

# Material Safety Data Sheet

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**Company Details:** Dynaweld Industrial Supplies Pty Ltd  
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## IDENTIFICATION

**PRODUCT NAME:** SBA 45 (SILVER BRAZING ALLOY)  
 AWS A5.8 BAg-1 (Cadmium Bearing/Fluxcoated)

**PRODUCTS CODE:** L310 / L303F

**PRODUCT USE:** Silver Brazing Alloys are used for the joining of most ferrous and non-ferrous metals, except aluminium and magnesium. These filler metals are free of cadmium.

## PHYSICAL DATA

**APPEARANCE:** ROD

**MELTING POINT:** SOLIDUS: 605-620 °C  
 LIQUIDUS: 625 °C

**DENSITY:** 9.2 g/cm<sup>3</sup>

**SOLUBILITY IN WATER:** INSOLUBLE

## OTHER PROPERTIES

**STABILITY:** Stable

**MATERIALS TO AVOID:** Acids and acetylene

## CHEMICAL COMPOSITION

<u>ELEMENT</u>	<u>%</u>
Silver	45.00
Zinc	16.00
Cadmium	24.00
Copper	Balance

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**HEALTH HAZARD/FIRST AID INFORMATION**


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**SWALLOWED: Unlikely route of exposure**

Do not induce vomiting. Wash out mouth with water and give plenty of water to drink. If symptoms develop seek medical attention.

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**HEALTH HAZARD/FIRST AID INFORMATION (continued)**


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**EYE: Moderate local irritation may occur due to the zinc oxide component.**

If contact with the eye(s) occurs, wash with copious amount of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If symptoms persist seek medical attention.

**SKIN: Zinc oxide is moderately irritating to the skin.**

Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. If symptoms persist seek medical attention.

**INHALED: Exposure to zinc and copper oxide fumes results in shortness of breath, cough and general respiratory complaints, in addition to nausea and vomiting and aching muscles. General symptoms are similar to influenza – hence ‘metal fume fever’. Symptoms of metal fume fever are often delayed for 3-10 hours and usually disappear after 24 hours rest. Ulceration of the respiratory tract and perforation of the nasal septum can occur.**

If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. Do not give mouth-to-mouth resuscitation. To protect rescuer, use air-viva, oxy-viva or one-way mask. Resuscitate in a well-ventilated area. If symptoms develop seek medical attention.

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**PRECAUTIONS FOR USE**


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Exposure Limits:	Element (STEL)	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm
		(STEL)	(TWA)		
	Copper			0.2	
	Silver			0.1	
	Antimony			0.5	
	Tin			2.0	
	Phosphorous			1.0	

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Eng. Controls: Use in an adequately ventilated area. General factory ventilation is normally sufficient. Local exhaust ventilation will be required in confined areas or where natural ventilation is not sufficient to maintain concentrations below exposure limits.

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### **PERSONAL PROTECTION**

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Respirator: Where sufficient ventilation is not available, avoid breathing fumes by wearing a filter respirator.

Eye Protection: Welding face shield / goggles

Glove Type: Welding Gloves

Clothing: Overalls, eyewash unit, aprons, sleeves, shoulder covers, leggings or spats of pliable flame resistant leather or other suitable materials may also be required in position where these areas of the body will encounter hot metal.

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### **FLAMMABILITY**

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Fire Hazards: Non-combustible. Non-flammable.  
This product is not pyrophoric.

### **SAFE HANDLING INFORMATION**

#### **STORAGE AND TRANSPORT**

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Storage Precautions: Store at room temperature (15 to 25°C recommended). Keep well closed and protected from direct sunlight and moisture. Store away from acids and acetylene.

Transport: Not classified as a Dangerous Good.

### **FIRE/EXPLOSION HAZARD**

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Fire/Explos Hazard: This product is non-flammable and non-combustible. As with many metals and alloys, contact with mineral acids liberates hydrogen, a flammable and explosive gas.

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**FIRE/EXPLOSION HAZARD (continued)**

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**Hazardous Combustion**

**Products:** If involved in a fire generated by other means, resulting in temperatures in excess of 600°C, toxic fumes of copper and zinc oxides may be evolved. Oxides of tin, silver and also silica may form.

**Fire Fighting**

**Procedures:** Firefighters should wear full protective clothing and self-contained breathing equipment operated in positive pressure mode.

**Extinguishing Media:** Use appropriate fire extinguisher for surrounding environment. Subject to the presence of electrical shock risks, use of water fog is preferred.

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