



Metal Mfg. Company, Inc.

3314 Carr Street – PO Box 21198

Houston, Texas 77026

Phone – 713.225.9141 Fax – 713.225.5316

Material Safety Data Sheet

Identification

Product Name: A&B Sintered Carbide Bulk Metal
Alloyage : Tungsten, Cobalt, Titanium, Tantalum, Carbon
Specification: No AWS Specification
Manufacturer: A&B Metal Manufacturing Company, Inc.

Section II – Hazardous Ingredients

Tungsten (W)

OSHA PEL: N/A
ACGIH TLV: 0.1Mg/M3 (insoluble compounds)

Appearance: Steel-gray to white metal

Melting Point: 3410 degrees C.

Reactivity Data: Tungsten is incompatible with air and oxidants.

Physiological Effects: Chronic exposure to tungsten dust has caused respiratory disorders characterized by cough, dyspnea and wheezing. There is no correlation between the onset of symptoms, the length of exposure and the development of interstitial fibrosis. Dermatitis, primarily on the sides of the neck, flexor parts of the forearm and the back of the hand were also detected.

Cobalt (CO)

OSHA PEL: 0.1 mg/M3 (metal, fume and dust)
ACGIH TLV: 0.1 mg/M3 (metal, fume and dust)

Appearance: Silver-gray metal

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Melting Point: 1495 degrees C.

Section II – Hazardous Ingredients – Continued

Cobalt (CO) - Continued

Reactivity Data: Cobalt is incompatible with acetylene, hydrazonium, nitrates and oxidants.

Physiological Effects: Cobalt causes a dermatitis of the allergic sensitivity type at points of friction. Cobalt toxicity also results in a progressive, diffuse, interstitial pneumonia with a non-productive cough, dyspnea on exertion, interstitial fibrosis and cell damage. Other workers have experienced a sensitized respiratory disease characterized by cough, wheezing and shortness of breath where upon removal from the environment, the symptoms subside.

Titanium (Ti)

OSHA PEL: 15 mg/M3 (titanium dioxide)

ACGIH TLV: 10 mg/M3 (titanium dioxide, total dust)

Appearance: Lustrous White Metal

Melting Point: 1660 degrees C.

Reactivity Data: Titanium is stable under normal conditions of handling and use.

Physiological Effects: Titanium, its oxides and carbide are physiologically inert. The oxide may cause slight pulmonary irritation.

Additional Comments: Titanium can burn in an atmosphere of carbon dioxide, nitrogen or air. It reacts violently with halocarbons, halogens, carbon dioxide, metal carbonates, aluminum, water and steam at 704 degrees C. Application of water to burning titanium may cause an explosion.

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Section II – Hazardous Ingredients – Continued

Tantalum (Ta)

OSHA PEL: 5mg/M3

ACGIH TLV: 5mg/M3

Appearance: Gray, very hard, malleable, ductile metal

Melting Point: 2996 degrees C.

Reactivity Data: Tantalum is incompatible with BrF₃, fluorine and strong oxidizers. Dry tantalum powder ignites spontaneously in air.

Physiological Effects: Tantalum is inert toward body fluids and tissues and consequently, is nontoxic after industrial exposures. Pulmonary fibrosis was presented by some Russian concentrations of the degree of exposure.

Carbon (C)

OSHA PEL: 5000 ppm (dioxide) 50 ppm (monoxide)

ACGIH TLV: 5000 ppm (dioxide) 50 ppm (monoxide)

Appearance: Black crystals, powder or diamond form

Melting Point: 3652 – 3697 degrees C.

Reactivity Data: Carbon is incompatible with air, metals, oxidants, and unsaturated oils.

Physiological Effects: There are no well-documented health hazards to humans from exposure to carbon.

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