

# Safety Data Sheet

## according to WHS Regulations

Printing date 14.12.2022

Version number 3

Revision: 14.12.2022

### 1 Identification

- **Product identifier**
  - **Trade name:** **Tungsten electrodes E3**
  - **Relevant identified uses of the substance or mixture and uses advised against**
  - **Product category**
  - **Application of the substance / the mixture**
  - **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
  - **Further information obtainable from:**
  - **Emergency telephone number:**
- Nothing known  
Article according to Reach regulation article 3 n°3.  
The classifications listed below reflects the classification of the pure substance and are for information only.
- Non-consumable electrode in the TIG welding process; Electrode for lighting technology; Electrode for the plasma melting, plasma cutting, plasma spraying (thermal spraying); Emission cathode for electronic tubes
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Poison Information Centre  
131 126

### 2 Hazard(s) Identification

- **Classification of the substance or mixture** The product is not classified, according to the Globally Harmonised System (GHS).
  - **Label elements**
  - **GHS label elements**
  - **Hazard pictograms**
  - **Signal word**
  - **Hazard statements**
  - **Other hazards**
  - **Results of PBT and vPvB assessment**
  - **PBT:**
  - **vPvB:**
- Void  
Void  
Void  
Void  
Not applicable.  
Not applicable.

### 3 Composition and Information on Ingredients

- **Chemical characterisation: Mixtures**
  - **Description:**
- Article according to Reach regulation article 3 n°3.  
The classifications listed below reflects the classification of the pure substance and are for information only.

#### - Dangerous components:

7440-33-7	tungsten	50-100%
1312-81-8	lanthanum oxide	0.5-2.5%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### 4 First Aid Measures

- **Description of first aid measures**
  - **General information:**
  - **After inhalation:**
  - **After skin contact:**
  - **After eye contact:**
  - **After swallowing:**
- No special measures required.  
Do not leave affected persons unattended.  
Personal protection for the First Aider.  
Take affected persons out of danger area and lay down.  
In case of unconsciousness place patient stably in side position for transportation.  
Supply fresh air; consult doctor in case of complaints.  
Immediately wash with water and soap and rinse thoroughly.  
Seek medical treatment in case of complaints.  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.  
Protect unharmed eye.  
If symptoms persist consult doctor.

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- Information for doctor:
  - Most important symptoms and effects, both acute and delayed
  - Indication of any immediate medical attention and special treatment needed
- No further relevant information available.
- No further relevant information available.

### 5 Fire Fighting Measures

- Extinguishing media
  - Suitable extinguishing agents:
  - For safety reasons unsuitable extinguishing agents:
  - Special hazards arising from the substance or mixture
  - Advice for firefighters
  - Protective equipment:
  - Additional information
- CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire extinguishing methods suitable to surrounding conditions.
- Water with full jet
- Formation of toxic gases is possible during heating or in case of fire.  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide (CO)
- Do not inhale explosion gases or combustion gases.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6 Accidental Release Measures

- Personal precautions, protective equipment and emergency procedures
  - Environmental precautions:
  - Methods and material for containment and cleaning up:
  - Reference to other sections
- Not required.
- No special measures required.
- Pick up mechanically.  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and Storage

- Handling:
  - Precautions for safe handling
  - Information about fire - and explosion protection:
  - Conditions for safe storage, including any incompatibilities
  - Storage:
  - Requirements to be met by storerooms and receptacles:
  - Information about storage in one common storage facility:
  - Further information about storage conditions:
  - Special use(s)
- No special measures required.
- No special measures required.
- No special requirements.
- Not required.
- None.
- No further relevant information available.

### 8 Exposure controls and personal protection

- Additional information about design of technical facilities:
  - Control parameters
- No further data; see item 7.

- Ingredients with limit values that require monitoring at the workplace:

**7440-33-7 tungsten**

WES	Short-term value: 10 mg/m <sup>3</sup> Long-term value: 5 mg/m <sup>3</sup> as W
-----	--

- Additional information:
  - Exposure controls
  - Personal protective equipment:
  - General protective and hygienic measures:
  - Respiratory protection:
- The lists valid during the making were used as basis.
- The usual precautionary measures are to be adhered to when handling chemicals.
- Not required.

