

SafetyDataSheet - Solid Carbide Tools

SECTION 1: IDENTIFICATION

1.1 Product identifier

Product Name | Tungsten Carbide Drill, End Mill, Reamer, and Router Products

Product Description | Cemented Carbide product with Cobalt Binder. Gray Metal/Odorless.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) | Rotary cutting tools for machining and metalworking industries

1.3 Details of the supplier of the safety data sheet

Manufacturer:

Superion Inc

1285 S Patton St

Xenia OH 45385

United States

www.superioninc.com

info@superioninc.com

Telephone (General) | 937-374-0034

1.4 Emergency telephone number: No additional information

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)

Within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200]: this product is considered a manufactured article and is not considered a hazard when used in a manner which is consistent with the labeled directions.

2.2. Label Elements

GHS-US Labeling

No labeling applicable

2.3. Other Hazards

During normal operation and usage, cemented carbide products do not present inhalation, ingestion, or other chemical hazards. However, operations such as grinding, cutting, burning, and welding of such products may release dusts, fumes, or vapors which may present health hazards. The health hazards described below relate to these non-routine operations, as well as exposure to component materials. Wet or dry grinding of cemented carbide products will produce dusts of potentially hazardous ingredients which can be inhaled, swallowed, or come in contact with the skin or eyes. During wet grinding, the dust can be suspended or dissolved in the coolant mist.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SafetyDataSheet - Solid Carbide Tools

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture Name

<u>Product Identifier</u>	<u>%</u>	<u>Classification (GHS-US)</u>
Tungsten carbide (CAS No) 12070-12-1	10 - 94	Not classified
Titanium carbide (TiC) (CAS No) 12070-08-5	0.2 - 53	Not classified
Cobalt (CAS No) 7440-48-4	0 - 20	Acute Tox. 4 (Oral), H302 Acute Tox. 1 (Inhalation:dust,mist), H330 Resp. Sens. 1B, H334 Skin Sens. 1, H317 Carc. 2, H351 Repr. 2, H361 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Nickel (CAS No) 7440-02-0	0 - 15	Skin Sens. 1, H317 Carc. 2, H351 STOT RE 1, H372 Aquatic Chronic 3, H412
Tantalum carbide (TaC) (CAS No) 12070-06-3	0 - 15	Not classified
Niobium carbide (Nb2C) (CAS No) 12011-99-3	0 - 5	Not classified
Chromium (CAS No) 7440-47-3	0 - 3	Comb. Dust, H232
Chromium carbide (Cr3C2) (CAS No) 12012-35-0	0 - 3	Not classified
Aluminum oxide (CAS No) 1344-28-1	0 - 2	Not classified

SafetyDataSheet - Solid Carbide Tools

Boron oxide (B2O3)	(CAS No) 1303-86-2	0 - 2	Repr. 1B, H360
Zirconium	(CAS No) 7440-67-7	0 - 2	Pyr. Sol. 1, H250 Self-heat. 1, H251 Water-react. 1, H260
Molybdenum	(CAS No) 7439-98-7	0 - 2	Comb. Dust, H232

4. FIRST AID INFORMATION

EMERGENCY FIRST AID PROCEDURES:

Inhalation:

Remove individual from immediate work area to a supply of fresh air. At a minimum, use standard ventilation practices around operating machine tools. Consult physician if condition persists.

Eye:

Wear approved eye protection whenever using machining tools. Use good practices when securing tooling in a machine.

5. FIRE FIGHTING MEASURES

FLASH POINT: NA LOWER (LEL): NA

FLAMMABLE LIMITS IN AIR (%): NA UPPER (UEL): NA

EXTINGUISHING MEDIA: Tools and coating are not flammable. Fight fire normally based upon other materials involved.

AUTO-IGNITION: NA

SPECIAL FIRE FIGHTING PROCEDURES: As with any fire, wear self-contained breathing apparatus to avoid inhalation of hazardous decomposition products from other materials that may be involved.

