

# SAFETY DATA SHEET

## SECTION 1 – IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Substance Identifier: Cemented Carbide Product with Cobalt Binder  
Product Names: Radnor Bur  
Manufacturer's Name: Radnor Welding Products  
Address: 259 North Radnor - Chester Road - Suite 100  
City, State, and ZIP: Radnor, PA, 19087-5283  
Emergency Telephone No.: 866-734-3438  
Date Prepared: January 2015

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## SECTION 2 – HAZARDS IDENTIFICATION

Chemical Properties: This product is 90-94 percent tungsten carbide and 6-10 percent cobalt. Both of these metal products are listed on OSHA and ACGIH as hazardous elements.

Appearance: Shiny silver gray cylindrical shaped metal with varying colors of surface coating on the cutting edges.

Article Exemption: This product meets the definition of an article under 29 CFR 1910.1200(c), which states: Article means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees.

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## SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Substance Name	Amount by Weight	CAS Number	OSHA TLV	ACGIH
Tungsten Carbide	90--94%	12070-12-1	5 mg/cubic meter	5 mg/ cubic meter
Cobalt	6-10%	7440-48-4	0.05 mg/ cubic meter	0.05 mg/ cubic meter

*\*Depends upon various grade specifications*

## SECTION 4 – FIRST AID MEASURES

First Aid Inhalation: If symptoms of pulmonary involvement develop, remove the exposure and seek medical attention.

First Aid 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.

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

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

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## SECTION 5 – FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Mixture is non-flammable. Extinguishing methods depend upon hazards in vicinity. Use water or dry extinguishing powders, sand, CO <sub>2</sub> or other inert material as extinguishing media. Do not use water if any water-reactive metal powders are nearby.
<b>Special hazards arising from the substance or mixture:</b>	Under rare favoring conditions of particle size, dispersion, concentration, and strong ignition source, tungsten carbide and cobalt powders or dusts may present a fire or explosion hazard.
<b>Advice for firefighters:</b>	Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus appropriate to the surrounding fire conditions.

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## ***SECTION 6 – ACCIDENTAL RELEASE MEASURES***

This section does not apply to solid carbide cutting tools.

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## ***SECTION 7 – HANDLING AND STORAGE***

No special handling or storage is needed for solid carbide cutting tools.

## ***SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION***

Control parameters:	This is a non-combustible, non-reactive solid material. No special monitoring procedures or environmental controls are required.
Exposure controls:	General ventilation requirements under normal and intended conditions of product use
Personal protective equipment:	Respiratory protection for dust and fumes recommended.
Eye protection:	Safety glasses with side shields are recommended when handling when carbide cutting tools are used.
Skin protection:	No special protective clothing is required while handling cemented carbide.
Hygiene measures:	Workers should wash hands before eating, drinking and smoking.

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## ***SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES***

Appearance & Odor:	Dark Gray / No Odor
Vapor Pressure (mm Hg):	N/A
Solubility in Water:	Insoluble
Percent Volatile by Volume:	0
How Best Monitored:	Air Sample
Boiling Point:	N/A
Vapor Density (Air = 1):	N/A
Specific Gravity (H <sub>2</sub> O = 1):	11.0 to 15.5
Evaporation Rate:	N/A

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## ***SECTION 10 – STABILITY AND REACTIVITY***

Stability: Stable  
Incompatibility: Contact of dust with strong oxidizers may cause fires or explosions.  
Hazardous Decomposition Products: None  
Hazardous Polymerization: Will not occur.  
Conditions to Avoid: Contact with incompatible materials.  
Materials to Avoid: Strong Acids, Strong Oxidizers.

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### ***SECTION 11 – TOXICOLOGICAL INFORMATION***

Acute toxicity: May cause eye, skin and respiratory irritation when reduced to fine powder form.  
Chronic health effects: None known.  
National Toxicology Program: Yes ( ) No (X)  
I.A.R.C. Monographs: Yes ( ) No (X)  
OSHA: Yes ( ) No (X)  
LD50/LC50: Not available

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### ***SECTION 12 – ECOLOGICAL INFORMATION***

Environmental effects: No known significant effects or critical hazards  
Mobility: Product is not hazardous to water.  
Other adverse effects: No known significant effects or critical hazards  
AOX: The product does not contain organically bound halogens, which could lead to an AOX value in waste water.

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### ***SECTION 13 – DISPOSAL CONSIDERATIONS***

Methods of disposal: Not a hazardous waste. Disposal of this product should at all times comply with the requirements of environmental protection and waste disposal legislation and can be reclaimed by any metal reclamation company.  
Hazardous waste: To the suppliers knowledge, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

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### ***SECTION 14 – TRANSPORTATION INFORMATION***

No special transportation or handling is required for solid carbide cutting tools.

International transport regulations: ADR/RID/IMDG/IATA classes: Not regulated by any transport mode  
US DOT information: Hazard class: none  
UN/NA #: none  
Required labels: none  
TDG information: Hazard class: none  
UN/NA #: none  
Required labels: none

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### ***SECTION 15 – REGULATORY INFORMATION***

Solid carbide cutting tools are not a regulated product.

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## **SECTION 16 – OTHER INFORMATION**

### **Users Responsibilities**

This SDS provides information consistent with recommended applications of these products and anticipated activities involving the product. It is the user's responsibility to identify and protect against health and safety hazards presented by modification of hardmetal powders and products after manufacture. Individuals handling hardmetal powders should be informed of all relevant hazards and recommended safety precautions, and should have access to the information contained in this SDS.

### **Disclaimer**

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