

**Striplox™ Router Bits**

Version 2018.04

1. IDENTIFICATION OF THE PRODUCT AND SUPPLIER

Product Name:	Striplox Router Bits
Manufacturer:	A1 Cabinet Supplies Pty Ltd
Address	11 Hermitage Cres Thornlands, QLD 4164 Australia
Manufacturer's Product Code:	7mm – 160.007107 10mm – 160.010107
Use:	Applied Joining System

2. HAZARDS IDENTIFICATION

Not classified as hazardous according to the criteria of the NOHSC.

Material Name:	Cemented Tungsten Carbide with Cobalt Binder
Material Code:	WC
UN No:	None allocated
Hazchem Code:	None allocated
Dangerous Goods Class:	None allocated
Sub Risk Class:	None allocated
Packaging Group:	None allocated
Poison Schedule:	Not scheduled
Chemical Family:	Refractory Metal Carbide
Uses:	Hard metal used in manufacture of durable wear parts such as drill/mill/router bits, burr tools, nozzles, rock and earth drilling parts, rock hammers, hard surfaces and linings, slitter knives, mechanical seal faces, chisel buttons, jaw grips, lead-free fishing weights, etcetera.

3. PHYSICAL APPEARANCE & PROPERTIES

Appearance:	Grey coloured metal solid (or powder); solid metal may appear chrome finished if surface is finely ground.
Odour:	None
PH:	N/A
Physical State:	Solid to about 3000° C (5400° F), depending on particular make-up, boiling point about 6000° C (10,800° F).
Flashpoint:	Not flammable
Flammability limits:	Not applicable. This product is not flammable.
Density:	Where water has a specific gravity of 1, Cemented Tungsten Carbide ranges from about 13 to 15 times that. Density is thus 13 to 15 g/cc, heavier than Lead which is about 11 g/cc.
Solubility in water:	Insoluble
Corrosiveness:	Not corrosive

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4. RESPIRATORY PROTECTIVE EQUIPMENT

Particulate Levels (Cobalt)	Respiratory Protective Equipment
0.05 mg/m ³	Single-use approved dust and mist respirator.
0.5 mg/m ³	Dust mask, except single use respirator.
1 mg/m ³	Dust mask, except single use and quarter-mask respirator. Fume or high efficiency particulate respirator.
5 mg/m ³	High efficiency particulate respirator with full face-piece. Supplied air respirator with a full face-piece, helmet or hood. Self-contained breathing apparatus (SCBA) with full face-piece.
20 mg/ m ³	Powered air-purifying respirator with high efficiency filter with full face- piece. Type 'C' supplied-air respirator with a full face-piece operated in pressure-demand or other positive pressure mode.
Fire Fighting	SCBA with full face-piece operated in pressure-demand or other positive pressure mode.



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5. HEALTH HAZARD DATA

Health Effects

No health hazards are known to exist or have been reported from exposure to this material in its 'solid form', however, grinding a Tungsten Carbide product will produce dust and powder or a mist of potentially hazardous ingredients which may then be inhaled, swallowed, or come into contact with the skin or eyes.

Dust from grinding can cause immediate irritation of the eyes, nose, throat, and skin. Eye, nose and throat contact via the mucous membranes causes irritation including redness, pain, and itching. Pre-existing pulmonary and skin conditions such as emphysema, asthma, bronchitis, dermatitis and eczema may be aggravated by even moderate exposure for some individuals. Acute overexposure in the form of inhalation may cause respiratory tract irritation with wheezing, shortness of breath and difficulty in breathing, and fits of coughing which may produce blood and soreness in the chest. Prolonged or chronic overexposure has the potential for causing transient or permanent respiratory disease including allergic respiratory reaction ("Occupational Asthma"), obstructed airways from build-up of dust in the lungs, and an interstitial fibrosis condition (scarring of the lung) known as "Hard Metal Lung Disease". Permanent respiratory disease can lead to disability or even death.

It is believed that the Cobalt component is the more harmful element of Cemented Tungsten Carbide Product, as is reflected in the Permissible Exposure Limits (PEL) published by the Occupational Safety and Health Administration (OSHA) and the even more conservative Threshold Limit Values (TLV) published by the American Conference of Governmental Industrial Hygienists (ACGIH) shown in section 2. Inhalation of 20 mg/m³ is immediately dangerous to life and health. [The tungsten carbide component itself is actually regulated by the OSHA as a Particulate Not Otherwise Regulated (PNOR). The exposure limits listed for both the OSHA and the ACGIH refer to total dust, of which only a portion is considered respirable.] Actual ingestion of elemental cobalt, itself a metal, may cause gastrointestinal

irritation, diarrhoea, and in significant amounts has the potential for causing blood, heart and other organ problems.

Tungsten Carbide Products in their solid form also do not present a fire hazard. Dusts, however, may present a fire or explosion hazard under rare, favouring conditions of quantity, dispersion, and particle size combined with a strong ignition source. This is not expected to be a problem under normal conditions.

First Aid Measures

Inhalation

If symptoms of pulmonary involvement develop (coughing, wheezing, shortness of breath) remove from exposure area to fresh air immediately. Keep the affected person warm and at rest. Seek medical attention. If breathing has stopped, perform artificial respiration and get medical attention immediately.

Eye Contact

Acute or chronic contact with the eyes will cause conjunctivitis (pink eye) owing to irritation of the thin conjunctive membrane covering the eye. If such irritation occurs, wash eyes immediately with large amounts of suitably warm and clean water (such as at an eye wash station if available), occasionally lifting the upper and lower lids until no evidence of material remains in the eye. In severe cases, C:\Documents and Settings\User\My Documents\Written Documents\MSDS-WC.doc Page 3 of 8 this procedure could take 15 to 20 minutes and professional medical attention should be sought in any event.

