



MATERIAL SAFETY DATA SHEET

1. Identification of Material and Supplier

Product Name	Graceduty Electrode Z Zirconiased		
Part Numbers	10Z, 16Z, 24Z, 32Z, 40Z, 48Z		
Other Names	None allocated		
Recommended Use	Welding wire		
Supplier's Name	Independent Wholesale Welding Supply		
Address	Unit 2/170 Power Street, Glendenning, NSW. 2761		
All mail to:	PO Box 284 Doonside NSW 2767		
Telephone	61 2 8834 2400	Facsimile	61 2 8834 2498
Technical Support	61 2 8834 2400	E-mail Address iwws@iwws.net	
Web	www.iwws.net		

2. Hazards Identification

Hazardous Classification

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

Risk Phrases None allocated (see also page 2)

Safety Phrases None allocated (see also page 3)

3. Composition Information on Ingredients

Chemical name	CAS Number	Proportion
Tungsten	7440-33-7	approx. 99.2%
Zirconium Oxide	1314-23-4	approx. 0.8%

4. First Aid Measures

4.1 Symptoms of Exposure by Route

Ingested	Unlikely to occur, product is a coated solid wire.
Eyes	Fragments or aerosol will cause eye irritation. Hot fragments may cause corneal burns.
Skin	Burns will result from contact with hot wire while welding.
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 15 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 10 minutes with soap and water. Do not rub hard. Rinse well for a further 5 minutes and 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

No data relevant to product was found.

Possible aggravated pre-existing conditions

No data relevant to product was found.

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 dry chemical suitable for metallic fires.

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 task.

7.2 Storage Advice

Store in a cool, dry and well-ventilated area. 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

The ASCC has not set an exposure standard for the product. The fumes arising from welding have an Exposure Standard of:

Substance	TWA	STEL
Welding fumes (<i>Must be measured inside welder's helmet</i>)	5 mg/m ³	n.est.

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.

Clothing Wear thermal protective apron if engaged on welding work. If not welding, wear Tyvec or cotton coveralls fastened at the neck and wrists.

9. Physical and Chemical Properties

Appearance	Metal grey solid wire	Odour	Odourless
Melting Point	3680°K	Boiling Point	5828°K
Specific Gravity	19.2 g/cm		
Flash Point	n.a.	Flammability Limits	n.a.
Vapour Pressure	n.d.	Vapour Density	n.d.
Solubility (H₂O)	insoluble	AS1940 Class	n.a.

Other Properties

Thorium, present at approximately 2 %, is very slightly radioactive. Emissions are reported to be less than cut-off value for classification.

10. Stability and Reactivity

During normal handling and use the product is stable.

11. Toxicological Information

No data relevant to product as sold was found.

12. Ecological Considerations

Will not biodegrade. 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

Label in accordance with the "National Code of Practice for the Labelling of Workplace Substance" [ASCC: 2012 (1994)] with the word HAZARDOUS. A list of ingredients must be displayed on the label using the names given on page one of this MSDS.

16. Other Information

Disclaimer

No representative of IWWS any other person has the authority to alter or amend this MSDS or the information contained therein without the prior approval of IWWS management. Any alterations render this document invalid. The information presented in this MSDS is believed by Independent Wholesale Welding Supply to be accurate at the date shown and in accordance with information available to the Company. The circumstances and methods of using, handling, transporting or storing the material are beyond our control and persons using, handling, transporting or storing the product do so at their own risk. Independent Wholesale Welding Supply accept no liability for damage or injury arising from the use of the information contained herein.

Original Date of Issue: 7/12/2006

New MSDS (Version 1.) to comply with National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition NOHSC: 2011 (2003).

Data Sources used: in the preparation of this MSDS include: "Chempendium" and "MSDS plus Cheminfo" published in CD format by CCOHS Canada 2005 - 4. "TOMES" a CD database published by Micromedex, USA, "Hazardous Properties of Industrial Materials" Van Nostrand Reinhold NY, USA. "List of Designated Hazardous Substances" NOHSC 10005:1999, "National Exposure Standards" NOHSC 1003:1995.

Abbreviations used: n.d = not determined, n.a = not applicable, n.all =not allocated, SUSDP=Standard for the Uniform Scheduling of Drugs 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.