

## SAFETY DATA SHEET

ELEKTROD R 48S 205960404

Last changed: 18/06/2012

Internal No: 205960404

### 1 Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Trade name / designation ELEKTROD R 48S 205960404

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

#### 1.3 Details of the supplier of the safety data sheet

##### NATIONAL MANUFACTURER/IMPORTER

Enterprise Luna Verktyg & Maskin AB  
Postal code 441 80 Alingsås  
Country Sverige  
E-mail mikael.olsson@luna.se  
Internet www.luna.se  
Telephone +46 322 60 60 00  
Fax +46 60 64 43

##### CONTACT PERSONS

Name	E-mail	Telephone	Country
Mikael Olsson			

### 2 Hazards identification

#### 2.1 Classification of the substance or mixture

DPD Classification:

CLP Classification:

Most important HSE hazard effects:

#### 2.2 Label elements

Signal word: None

EC-Label: No

##### COMPOSITION

Mn (< 2 %)

#### 2.3 Other hazards

### 3 Composition/information on ingredients

#### 3.2 Mixtures

Ingredient name	Reg.No	EC No.	CAS No.	Conc. (wt%)	DPD-Classification	CLP-classification
Mn			7439-96-5	< 2 %		

Full text of R-, H- and EUH-phrases: see section 16.

The EUH hazard statements mentioned in CLP-classification are only label elements.

### 4 First aid measures

#### 4.1 Description of first aid measures

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### INHALATION

During welding fume can be inhaled: bring patient in fresh air, breath in fresh air deeply. Contact physician if necessary

### INGESTION

Not applicable.

### SKIN CONTACT

Not applicable.

### EYE CONTACT

Not applicable.

### 4.2 Most important symptoms and effects, both acute and delayed

### 4.3 Indication of any immediate medical attention and special treatment needed

### 5 Fire-fighting measures

#### 5.1 Extinguishing media

##### SUITABLE EXTINGUISHING MEDIA:

Fire can be extinguished with carbon dioxide, powder, foam or water spray.

#### 5.2 Special hazards arising from the substance or mixture

#### 5.3 Advice for fire-fighters

### 6 Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

##### PERSONAL PRECAUTIONS

No special precautions required.

#### 6.2 Environmental precautions

##### ENVIRONMENTAL PRECAUTIONS

No special precautions required.

#### 6.3 Methods and material for containment and cleaning up

##### METHODS AND MATERIAL

Dumped according to local and national regulations.

#### 6.4 Reference to other sections

### 7 Handling and Storage

#### 7.1 Precautions for safe handling

##### PRECAUTION FOR SAFE HANDLING

No special precautions required.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### CONDITION FOR SAFE STORAGE, INCLUDING ANY UNCOMPATIBILITIES

No specific storage precautions noted.

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### 7.3 Specific end uses

### 8 Exposure controls / Personal protection

#### 8.1 Control parameters

#### 8.2 Exposure controls

##### APPROPRIATE ENGINEERING CONTROLS

In case of dust or smoke: keep foodstuffs sealed

Avoid direct contact. Protective clothing must be stored separately from other clothing.

Wash your hands thoroughly after handling and before eating or smoking.

##### EYE PROTECTION

Use eye protection.

##### SKIN PROTECTION

Use well fitting working clothes

Use a welding helmet during welding

##### HAND PROTECTION

Wear suitable gloves.

##### RESPIRATORY PROTECTION

During welding fumes will be formed. The fume content is depending on the electrode type and the base material.

Primarily iron oxide, secondarily complex oxides of manganese may be formed. Also ozone and nitrogen dioxide can be formed by arc radiation.

Effective ventilation is presupposed or suitable respirator.