Skin

If irritation or rash occurs, remove any contaminated clothing and thoroughly wash affected area with soap and water. If irritation or rash persists, seek medical attention.

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Ingestion

If substantial quantities are swallowed and the person is conscious, give the person large amounts of water to dilute. After water has been swallowed, induce vomiting. Vomiting may not be required if only a very small amount of the substance was ingested, but in this case a physician should be contacted for instruction. Do not attempt to make an unconscious person drink or vomit. Seek medical attention immediately. If molten material comes into contact with skin, do not attempt to remove it. Cool with cold running water until thoroughly cool. Wrap loosely with cold wet towel or bandage and take to hospital or doctor.

First Aid Facilities

Eye wash and normal wash room facilities.

Advice to Doctor

Treat symptomatically.

6. PRECAUTIONS FOR USE

Personal Protection

Respiratory Protection

It is usually safe to not use a dust mask or respirator protection on account of this product. However, if the product is being used in dusty or confined conditions, use of a mask or respirator may be preferred. For help in selecting suitable equipment, consult AS/NZS 1715.

Protective Gloves

Protective gloves are not normally necessary when using this product. However, it is always prudent to wear gloves. For help in selecting suitable equipment, consult AS 2161.

Eye Protection

Protective eyewear is not normally necessary when using this product. However, it is always prudent to use protective eyewear. Consult AS1336 and AS/NZS 1337 for advice on Industrial Eye Protection.

Clothing

This product is essentially safe to use without special protective clothing. However, its use is recommended

as a good industrial practice. Consult AS2919 for advice on Industrial Clothing.

Safety Boots

Wearing safety boots in industrial situations is advisory. Consult AS/NZS2210 for advice on Occupational Protective Footwear.

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7. SAFE HANDLING INFORMATION

Storage & Transport

Cemented Tungsten Carbide Product can be handled and stored without much special attention at all except that one should wash one's hands thoroughly before eating, smoking, or otherwise touching one's face (ex. rubbing one's eyes) in accordance to health information provided in section 3 above. A blackish residue of fine powder does soon accumulate on the hands and skin in handling the product even though it may appear clean and therefore thin rubber or vinyl gloves or similar should be worn to keep clean, especially if handling is to take place routinely and for more than just a few minutes, as part of one's regular employment for example, and most especially if there are any cuts or other skin conditions of the hands which may be exacerbated by the contact with the residue. Minimize free-fall of powder produced when grinding the material (grinding with special grinding wheels being the only method of shaping the very hard metal). Prevent dispersion of dust into the air at all times whether grinding or moving/cleaning up/storing the ground by-product. In addition to the health hazard of breathing any airborne particles, the dust or even fumes may be flammable or explosive, as outlined in section 5. Keep powder accumulations away from sparks, ignition sources, and any fan or device which might disperse the dust into the air. Do not shake clothing, rags, or other items to remove dust. Dust should be removed by washing or vacuuming.



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Fire & Explosion Hazard

Only under very rare and favouring conditions where higher concentrations of finely divided powder or dust accumulate from grinding is there expected to be any fire or explosion hazard when inappropriately exposed to high temperatures or ignition sources. Particle size and dispersion in the air determine the reactivity. Cemented Tungsten Carbide Product, except in this powder or dust form, is not a fire hazard. The National Fire Protection Association (NFPA) hazard ratings for this product are: Health – 1, Fire – 0, Reactivity – 0

Flashpoint

Not flammable.

Flammability Limits

Not applicable. This product is not flammable.

Special Fire Fighting Procedures

Move containers (of powder) from fire area if possible. Cool containers exposed to flame with water from side until fire is well out. Use extinguishing water stream carefully and contain runoff if possible. Fire-fighters should wear National Institute for Occupational Safety and Health (NIOSH) or similarly approved full-face, self-contained breathing apparatus (SCBA) operated in positive pressure mode and full turnout gear. For massive fires, such as in cargo areas or warehouses, use unmanned hose holders and/or monitor nozzles, or else withdraw entirely and let fire burn if large amounts of particulates are believed to be present.

8. DISPOSAL CONSIDERATIONS

Disposal of any materials must be made in accordance with local regulations and it is the responsibility of the waste generator to determine the proper waste disposal procedures to be in compliance with the given local regulations. Tungsten Carbide Product is a valuable material that should be sent to an appropriate reclamation facility if available. Transport Information

9. TRANSPORT INFORMATION

The solid form of Tungsten Carbide Product is safe and therefore its transport is not regulated in Canada or the

United States. No Hazard Class signage or other special labelling is required.

10. CONTACT POINT

A1 Cabinet Supplies Pty Ltd, Brisbane Queensland, Australia	
Emergency Tel No.	+61 7 3306 1863

Disclaimer

The information provided herein is believed to be accurate but it is not warranted to be, whether it originated with A1 Cabinet Supplies Pty Ltd or not. Much of the information contained in this Safety Data Sheet originates from the suppliers, this information cannot be warranted by A1 Cabinet Supplies Pty Ltd or to be correct or appropriate for the recipient's intended use. Recipients are advised to confirm in advance of need that the information is correct, applicable and suitable to their circumstances.

A1 Cabinet Supplies Pty Ltd continuous improvement processes means we routinely incorporate product and process improvements. Please contact A1 Cabinet Supplies Pty Ltd or your local distributor to ensure you have the latest information.