

1. IDENTIFICATION

PRODUCT NAME: **Cemented Carbide Product with Cobalt Binder**

SIZES: As applied to all new and reconditioned cutting tools

EMERGENCY TELEPHONE NUMBER: 800-776-6170

Environmental Health & Safety Information: 262-784-6730

EDITION DATE: 06-28-2010

APPROVED BY: Don Rancic

2. INGREDIENTS

INGREDIENT NAME	CAS #	%	TLV*
Tungsten Carbide	12070-12-1	30.0-97.7*	5 mg/m ³ (as W)
Cobalt	7440-48-4	2.0-30.0*	0.1 mg/m ³
Tantalum Carbide	12070-06-3	0-56.4*	5 mg/m ³ (as Ta)
Chromium Carbide	12012-35-0	0-5.1*	5 mg/m ³ (as Cr ³)
<i>Chromium (+3)</i>	<i>7440-47-3</i>	<i>0-4.5*</i>	<i>0.5 mg/m³</i>
<i>*Depends on grade specifications</i>			

3. PHYSICAL DATA

Boiling Point:	NA
Vapor Pressure (mm Hg)	NA
Vapor Density (Air = 1):	NA
Specific Gravity: (H ² O=1)	9.5 to 15.5
Percent Volatile by Volume:	0
Evaporation Rate:	NA
Solubility in Water:	Insoluble
How Best Monitored:	Air Sample
Appearance and Odor:	Dark gray metal / no odor

4. FIRE & EXPLOSION HAZARD DATA

FLASH POINT: NA LOWER (LEL): NA

FLAMMABLE LIMITS IN AIR (%): NA UPPER (UEL): NA

EXTINGUISHING MEDIA: For powder fires, smother with dry sand, dry dolomite, ABC fire extinguisher or flood with water.

AUTO-IGNITION: NA

SPECIAL FIRE FIGHTING PROCEDURES: As with any fire, wear self-contained breathing apparatus to avoid inhalation of hazardous decomposition products from other materials involved.

SPECIAL HAZARDS: NONE

5. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use an appropriate NIOSH approved respirator if airborne dust concentrations exceed the appropriate PEL or TLY. All appropriate requirements set forth in 29CFR 1910.134 should be met.

VENTILATION: Use local exhaust ventilation which is adequate to limit personal exposure to airborne dust to levels which do not exceed the PEL or TLV. If such equipment is not available use respirators as specified above.

PROTECTIVE GLOVES: Protective gloves or barrier cream are recommended when contact with dust or mist is likely. Prior to applying the Barrier cream or use of protective gloves, wash thoroughly.

EYE PROTECTION: Wear approved eye protection whenever using machining tools. If particulates or metal pieces are released into the eyes get immediate medical attention immediately. Use good housekeeping and safe work practices when securing a tool to a machine.

OTHER PROTECTIVE EQUIPMENT: N/A

6. REACTIVITY DATA

STABLE OR UNSTABLE: Stable

INCOMPATIBILITY (MATERIALS TO AVOID): Strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS: NA

DECOMPOSITION TEMPERATURE (0°F): NA

HAZARDOUS POLYMERIZATION: Will Not Occur

CONDITIONS TO AVOID: Avoid high heat grinding, crushing or melting

7. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Ventilate area of spill. Clean up using methods which avoid dust generation such as vacuum (with appropriate filter to prevent airborne dust levels which exceed the PEL or TLV), wet dust mop or clean-up. If airborne dust is generated, use an appropriate NIOSH approved respirator.

WASTE DISPOSAL METHOD: Dispose of in accordance with appropriate government regulations. May be sold as scrap for reclaim.

8. HEALTH HAZARD DATA

ROUTES OF EXPOSURE: Grinding cemented carbide product will produce dust of potentially hazardous ingredients which can be inhaled, swallowed or come in contact with the skin of eyes.

Inhalation: Dust from grinding can cause irritation of the nose and throat. It also has the potential for causing transient or permanent respiratory disease including occupational asthma and interstitial fibrosis, in a small percentage of exposed individuals. It is reported that cobalt dust is the most probable cause of such respiratory diseases. Symptoms include productive cough, wheezing, shortness of breath, chest tightness and weight loss. Interstitial fibrosis (lung scarring) can lead to permanent disability or death. Certain pulmonary conditions maybe aggravated by exposure.

Skin Contact: Can cause an irritation or skin rash due to Cobalt sensitization. Certain skin conditions, such as dry skin, may be aggravated by exposure.

Eye Contact: Can cause irritation.

Ingestion: Reports outside the industry suggest that ingestion of significant amounts of cobalt has the potential for causing blood, heart and other organ problems.

EMERGENCY AND FIRST AID PROCEDURES: Applicable for dusts or mists

Inhalation: If symptoms of pulmonary involvement develop (coughing, wheezing, shortness of breath, etc.), remove from exposure and seek medical attention.

Skin Contact: If irritation or rash occurs, thoroughly wash affected area with soap and water and isolate from exposure. If irritation or rash persists, seek medical attention.

Eye contact: If irritation occurs, flush with copious amounts of water. If irritation persists, seek medical attention.

Ingestion: If substantial quantities are swallowed, dilute with a large amount of water, induce vomiting and seek medical attention.

CARCINOGENIC ASSESSMENT (NTP Annual Report, IARC Monographs, other)
“Cobalt Metal Powder is identified on the CA Prop. 65 list of potential carcinogens.”

9. SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage: Maintain good housekeeping procedures to prevent dust accumulation during grinding. Avoid dust inhalation and direct skin contact with dust.

Other precautions: Clean up using methods which avoid dust generation such as vacuum (with appropriate filter to prevent airborne dust levels which exceed PEL or TLV), wet dust mop or wet cleanup. If airborne dust is generated, use an appropriate NIOSH approved respirator. Wash hands thoroughly after handling, before eating or smoking. Wash exposed skin at the end of work shift. Do not shake clothing, rags or other items to remove dust. Dust should be removed by washing or vacuuming (with appropriate filters) the clothing, rags, or other items. Periodic medical examinations are recommended for individuals regularly exposed to dust or mist.

10. SARA 313

To our knowledge notification is not required because listed materials are in amounts below the threshold reporting value. Your individual facility or reporting practices may vary.

NOTICE: The information and recommendations set forth are made in good faith and are believed to be accurate at the date of preparation. Guhring Corporation makes no warranty expressed or implied.