



**MATERIAL  
SAFETY  
DATA SHEET**

# Safety Data Sheet

Issue  
10/0206

## Tungsten Electrodes Lanthanated



### 1. General characterization

**1.1 Chemical characterization:** W + La<sub>2</sub>O<sub>3</sub>  
Tungsten, lanthanated

#### 1.2 Hazardous Ingredients:

Ingredient: Tungsten  
Alloying element: max. 2% lanthana

**1.3 Condition:** solid

**1.4 Appearance:** steel-grey surface

**1.5 Odour:** no odour

### 2. Physical and safety data

**2.1 Boiling point:** 5900 C (6173 K)

**2.2 Vapour pressure:** not volatile

**2.3 Vapour density:** not volatile

**2.4 Solubility of water:** insoluble

**2.5 Density:** 19.3 g/cm<sup>3</sup>

**2.6 Percent, volatile by volume** 0

**2.7 Evaporation rate:** not volatile

Comments: Tungsten has a high density.  
Powder/dusts will settle quickly

**2.8 Flashpoint:** N/A

**2.9 Flammable limits:** N/A

**2.10 Others:** Lanthanated tungsten powder/dust  
e.g. grinding dust may be a weak fire and explosion hazard  
depending on particle size and dispersion in air.

#### 2.11 Reactivity data:

**2.11.1 Stability** Stable

**2.11.2 Incompatibility:** none known

**2.11.3 Hazardous decomposition products:**  
WO<sub>3</sub>- vapour at high temperatures (>800 C, 1073k) not toxic

**2.11.4 Hazardous polymerisation:** will not occur

### 3. Transport

No special precautions needed

### 4. Prescriptions

No special prescriptions to take into consideration

### 4. Protection, storage and handling

#### 4.1 Technical protection:

Ventilation: Local exhaust

#### 4.2 Personal protection:

Respiratory protection: use respirators during grinding

Protective gloves: not necessary

Eye protection: safety glasses

Other protective equipment: depending on local conditions

**4.3 Storage:** No precautions necessary

**4.4 Waste disposal:** Dispose of in accordance with federal,  
state and local laws and regulations.

### 5. Precautions in case of accidents with fire

**5.1 Spill and leak procedures:** Steps to be taken in  
Case material is spilled or released provide clean-up employees  
with respirators for dusty conditions (grinding dust).

**5.2 Extinguishing media:** dry chemical, sand or  
Limestone

**5.3 Emergency and first aid procedures:** If a person breathes  
in large amounts of dust, remove from exposure. If material gets  
in eyes, flush particles from eyes with water.  
Consult a physician.

### 6. Health hazard data

**6.1 Special health hazard:** Reference available at this time do  
not report ill/health effects as a result to exposure to lanthanated  
tungsten, provided safety regulations are observed.

**6.2 Hazardous mixtures of other liquids, solids or gases:**  
Lanthana belongs to the rare earth. No toxicity or other adverse  
health effects are known.

### 7. Oecological data

No special prescriptions. Ventilation over filter.