##### OTHER INFORMATION

Possible reaction products in welding fume: Manganese oxide, ozone, nitrogen dioxide

### 9 Physical and chemical Properties

#### 9.1 Information on basic physical and chemical properties

**PHYSICAL STATE** Electrode

Parameter	Value/unit	Method/reference	Observation
pH concentrate	No data		
pH in solution	No data		
Melting point	1000 - 1500 °C		
Freezing point	No data		
Initial boiling point and boiling range	No data		
Flash point	No data		
Evaporation rate	No data		
Flammability (solid, gas)	No data		
Flammability limits	No data		
Explosion limits	No data		
Vapour pressure	No data		
Vapour density	No data		
Relative density	No data		
Partition coefficient	No data		
Auto-ignition temperature	No data		
Decomposition temperature	No data		
Viscosity	No data		

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### 9.2 Other safety information

Note no.	Comments
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### 10 Stability and Reactivity

#### 10.1 Reactivity

#### 10.2 Chemical stability

#### 10.3 Possibility of hazardous reactions

#### 10.4 Conditions to avoid

##### CONDITIONS TO AVOID

Avoid contact with acids and alkalis.

#### 10.5 Incompatible materials

#### 10.6 Hazardous decomposition products:

##### HAZARDOUS DECOMPOSITION PRODUCTS

Not known

### 11 Toxicological information

#### 11.1 Toxicological effects

### 12 Ecological information

#### 12.1 Toxicity

##### ECOTOXICITY

Not known

#### 12.2 Persistence and degradability

#### 12.3 Bioaccumulative potential

#### 12.4 Mobility in soil

#### 12.5 Results of PBT and vPvB assessment

#### 12.6 Other adverse effects

### 13 Disposal considerations

#### 13.1 Waste treatment methods

##### GENERAL REGULATIONS

Dumped according to local and national regulations.

### 14 Transport information

Classified as Dangerous Goods: No

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### Land transport (ADR/RID)

<b>14.1 UN-No.</b>	Not applicable.	<b>14.4 Packing group</b>	Not applicable.
<b>14.2 Proper Shipping Name</b>	Not applicable.	<b>14.5 Environmental hazards</b>	Not applicable.
<b>14.3 Class(es)</b>	Not applicable.		
<b>Hazard label(s)</b>	Not applicable.		
<b>Hazard ID:</b>	Not applicable.	<b>Tunnel restriction code</b>	Not applicable.

### Inland water ways transport (ADN)

<b>14.1 UN-No.</b>	Not applicable.	<b>14.4 Packing group</b>	Not applicable.
<b>14.2 Proper Shipping Name</b>	Not applicable.	<b>14.5 Environmental hazards</b>	Not applicable.
<b>14.3 Class(es)</b>	Not applicable.		
<b>Environmentally hazardous in tank-vessels</b>	Not applicable.		

### Sea transport (IMDG)

<b>14.1 UN-No.</b>	Not applicable.	<b>14.4 Packing group</b>	Not applicable.
<b>14.2 Proper Shipping Name</b>	Not applicable.	<b>14.5 Environmental hazards</b>	Not applicable.
<b>14.3 Class(es)</b>	Not applicable.		
<b>Sub Risk:</b>	Not applicable.		
<b>IMDG Code segregation group</b>	Not applicable.		
<b>Marine pollutant</b>	Not applicable.		
<b>EMS:</b>	Not applicable.		

### Air transport (ICAO-TI / IATA-DGR)

<b>14.1 UN-No.</b>	Not applicable.	<b>14.4 Packing group</b>	Not applicable.
<b>14.2 Proper Shipping Name</b>	Not applicable.	<b>14.5 Environmental hazards</b>	Not applicable.
<b>14.3 Class(es)</b>	Not applicable.		
<b>Hazard label(s)</b>	Not applicable.		

## 15 Regulatory information

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

### 15.2 Chemical Safety Assessment

#### OTHER INFORMATION

Warning do not inhale welding fumes Medium acute toxicity. Risk of injuries with long term or frequent inhalation. Ensure that ventilation is good. See the Safety Data Sheet for the type of electrode in question.

## 16 Other information