



# MATERIAL SAFETY DATA SHEET

LOVEJOY TOOL COMPANY, INC.  
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Section 1 Product Information Rev. Level: B Page 1 of 5

Trade Name and Synonyms: Cemented Carbide Product with Cobalt Binder Brazed Tools using Brazing Filler Metal

Chemical Family: Refractory Metal Carbide

Formula:

Section 2 Product Description and Hazardous Ingredients/Identify Information

Material	CAS No.	Percent by Weight	OSHA TLV-TWA	ACGIH TLV-TWA
Tungsten Carbide	12070-12-1	37.6-97*	5 Mg/M3	5 Mg/M3 (as W)
Cobalt	7440-48-4	3-25*	0.05 Mg/M3	0.05 Mg/M3
Tantalum Carbide	12070-06-3	0-56.4*	5 Mg/M3 (as Ta)	5 Mg/M3 (as Ta)
Titanium Carbide	12070-08-5	0-12.6*	----	----
Niobium Carbide	12011-99-3	0-4.3*	----	----
Aluminum Oxide Coating	1344-28-1	0-0.5*	----	10 Mg/M3
Chromium Carbide Coating	12070-08-5	0-0.5*	----	----
Titanium Nitride Coating	25583-20-4	0-0.5*	----	----
Silver	7440-22-4	50.0m	0.01 Mg/M3	0.1 Mg/M3
Cadmium Dust	7440-43-9	16.0m	0.2 Mg/M3	0.05 Mg/M3
Copper Dust	7440-50-8	15.5m	1 Mg/M3	1 Mg/M3
Zinc Dust (as Zinc Oxide)	7440-66-6	15.5m	5 Mg/M3	5 Mg/M3
Nickel Dust	7440-02-0	3.0m	1 Mg/M3	1 Mg/M3

\* Depends on Grade Specifications

m For brazing filler metal on brazed tools. Filler metals are hazardous only in powder form as metal or metal oxide dust.

Section 3 Physical Data

Melting Point F (C): Not applicable Boiling Point: Not applicable  
Specific Gravity (H2O = 1): 11.85-15.35\* 9.52† Vapor Pressure: Not applicable  
% Volatile by Volume: 0 Vapor Density (Air = 1): Not applicable  
Evaporation Rate: Not applicable Solubility in Water: Insoluble  
Appearance and Odor: Dark gray metal, odorless How Best Monitored: Air sample

\* Depends on Grade Specifications

† Brazing Filler Metal

Chronic exposure to Cadmium dusts and fumes may cause mild anemia, inflammation of the nose and throat, behavioral disorders (sleeplessness, loss of appetite, etc.), and significant renal peritubular damage. Cadmium has exhibited teratogenic effects in rats, mice, and hamsters; whether it does so in humans is not known.

Chronic exposure to Nickel dusts and fumes may cause pulmonary irritation and pneumonitis or sensitization dermatitis.

Individuals with Wilson's disease may wish to limit occupational exposure to copper dust.

Cadmium dust is listed by IARC and NTP as a Probable Human Carcinogen.

### Emergency and First Aid Procedures

**Inhalation:** If symptoms of pulmonary involvement develop (coughing, wheezing, dyspnea, 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 eyes with water for at least ten minutes. If irritation persists, seek medical attention.

**Ingestion:** If swallowing of greater than trace amounts is suspected, dilute by drinking large amounts of water. If substantial quantities are ingested, induce vomiting with Ipecac Syrup and seek additional medical attention.

### Section 6

#### Reactivity Data

**Stability:** Stable

**Hazardous Decomposition Products:** None

**Conditions to Avoid:** Not applicable

**Hazardous Polymerization:** Will not occur

**Materials to Avoid:** Strong Acids

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

### Section 7

#### Spill or Leak Procedures

**Steps to be taken in Case Material is Released or Spilled:** Ventilate area of the spill. Decontaminate and/or clean up area using methods, which avoid dust generation such as a high efficiency particulate air (HEPA) vacuum, 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 reclamation.



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**IN CASE OF QUESTIONS PLEASE CALL**

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