
</tr>
<tr>
<td>Chromium</td>
<td>0.0-4.5% *</td>
<td>1 mg/m³</td>
<td>0.5 mg/m³</td>
</tr>
</tbody>
</table>

*Depends on grade specification
Section 9, Physical and chemical properties

Appearance and Odor: Dark Grey Metal/No Odor:
Boiling Point: N/A  Specific Gravity (H₂O=1): Approx 11.0 - 15.5 (60°F)
Vapor Pressure N/A  Vapor Density (Air=1): N/A
Solubility in Water: Insoluble  % Volatiles by Volume: 0
Evaporation (Butyl Acetate =1): N/A

Section 10, Stability and reactivity

STABILITY: Chemically Stable
INCOMPATIBILITY: Strong oxidizers (Hydrogen peroxide, Fluoride, Iodide, Basic oxide, Oxidized nitrogen etc.)
          Others (Hydrazine, Acetylene, Ammonia etc.)
HAZARDOUS DECOMPOSITION PRODUCTS: Metallic Oxides

Section 11, Toxicological information

EFFECTS OF EXPOSURE: No toxic effects would be expected from exposure to the solid form of carbide. Prolonged, repeated exposure to fumes or dusts generated during heating, cutting, brazing or welding may or may not cause adverse health effects associated with the listed constituents in excess of OSHA permissible exposure limits established in 29 CFR Subpart 2

Regarding carcinogenicity of cemented carbide,

- Cobalt metal with tungsten carbide is listed as probably carcinogenic to humans (2A) by IARC.
- Cobalt is listed as an animal carcinogen (A3) by ACGIH and as possibly carcinogenic to humans (2B) by IARC.
  Cobalt is "known to the state of California to cause cancer." (Proposition 65)
- Chromium is listed as Group 3 (not classifiable as to its carcinogenicity to humans) by IARC.

ACGIH: American Conference of Governmental Industrial Hygienists Inc

*IARC: International Agency for Research on Cancer

Section 12, Ecological information*  None known

Section 13, Disposal considerations*
WASTE DISPOSAL METHOD: Solids – Sale as Scrap for Reuse
Dust, ect. – Follow Federal, State and Local Regulations
Section 14, Transport information* No DOT regulations applicable

Section 15, Regulatory information* see section 8 for exposure limits

Section 16, Other information

USE GOOD HOUSEKEEPING PRACTICES TO PREVENT ACCUMULATIONS OF DUST AND TO KEEP AIRBORNE DUST CONCENTRATIONS AT A MINIMUM. THIS MATERIAL IS POTENTIALLY CONTAMINATED WITH COATINGS SUCH AS OILS FOR PRESERVATIVES AND OTHER CONTAMINANTS. IF THE MATERIAL IS CONTAMINATED, SPECIAL PRECAUTIONS (SUCH AS PROCESS CONTROL AND PERSONAL Protective EQUIPMENT APPROPRIATE TO THE NATURE OF THE SUSPECTED CONTAMINANTS SHOULD BE TAKEN TO AVOID RESULTING EXPOSURES WHEN HANDLING, CUTTING (THERMAL OR MECHANICAL) AND/OR HEATING OR MELTING.

While the information set forth on this material safety data sheet is believed to be accurate, as of the effective date, Whitney Tool Co. makes no representations regarding the accuracy or completeness of the information and assumes no liability for any loss, damage, or injury of any kind which may result from, or arise out of, the use or reliance on the information by any person.

Date prepared April 2018

* Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).

Employers must ensure that SDSs are readily accessible to employees.