

Spec Tool  
P.O. Box 2845  
Grand Rapids, MI 49501  
(616) 887-1714

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## MATERIAL SAFETY DATA SHEET

**Chemical Name:** Cemented Carbide Product with Nickel binder  
**Trade Name and Synonyms:** All Spec Tool Titanium Carbide Grades  
**Chemical Family:** Refractory Metal Carbide  
**Molecular Weight:** N/A

## PHYSICAL DATA

<b>Appearance and Odor:</b>	Dark Gray Metal/No Odor		
<b>Boiling Point:</b>	N/A	<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	5.0 to 7.0
<b>Vapor Pressure (mm Hg):</b>	N/A	<b>Percent Volatile by Volume:</b>	0
<b>Vapor Density (Air = 1):</b>	N/A	<b>Evaporation rate:</b>	N/A
<b>Solubility in Water:</b>	Insoluble	<b>How Best Monitored:</b>	Air sample

## HAZARDOUS INGREDIENTS

Material	Percent by WEIGHT		OSHA PEL	ACGIH TLV
Titanium Carbide (limits for Titanium dust)	0.0-97%	*	No limit established at present	
Molybdenum Carbide	0.0-50%	*	15 mg/m <sup>3</sup>	010 mg/m <sup>3</sup>
Nickel	0.0-10%	*	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>

\* Depending on Grade Specifications

## 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 or eyes.

### Effects of Overexposure:

**Inhalation —** Dust from grinding can cause irritation of the nose and throat. Nickel is suspected of causing nasal and lung cancer. Symptoms include pain, bleeding, nasal obstruction, vision impairment, weight loss, and voice resonance change. Certain pulmonary conditions may be aggravated by exposure.

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

**Eye Contact —** Can cause irritation.

**Ingestion —** Current scientific information indicates no adverse effects are likely from ingestion of small amounts of dust generated from these products.

### Emergency and First Aid Procedures: Applicable for dusts or mists.

**Inhalation —** If symptoms develop, 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):** Nickel has been identified as a suspected carcinogen by NTP, IARC or OSHA.

CHEMICAL NAME: Cemented Carbide Product with Nickel binder.

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## REACTIVITY DATA

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**Stability:**

Unstable  
Stable X

**Conditions to Avoid:** N/A

**Incompatibility:** Contact of dust with strong oxidizers may cause cause fire or explosion.

**Materials to Avoid:** Strong acids

**Hazardous Decomposition Products:** None

**Hazardous Polymerization:**

May Occur  
Will Not Occur X

**Conditions to Avoid:** N/A

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## SPILL OR LEAK PROCEDURES

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**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 wet 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.

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## SPECIAL PROTECTION INFORMATION

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**Respiratory Protection:** Use an appropriate NIOSH approved respirator if airborne dust concentrations exceed the appropriate PEL or TLV. All appropriate requirements set forth in 29 CFR 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:** Safety glasses with the side shields or goggles are recommended.

**Other Protective Equipment:** N/A

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## SPECIAL PRECAUTIONS

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**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 clean-up. 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.

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For inquiries call or write:

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For any additional medical information  
consult a medical doctor, or pulmonary  
specialist.