

SAFETY DATA SHEET

TE001 Tungsten Electrodes Electrodes (Non Thoriated)



Version number: 1
Replaces SDS: 2009-11-23
Issued: 2014-01-21

Not for sale in the USA

Section 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Trade name Matador

Article-no

Product/Article	Diameter(mm)	Packaging (pk/ea)	Part Number
Matador Tungsten	1.6	10	YLK 116346
Matador Tungsten	2.4	10	YLK 116347

1.2 Relevant identified uses of the substance or mixture and uses advised against

Article type GTAW (TIG) Gas tungsten arc welding ISO 6848/AWS SFA A5.12 (or other)

Use Gas shielded Arc welding

1.3 Details of the supplier of the safety data sheet

Supplier Ceylon Oxygen Limited

Street address No. 50, Sri Pannananda Mawatha,
Colombo 15,
Sri Lanka

Telephone +94 11 4760400, +94 11 2524381

Fax +94 11 4615272

Email Customer.service@ceylonoxygen.com

1.4 Emergency telephone number

Available outside office hours Yes

Emergency phone number +94 777 357670

Other

Additional product information Web site: www.linde.lk

Section 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1271/2008[CLP] applicable

2.2 Label elements

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Not applicable

2.3 Other hazards

Note: When preparing (grinding) and using these electrodes as part of the welding process additional potential hazards are likely: Grinding.

Toxic dusts. Ensure adequate dust extraction, ventilation and dust disposal.

When the product is used in the welding process the most important hazards are:

Overexposure to fumes and gases from welding can be dangerous to health.

Watch out for splatter, hot metal and slag. It may cause skin burn and cause fire.

Arc rays can injure eyes and burn skin. Electric shock can kill. Avoid touching live electrical parts.

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

This product is a mixture and please refer to Section 3.2

3.2 Mixtures

AWS Classification	W (min.) %	CeO ₂ %	La ₂ O ₃ %	ZrO ₂ %	Other oxides or elements (total max)
CAS Number	7440-33-7	1306-38-3	1312-81-8	1314-20-1	
EWP	99.5	-	-	-	0.5
EWCe-2	97.3	1.8-2.2	-	-	0.5
EWL _a -1	98.3	-	0.8-1.2	-	0.5
EWL _a -1.5	97.8	-	1.3-1.7	-	0.5
EWL _a -2	97.3	-	1.8-2.2	-	0.5
EWZr-1	99.1	-	-	0.15-0.40	0.5

Section 4. FIRST AND MEASURES

4.1 Description of first aid measures

Inhalation

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms occur.

Skin contact

Burns should be treated by a doctor.

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Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Burns from radiation, see doctor.
Ingestion	Contact a doctor if more than an insignificant amount has been swallowed.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation	Inhalation of vapours may cause irritation of the respiratory system in very susceptible persons.
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4.3 Indication of any immediate medical attention and special treatment needed

Not applicable

Section 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	Carbon dioxide (CO ₂) , powder or diffuse jet of water. In case of major fire: Extinguish fire with diffuse jet of water or foam.
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5.2 Special hazards arising from the substance or mixture

Not applicable

5.3 Advice for fire fighters

Special protective equipment for fire fighters	Wear self contained breathing apparatus
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Section 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

General ventilation and local fume extraction must be adequate to keep fume concentrations within safe limits. Use respiratory equipment when welding in a confined space. Wear protective clothing and eye protection appropriate to arc welding. Skin contact should be avoided to prevent possible allergic reactions.

6.2 Environmental precautions

Try to prevent the material from entering drains or water courses.

6.3 Methods and material for containment and cleaning up

Not applicable

6.4 Reference to other sections

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For *Personal protection* see section 8. For *Disposal* see section 13. For *Environmental precautions* see section 12. For *Precautions for safe handling* see 7.1.

Section 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Preventive handling precautions

Ensure adequate ventilation for the welder and others. Use respiratory equipment when welding in a confined space. Wear protective clothing and eye protection appropriate to arc welding. Remove all flammable materials and liquids before welding.

General hygiene

Wash hands before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Store welding consumables inside a room without humidity. Do not store welding consumables directly on the ground or beside walls. Store away from chemical substances like acids which could cause chemical reactions.

