

**1. Product Identification**

Manufacturer's (Resellers) Name: Watts Regulator Company Date: February 1986  
 Address: Rte. 114 & Chestnut St. Phone: 617-688-1811  
 North Andover, MA 01845  
 Common Name: Cutting and form tool grades of carbide  
 Chemical Name: Refractory Metal Carbide

**2. Hazardous Ingredients Identification**

Ingredient	CAS No.	OSHA PEL	ACHIH TLV	Percent by Weight
Tungsten	7440-38-7	5.0mg/m <sup>3</sup>	5.0mg/m <sup>3</sup> (as W)	37.6 - 97.0
* Cobalt	7440-48-4	0.1mg/m <sup>3</sup>	0.1mg/m <sup>3</sup>	3.0 - 30.0
Tantalum	7440-25-7	5.0mg/m <sup>3</sup> (as Ta)	5.0mg/m <sup>3</sup> (As Ta)	0 - 56.4
Chromium Carbide	7440-47-3	1.0mg/m <sup>3</sup> (as Cr+3)	0.5mg/m <sup>3</sup>	0 - 5.1
* Chromium (+3)	7440-47-3	1mg/m <sup>3</sup>	0.5mg/m <sup>3</sup>	0 - 2.5

Material may include any or all of any combination of above elements.

\* This product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 - Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR, Part 372. The listed toxic chemical(s) are referenced by an asterisk.

**3. Physical Characteristics**

Appearance: Dark gray metal Sp. Gr.: 11.0 - 15.5  
 Boiling Point: N/A Percent Volatile by Vol.: 0  
 Vapor Pressure: N/A Evaporation Rate: N/A  
 Vapor Density: N/A How best Monitored: by Air  
 Solubility in Water: Insoluble

**4. Fire and Explosion Hazard**

Flash Point: N/A  
 Hard cemented Carbide product is not a fire hazard. Dusts generated in grinding operations may ignite if allowed to accumulate and subjected to ignition source.  
 Extinguishing Media: For powder fires, use dry sand, dry dolomite, ABC type fire extinguisher, or flood with Special Firefighting Procedures: For a powder fire contained to a small area, use a respirator (NIOSH) approved for toxic dusts and fumes. For a large fire, firefighters should use self-contained breathing apparatus.

**5. Health Hazards**

Routes of Exposure: Eyes - Particles may irritate eyes if not removed.  
 Ingestion - Reports suggest that ingestion of significant amounts of cobalt has the potential for causing blood, heart and other organ problems.  
 Skin - Can cause irritation or an allergic skin rash due to cobalt sensitization.  
 Inhalation - Dusts from grinding can cause irritation of the nose and throat. Some studies associate periodic inhalation of this respirable dust with the potential for transient respiratory reaction in cobalt hyper-sensitized individual and prolonged excessive inhalation of respirable dust or mist with transient permanent or fatal respiratory disease.

**6. First Aid (Applies to dusts or mists)**

Eyes - Flush eyes with water. If irritation persists, see a physician.  
 Ingestion - If large quantities are ingested, dilute with large quantities of water and induce vomiting only if conscious.  
 Inhalation - If symptoms of pulmonary involvement develop (coughing, wheezing, shortness of breath, etc.) remove from exposure and seek medical attention.  
 Skin - If irritation or rash occurs, thoroughly wash affected area with soap and water and isolate from exposure. If irritation persists, seek medical attention.

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7. Reactivity

Stability: Stable  
Incompatibility: Contact of dust with strong oxidizers may cause fire or explosion.  
Hazardous Decomposition Products: None  
Hazardous Polymerization: Will not occur  
Materials to avoid: Strong Acids

8. Spill or Leak Procedures

Ventilate area of spill. Clean up with methods which avoid dust generation such as a vacuum with appropriate filtering, wet dust mop or wet cleanup. If airborne dust is generated, use a NIOSH approved respirator. May be sold as scrap for reclaim. If material is contaminated after a spill, consult local, state or federal authorities prior to disposal.

9. Personal Protection Information

Eyes - Safety glasses with side shields or goggles are recommended.  
Skin - Protective gloves or barrier cream are recommended when contact with dust or mist is likely.  
Ingestion - Do not swallow.  
Inhalation - Use a NIOSH approved respirator if airborne dust exceed TLV or PEL limits, local and general venting and exhausting during grinding operations should be employed to control dust emissions to within PEL and TLV limits.

10. Special Precautions and Other Comments

Store material away from oxidizers.

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