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- |  |   |
|--|---|
| - Protection of hands:   | Not required.   |
| - Material of gloves   | The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. |
| - Penetration time of glove material   | Not applicable  |
| - As protection from splashes gloves made of the following materials are suitable: | Not applicable  |

### 9 Physical and Chemical Properties

- |   |   |
|---|---|
| - Information on basic physical and chemical properties |   |
| - General Information                                   |   |
| - Appearance:   |   |
| Form:   | Solid   |
| Colour:   | According to product specification            |
| - Odour:  | Odourless                                     |
| - Odour threshold:                                      | Not determined.                               |
| - pH-value:   | Not applicable.                               |
| - Change in condition                                   |   |
| Melting point/freezing point:                           | Undetermined.                                 |
| Initial boiling point and boiling range:                | Undetermined.                                 |
| - Flash point:  | Not applicable.                               |
| - Flammability (solid, gas):                            | Not applicable.                               |
| - Decomposition temperature:                            | Not determined.                               |
| - Auto-ignition temperature:                            | Product is not selfigniting.                  |
| - Explosive properties:                                 | Product does not present an explosion hazard. |
| - Explosion limits:                                     |   |
| Lower:  | Not determined.                               |
| Upper:  | Not determined.                               |
| - Density:  | Not determined.                               |
| - Relative density                                      | Not determined.                               |
| - Vapour density  | Not determined.                               |
| - Evaporation rate                                      | Not determined.                               |
| - Solubility in / Miscibility with water:               | Insoluble.                                    |
| - Partition coefficient: n-octanol/water:               | Not determined.                               |
| - Viscosity:  |   |
| Dynamic:  | Not determined.                               |
|   | Not applicable.                               |
| Kinematic:  | Not determined.                               |
|   | Not applicable.                               |
| - Other information                                     | No further relevant information available.    |

### 10 Stability and Reactivity

- |   |   |
|---|---|
| - Reactivity  | No further relevant information available.            |
| - Chemical stability                                |   |
| - Thermal decomposition / conditions to be avoided: | No decomposition if used according to specifications. |
| - Possibility of hazardous reactions                | No dangerous reactions known.                         |
| - Conditions to avoid                               | No further relevant information available.            |
| - Incompatible materials:                           | No further relevant information available.            |
| - Hazardous decomposition products:                 | No dangerous decomposition products known.            |

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### 11 Toxicological Information

- Information on toxicological effects
- Acute toxicity

- LD/LC50 values relevant for classification:

1312-81-8 lanthanum oxide

Oral LD50 ≤10,000 mg/kg (rat) (OECD 401)

Dermal LD50 ≤5.3 mg/kg (rat) (OECD 403)

- Respiratory or skin sensitisation

Sensitisation possible through skin contact.

- Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Irritant

### 12 Ecological Information

- Toxicity

- Aquatic toxicity:

1312-81-8 lanthanum oxide

NOEC ≤100 mg/l (Daphnia magna) (OCED 202)

- Persistence and degradability
- Behaviour in environmental systems:
- Bioaccumulative potential
- Mobility in soil
- Additional ecological information:
- General notes:
- Results of PBT and vPvB assessment
- PBT:
- vPvB:
- Other adverse effects

No further relevant information available.

No further relevant information available.

No further relevant information available.

Do not allow product to reach ground water, water course or sewage system.

Not applicable.

Not applicable.

No further relevant information available.

### 13 Disposal considerations

- Waste treatment methods
- Recommendation
- Uncleaned packaging:
- Recommendation:

Disposal according to official regulations

Disposal must be made according to official regulations.

### 14 Transport information

- UN-Number

- ADG, ADN, IMDG, IATA

Void

- UN proper shipping name

- ADG, ADN, IMDG, IATA

Void

- Transport hazard class(es)

- ADG, ADN, IMDG, IATA

- Class

Void

- Packing group

- ADG, IMDG, IATA

Void

- Environmental hazards:

Not applicable.

- Special precautions for user

Not applicable.

- Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

- UN "Model Regulation":

Void

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### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **Australian Inventory of Industrial Chemicals**

All ingredients are listed.

- **Standard for the Uniform Scheduling of Medicines and Poisons**

None of the ingredients is listed.

- **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I**

None of the ingredients is listed.

- **Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:**

Technical Documentation

- **Contact:**

Technical Documentation

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

- [www.echa.europa.eu](http://www.echa.europa.eu)

- [www.baua.de](http://www.baua.de)

IFA: Institute für Occupational Safety and Health of the German Social Accident Insurance:

- [www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index.jsp](http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index.jsp)

- [www.dguv.de/ifa/gestis/gestis-dnel-liste](http://www.dguv.de/ifa/gestis/gestis-dnel-liste)

- **Sources**

- \* **Data compared to the previous version altered.**

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