SPECIAL FIRE EXPLOSION HAZARDS: None.

6. ACCIDENTAL RELEASE MEASURES

PROCEDURES TO CONTAIN AND CLEAN UP LEAKS OR SPILLS: Coating is applied to metal tooling and will not be released if tooling is spilled. Pick up and properly store tooling to avoid trip hazard.

REPORTING PROCEDURE: Report all spills in accordance with Federal, State and Local reporting requirements. Superior, Inc. is not aware of any environmental reporting requirements for spilled tooling.

7. HANDLING AND STORAGE

HANDLING AND STORAGE: Store tooling in a dry place. Observe proper lifting techniques for bulk tooling.

SafetyDataSheet - Solid Carbide Tools

8. EXPOSURE CONTROL/PERSONAL PROTECTION

RESPIRATORY PROTECTION: General respiratory protection for dust/fumes

VENTILATION: Local Exhaust: General ventilation

Mechanical (General): May control or enclose work area if appropriate

Special: NA

Other: NA

PROTECTIVE GLOVES: As needed for heat or metal slivers on tooling

EYE PROTECTION: Use safety eye wear around operating machines

OTHER PROTECTIVE CLOTHING: NA

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point @ 760 mm Hg (°C): NA

Vapor Pressure (mm Hg @ 25°C): NA

Vapor Density (Air = 1): NA

Density (grams/cc): NA

Percent Volatile by Volume (%): NA

Evaporation Rate (Butyl Acetate = 1): NA

Physical State: NA

Solubility in Water (% by Weight): NA

pH: NA

Appearance and Odor: Gray Metal / odorless

10. STABILITY AND REACTIVITY

Stable or Unstable: Stable

Incompatibility (materials to avoid): Exposure to strong mineral acids

Hazardous Decomposition Products: NA

Decomposition Temperature: NA

Hazardous Polymerization: Will not occur

Conditions to Avoid: NA

11. TOXICOLOGICAL INFORMATION

THRESHOLD LIMIT VALUE (TLV) AND SOURCE: Superior, Inc. cutting tools are a cobalt - molybdenum - vanadium coated, machined, heat treated metal tool. An extremely small amount of particulate containing cobalt, molybdenum or vanadium from the contact surface may be released during intermittent tool use. The low amount of coating released and the small wear surface make short term exposure at the TLV highly unlikely. Avoid prolonged exposure if ventilation is not present.

12. ECOLOGICAL INFORMATION

Used tooling may be re-coated several times before it reaches end of life. Superior, Inc. recommends returning the tooling for recoating as many times as practical and then recycling the metal tool appropriately at end-of-useful-life. No potential ecological hazards are known.

SafetyDataSheet - Solid Carbide Tools

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Used tooling may be re-conditioned several times before it reaches end of life.

Superion Inc. recommends returning the tooling for re-conditioning as many times as practical and then recycling the metal tool appropriately at end-of-useful-life.

14. TRANSPORTATION INFORMATION

TRANSPORTATION-SHIPPING: The coating on Superion, Inc. cutting tools does not classify the tooling for any hazard class per USDOT regulations. To our knowledge the tooling with coating applied is not a hazardous material. Always ship tools in accordance with 49 CFR, IATA, ICAO, UN regulations or other local regulations that may be required for the base tool material.

15. REGULATORY INFORMATION

Cobalt metal powder is identified on the California Prop 65 list of potential carcinogens.

SARA 313

Notification is not required because the cobalt, vanadium and molybdenum content of the coating are below the threshold reporting value. Reporting requirements may vary based upon your other facility requirements.

16. SDS INFORMATION

Environmental Health & Safety Information: 262-784-6730

EDITION DATE:

05/26/2015

APPROVED BY:

Al Choiniere, President, CEO

NOTICE: The information and recommendations set forth are made in good faith and are believed to be accurate at the date of preparation. Superion Inc. makes no warranty expressed or implied.