7.3 Specific end use(s)

Welding process.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Welding fume component	CAS No.	WEL ² 8hr TWA	STEL ² 15min TWA
Tungsten and compounds (as W)			
Soluble	7440-33-7	1	
Insoluble		5	
Zirconium compounds (as Zr)	7440-67-7	5	10
Thorium compounds (as Th)	7440-29-1		
Nitrogen dioxide (NO ₂)	10102-44-0	0.5 ppm ³	0.95ppm ₃
Ozone (O ₃)	10028-15-6	0.2 ppm ⁴	
Nitrogen monoxide (NO)	10102-43-9	0.5ppm ³	0.63ppm ₃

8.2 Exposure controls

Environmental Exposure Controls – Refer to Section 6 of this SDS

Technical precaution measures

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Eye / face protection	Wear eye protection appropriate for welding.
Safety gloves	Skin contact should be avoided to prevent possible allergic reactions.
Other skin protection	Wear body protection which helps to prevent injury from radiation, sparks and electric shock.
Respiratory protection	Use respiratory equipment when welding in a confined space. Wear protective clothing and eye protection appropriate to arc welding.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance, colour	Grey
Appearance, physical state	Rod
Auto-ignition temperature	Not applicable
Auto-inflammability	Not auto-flammable
Decomposition temperature	Not applicable
Evaporation rate	Not applicable
Explosive properties	Not explosive
Flammability (solid gas)	Not applicable
Flash point	Not applicable
Form	Fast
Initial boiling point and boiling range	5828K
Melting point / Freezing point	Not applicable
Odour	Odourless
Odour threshold	Not applicable
Oxidising properties	Not applicable
Partition coefficient: n-octanol / water	Not applicable
pH value	Not applicable
Relative density	Not applicable
Solubility	Not applicable
Solubility in water	Insoluble
Upper / lower flammability or explosive limits	Not applicable
Vapour density	Not applicable
Vapour pressure	Not applicable
Viscosity	Not applicable

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9.2 Other information

Not applicable

Other

Density Depending on alloy grade 18.8g/cm³ to 19.2g/cm³

Section 10. STABILITY AND REACTIVITY

10.1 Reactivity

Not applicable

10.2 Chemical stability

Stable at normal conditions.

10.3 Possibility of hazardous reactions

Not applicable

10.4 Conditions to avoid

None under normal conditions

10.5 Incompatible materials

Not applicable

10.6 Hazardous decomposition products

Welding fumes and gases. Additional fume may arise from coatings and contaminants on the base material.

Welding fume component	CAS No.	Classification (67/548EEC)	CLP (1272/2008)		Concentration of classified fume components
Tungsten and its compounds (W)	7440-33-7	-	-	-	>95.8
					0.8 to 4.2
Classification	H phrase	Text			
Acute Tox.: Category 4	H302 H312 H332	Harmful if swallowed Harmful in contact with skin Harmful if inhaled			

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The Classification information above relates to the fume during use

Section 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Conditions to avoid: none in the form supplied

When welding, fumes and gases generated can be dangerous to health.

Acute toxicology	Excessive exposures may affect human health, as follows: Aspiration may cause pulmonary oedema and pneumonitis Short-term overexposure can cause dizziness, nausea and irritation of the nose, throat or eyes.
Irritation	Not applicable
Corrosive effects	Not applicable
Sensitisation	May cause sensitisation by skin contact
Mutagenicity	Not applicable
Carcinogenicity	Welding fumes are possibly carcinogenic to humans
Repeated dose toxicity	Not applicable
Reproductive toxicity	Not applicable

Section 12. ECOLOGICAL INFORMATION

12.1 Toxicity

The welding process can effect the environment if fume is released directly into the atmosphere.

Acute fish toxicity	LC ₅₀ Fish 96h: 15.6mg/L (rainbow trout, oncorhynchus mykiss, 28d) Aluminiumoxide: >100 mg/l Salmo trutta
Amphibians toxicity	IC ₅₀ Amphibians 72h: 2.9mg/L (toad, gastrophryne carolinensis, 7d)

12.2 Persistence and degradability

Not applicable

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12.3 Bio accumulative potential

No data available

12.4 Mobility in Soil

Not applicable

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Other adverse effects

Not applicable

Section 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal considerations

Dispose of any product, residue or packing material according to national and local regulations. Spent ;fume extraction filters shall be disposed of as dangerous waste.

Other

Waste code (EWC)

12 01 13 – welding waste

Section 14. TRANSPORT INFORMATION

14.1 UN number

Not applicable

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Not applicable

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14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Other

Dangerous goods No

Section 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture.

EU regulations

The product does not need to be labelled in accordance with EC directives or respective national laws.

National regulations

EH40/2005 Workplace exposure limits

The Waste Regulations 2011 No. 988

Local laws and regulations should be carefully observed.

15.2 Chemical safety assessment

Not applicable

Section 16. OTHER INFORMATION

References to key literature and data sources

Regulation (EC) No 1907/2006 of the European Parliament and of the Council, (REACH).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council.

EH40/2005 Workplace exposure limits.

C&L Inventory database

Annex VI CLP Regulation (EC) 1272/2008

Phrase meaning

H302	Harmful if swallowed
H312	Harmful in contact with skin
H332	Harmful if inhaled

Other

Manufacturer's notes

Read this Safety Data Sheet carefully and become aware of hazards implied and the safety information.

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