

## Material Safety Data Sheet

### PACWELD 47 Flux - Brazing Alloy

Identity	Supplier's Name	Supplier's Address	Date	Telephone No.	Facsimile No.
Pacweld Welding Consumable	3D Safety Services Pty Ltd	27 Sir Joseph Banks Street Botany, NSW 2019	01-10-2004	1300 663 195	1300 663 495

This product is hazardous according to Worksafe Australia Criteria

#### Section 1 - Material Identification

Use: Braze welding steel and cast iron  
UN Number: N/A  
Dangerous Goods Class: N/A  
Hazchem Code: 2R  
Poisons Schedule: N/A  
Product Classification: RB CU ZN - C  
AS 1167 - .1/.2  
Physical Description: Green flux coating

#### Section 2 – Ingredients

Entity	CAS No.	Proportion
Copper (Cu)	7440-50-8	High content 46% - 50%
Zinc (Zn)	7440-66-6	High content 10% - 12.5%
Tin (Sn)	7440-31-5	Low content < 10%
Iron (Fe)	7439-89-6	Low content < 10%
Manganese (Mn)	7439-96-5	Low content < 10%
Silicon (Si)	7440-21-3	Low content < 10%

#### Section 3 - First Aid

Inhaled: Remove casualty from exposure, sit in half upright position and allow to rest. Urgently seek medical assistance. Transport to a hospital as soon as possible and show this MSDS to a medical practitioner.

Skin: Wash affected area with soap and water.

Eyes: Irrigate with water for at least ten minutes and seek medical assistance.

Ingestion: Rinse mouth, give plenty of water to drink. Transport to hospital immediately.

Advice to Doctor: Contact a Poisons Information Centre. Observation for 48 hours is necessary because there may be a latent period without symptoms, prior to a severe reaction.

#### Section 4 – Precautions For Use

##### Exposure Limits

Silver: 0.1 mg/m<sup>3</sup> as fume

Copper: 0.2 mg/m<sup>3</sup> as fume

Zinc: 5.0 mg/m<sup>3</sup> as zinc oxide

Cadmium: 0.05 mg/m<sup>3</sup> as cadmium oxide fume

The TLV for cadmium is a ceiling limit. The ACGIH handbook for 1989-90 proposes a TLV of .01 mg/m<sup>3</sup> for cadmium with a classification as an A2 carcinogen. This definition by the International Agency for Research on Cancer is for materials where there is limited evidence of carcinogenicity to humans. For A2 carcinogens, worker exposure by all routes should be carefully controlled.

##### Ventilation

Local fume extraction is necessary in all situations to ensure air concentrations of cadmium oxide are maintained below TLV levels. Confined situations require the use of half face airline respirator even where local exhaust systems are used. Refer to Australian Welding Research Association and the Australian Welding Institute Technical Note 7 for further details.

#### **Personal Protection**

Tests to determine whether or not TLV's are being exceeded can be performed using lapel samplers, with sample filters analysed for cadmium. Appropriate ventilation should be used but additional operator protection can be achieved using an approved half-face cartridge respirator suitable for metal oxide fume. Wear protective clothing when brazing heat resistant gloves and chemical goggles. Do not eat, drink or smoke in the working area.

### **Section 5 - Safe Handling Information**

#### **Storage and Transport**

Copper and some copper alloys can form explosive acetylides when exposed to acetylene. As with many metals and alloys, contact with mineral acids liberates hydrogen, a flammable and explosive gas. Store away from acids and acetylene.

#### **Spills and Disposal**

Disposal should comply with local and national waste disposal procedures.

#### **Fire/Explosion Hazard**

This alloy is not pyrophoric. However, if involved in a fire generated by other means, resulting in temperatures in excess of 600°C, toxic fumes of zinc and especially cadmium oxide will be evolved. Fire extinguisher selection should be governed by the source of the fire and other materials involved. Subject to the presence of electrical shock risks, use of water fog is preferred.

The information presented in this safety data sheet is accurate to the best knowledge and belief of 3D Safety Services Pty Ltd. As we cannot anticipate all conditions under which this information and our products or the products of other manufacturers are used in combination with our products this safety sheet cannot constitute the user's assessment of workplace risk. Users are advised to make their own test to determine the safety and suitability of each product or product combination for their purposes.



**PEOPLE PLANT PROCESS**