

## SAFETY DATA SHEET

### TIGTRÅD RTI DUPLEX 203070107

Last changed: 14/06/2012

Internal No: 203070107

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

##### 1.1 Product identifier

Trade name / designation TIGTRÅD RTI DUPLEX 203070107

##### 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: Carc. Cat. 3; R40, R43, Xn; R48

CLP Classification: Skin Sens. 1H317, Carc. 2H351, STOT RE 2H373

Most important HSE hazard effects: May cause an allergic skin reaction. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

##### 2.2 Label elements



Signal word: None

EC-Label: No

###### COMPOSITION

Kol (~ 1 ), Krom (~ 30 ), Koppar (~ 4 ), Manganese (~ 10 ), Molybden (~ 10 ), Nickel. (~ 30 ), P röd (< 0,05 ), Kisel (~ 3 ), Svavel (~ 0,5 ), Brom (~ 0,01 ), Järn (~ 10 ), Titan (~ 0,4 ), cobalt (~ 1 ), Niobium (~ 0,7 ), nitrogen dioxide (~ 0,4 )

###### H Statements

H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

##### 2.3 Other hazards

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### 3 Composition/information on ingredients

#### 3.2 Mixtures

Ingredient name	Reg.No	EC No.	CAS No.	Conc. (wt%)	DPD-Classification	CLP-classification
Kol			7440-44-0	~ 1		
Krom			7440-47-3	~ 30		
Koppar			7440-50-3	~ 4		
Manganese			7439-96-5	~ 10	Xn,R48	STOT RE 2 H373
Molybden			7439-98-7	~ 10		
Nickel.			7440-02-0	~ 30	Xn,Xi,R40 - R43	Skin Sens. 1 H317 Carc. 2 H351
P röd			7723-14-0	< 0,05	F,N,R11 - R16 - R52/53	Unst. Expl. H200 Flam. Liq. 2 H225 Aquatic Chronic 3 H412
Kisel			7440-21-3	~ 3		
Svavel			7704-34-9	~ 0,5		
Brom			7440-42-8	~ 0,01		
Järn			7439-89-5	~ 10		
Titan			7440-32-6	~ 0,4		
cobalt		231-158-0	7440-48-4	~ 1	Xn,R42/43 - R53	Resp. Sens. 1 H334 Skin Sens. 1 H317 Aquatic Chronic 4 H413
Niobium			7440-03-1	~ 0,7		
nitrogen dioxide		233-272-6	10102-44-0	~ 0,4	T+,O,R8 - R26 - R34	Ox. Gas 1 H270 Press. Gas comp. gas Acute Tox. 2 H330 Skin Corr. 1B H314

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

##### INHALATION

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

#### 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

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#### SUITABLE EXTINGUISHING MEDIA:

All common fire extinguishing agents may be used.

#### 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

#### 6.2 Environmental precautions

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

#### METHODS AND MATERIAL

See section 13.

#### 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 special precautions required.

#### 7.3 Specific end uses

#### 8 Exposure controls / Personal protection

#### 8.1 Control parameters

#### OEL value

Ingredient name	CAS no.	Range	ppm	mg/m3	Year	Notification
Koppar	7440-50-3	8 h		0,2		
Brom	7440-42-8	8 h		15		
Järn	7439-89-5	8 h		10		
Titan	7440-32-6	8 h		13		
Niobium	7440-03-1	8 h		0,2		

R=Toxic for reproduction, H=Skin absorption, K=Carcinogenic, A=Sensitising, T=Upper limit, M=Mutagenic

#### OTHER INFORMATION REGARDING LIMIT VALUES AND MONITORING

Possible reaction products i welding fume Manganese oxide, ozon, nitrogen dioxid

#### 8.2 Exposure controls

#### APPROPRIATE ENGINEERING CONTROLS

Use only in well-ventilated areas. Avoid contact with skin. Observe normal hygiene such as washing hands before meals, etc.

#### EYE PROTECTION

Use breathing masks and eye protection when smoke is present.

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#### SKIN PROTECTION

Wear suitable protective clothing. Use a welding helmet during welding

#### HAND PROTECTION

Wear suitable gloves.

#### RESPIRATORY PROTECTION

Use breathing masks and eye protection when smoke is present.

#### OTHER INFORMATION

During welding fumes will be formed The fumecontent is depending on the electrode type and the base material Primarily iron oxid, secondarily complex oxides of manganese may be formed Also ozone and nitrogen dioxide can be formed by arc radiation

### 9 Physical and chemical Properties

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

**PHYSICAL STATE** Electrode Solid form.

**COLOUR** Metal-coloured.

**ODOUR** No odour.

Parameter	Value/unit	Method/reference	Observation
pH concentrate	No data		
pH in solution	No data		
Melting point	2750 °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 temprature	No data		
Decomposition temprature	No data		
Viscosity	No data		

#### 9.2 Other safety information

Note no.	Comments
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### 10 Stability and Reactivity

#### 10.1 Reactivity

#### 10.2 Chemical stability

##### CHEMICAL STABILITY

Stable under recommended storage and handling conditions.

#### 10.3 Possibility of hazardous reactions

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#### 10.4 Conditions to avoid

##### CONDITIONS TO AVOID

Strong acids.

#### 10.5 Incompatible materials

#### 10.6 Hazardous decomposition products:

#### 11 Toxicological information

##### 11.1 Toxicological effects

#### 12 Ecological information

##### 12.1 Toxicity

##### 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

Dump or destroy in accordance with official recommendations and applicable legislation.

#### 14 Transport information

Classified as Dangerous Goods: No

##### Land transport (ADR/RID)

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

##### Inland water ways transport (ADN)

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

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### 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</b>	Not applicable.		
<b>segregation group</b>			
<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**

## 16 Other information

### LIST OF RELEVANT R-PHRASES

R11	Highly flammable.
R16	Explosive when mixed with oxidising substances.
R26	Very toxic by inhalation.
R34	Causes burns.
R40	Limited evidence of a carcinogenic effect.
R42/43	May cause sensitisation by inhalation and skin contact.
R43	May cause sensitisation by skin contact.
R48	Danger of serious damage to health by prolonged exposure.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53	May cause long-term adverse effects in the aquatic environment.
R8	Contact with combustible material may cause fire.

### LIST OF RELEVANT H-STATEMENTS

H200	Unstable explosive.
H225	Highly flammable liquid and vapour.
H270	May cause or intensify fire; oxidizer.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H330	Fatal if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.