

PRODUCT: Tungsten Electrodes PLATINUM RE4

REVISED: 2 February 2026

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1. Identification of Material and Supplier

Product Name	PLATINUM RE4 Tungsten Electrodes		
Part Numbers	WC-05192, WC-05193, WC-05194, WC-06509		
Other Names	N/A		
Recommended Use	Electrode for TIG welding		
Supplier's Name	Weldclass		
Address	5 Hawker Rd, Tamworth NSW 2340		
Phone	+612 6764 9590	E-mail	sales@weldclass.com.au
Web	www.weldclass.com.au		

2. Hazards Identification

Hazardous Classification

This product is hazardous according to the criteria of the ASCC/SWA, is not a DG Substance according to the ADG Code, is not a Scheduled Poison according to the SUSMP, is not a flammable or combustible liquid according to AS 1940 and is listed on the AICS.

Risk Phrases

R36/38 Irritating to eyes and skin.

Contains material that can cause target organ damage.

Safety Phrases

S24/25 Avoid contact with skin and eyes. Wash thoroughly after handling.

The fumes emitted by the electrodes, in use, and dust from grinding, are hazardous. This SDS is written for workers using these electrodes and relates to welding fumes whilst in use and not the electrodes as sold.

3. Composition Information on Ingredients

Chemical name	CAS Number	Proportion
Tungsten	7440-33-7	98.34%
Lanthanum Oxide	1312-81-8	1.3-1.7%
Zirconium Dioxide	1314-23-4	0.06-0.10%
Yttrium Oxide	1314-36-9	0.06-0.10%

4. First Aid Measures

4.1 Symptoms of Exposure by Route

Voluntary product information based on the format of a safety data sheet.

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Ingested	Unlikely to occur, product is a solid wire.
Eyes	Dust particulates or fumes may cause eye irritation.
Skin	Slightly irritating to the skin.
Inhaled	Prolonged or repeated exposure to fumes from welding may have adverse health effects.

4.2 First Aid Instructions

Ingested	Do not induce vomiting unless following medical directions. Rinse mouth out with water. Give water to drink. If symptoms persist seek prompt medical assistance.
Eyes	Hold eyelids open and flush eyes with clean water for 20 minutes. Hold eyelids open and away from eye to ensure that the inside of the lids are carefully flushed clean. If symptoms persist or corneal damage is present seek prompt medical advice.
Skin	Remove contaminated clothing (under deluge shower if necessary). Wash affected area for 20 minutes with plenty of water. Do not rub hard. Pat dry. If symptoms persist seek prompt medical advice.
Inhaled	Remove patient to fresh air. Loosen tight clothing and allow to rest. Treat for shock if required. Rinse mouth and nose with water. Provide artificial respiration if breathing stops. Unless recovery is prompt seek urgent medical advice.
First Aid Facilities	Provide normal industrial first aid facilities including eyewash stations and deluge showers, where appropriate, close to the area where product is in use.

Notes to Physician (for symptoms of over-exposure to this product see above)

Possible symptoms of Chronic Health Effects

Contains material that may cause damage to the following organs: blood, upper respiratory tract, skin, eyes.

Possible aggravated pre-existing conditions

Pre existing conditions involving any target organs mentioned in this SDS may be aggravated by overexposure to this product.

Suggested treatment for acute symptoms, known antidotes

Provide supportive care and treatment based on the patient's reactions to the exposure. For further information contact the:

POISONS INFORMATION CENTRE 13 11 26

5. Fire Fighting Measures

5.1 Flammability and Explosion Hazards

Product is not flammable.

5.2 Hazardous Combustion Products

Welding or destruction by fire produces fumes containing tungsten vapours.

5.3 Suitable Extinguishing Media

Use extinguishing media suitable for surrounding fire. Hazchem Code: n.all.

5.4 Precautions for Fire Fighters and Special Equipment

Wear SCBA and normal turn out clothing.

6. Accidental Release Measures

6.1 Emergency Procedures – Spills and Leaks (See Section 13 for disposal considerations)

Prevent product entering drains or waterways. Sweep up or collect product and return to store if serviceable. Unserviceable product should be recovered or placed in suitable waste receptacles ready for disposal.

7. Handling and Storage

7.1 Handling Advice

Wear suitable protective clothing for the task.

7.2 Storage Advice

Store in a cool, dry and well-ventilated area, away from direct sunlight. Keep in an area where the minimum amount of pedestrian traffic takes place. Keep away from foodstuff and foodstuff empties. Avoid unnecessary handling to minimise exposures.

8. Exposure Controls / Personal Protection

8.1 Exposure Standards

Substance	TWA	STEL
Tungsten	5 mg/m ³	10 mg/m ³
Lanthanum Oxide	n.d	n.d
Zirconium Dioxide	5 mg/m ³	10 mg/m ³
Yttrium Oxide	1 mg/m ³	n.d

8.2 Engineering Control Methods

Provide local exhaust fume extractors and ventilators capable of maintaining the workplace below the exposure limits.

8.3 Personal Protective Equipment

Respiratory Protection	Take normal welding precautions
Eye Protection	Wear welder's helmet.
Gloves	Wear thermal protective gloves to AS 2161 while welding.

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Clothing	Wear PPE suitable for welding processes
Hygiene Measures	Ensure that eyewash stations and safety showers are close to the workstation. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the toilet.

9. Physical and Chemical Properties

Appearance	metallic grey solid (bar)	Odour	Odourless
Melting Point	3400°C	Boiling Point	5900°C
Specific Gravity	19.2g/cm	Density	19 to 19.1 g/cm ³
Solubility (H₂O)	Insoluble	Other Properties	None Relevant

10. Stability and Reactivity

During normal handling and use the product is stable. Tungsten exposed to air: From 500°C onwards oxidization to tungsten oxide WO₃. From 850°C onwards evaporation of built up tungsten oxides WO₃.

Under normal use and storage hazardous reactions will not occur.

11. Toxicological Information

No data relevant to product as sold was found.

12. Ecological Considerations

Not biodegradable. Do not dispose of into water and standard waste facilities.

13. Disposal Considerations

Disposal must be in accordance with local regulations for hazardous wastes.

14. Transport Information

No DG regulatory requirements apply to the transport of this product.

15. Regulatory Information

n.d.

16. Other Information

Abbreviations used: n.d = not determined, n.a = not applicable, n.all = not allocated, SWA = Safe Work Australia, HSIS = Hazardous Substance Information System, SUSMP = Standard for the Uniform Scheduling of Medicines and Poisons, ADG = Australian Dangerous Goods Code, IATA = International Air Transport Association, (Dangerous Goods Regulations), IMDG = International Maritime Dangerous Goods (Code), ASCC = Australian Safety and Compensation Council. IARC = International Agency (for) Research (of) Cancer.