

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

**1.1 Product identifier:** For 490MPa low temperature service steel

1.1.1 Product name: EXECUTIVE 71T-12MJ

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

1.2.1 Relevant identified uses : EXECUTIVE 71T-12MJ is designed for welding of 490MPa low temperature steels (NACE/API steel) and good impact value at low temperatures down to -40°C in the PWHT conditions.

1.2.2 Uses advised : Reference the [7. Handling and storage]

**1.3 Company Identification :** Exocor Ltd

271 Ridley Road, St Catharines, ON L2S 0B3

www.exocor.com

### 2. HAZARDS IDENTIFICATION

**2.1 Classification of the mixture:**

The product is placed on the market in solid form.

2.1.1 Classification in accordance with Directive 1999/45/EC: Mixture is classified as Carc. Cat 3; R40, T; R48/23, R43

2.1.2 Classification in accordance with Regulation (EC) No 1272/2008: Mixture is classified as Carc. 2

H351, STOT RE 1 H372, Skin Sens, 1. H317

**2.2 Label elements:**

Labeling in accordance with Regulation (EC) No 1272/2008:

Pictograms:



**GHS07**

**GSH08**

**Signal word: Danger**

**Hazard statements:**

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

**Precautionary statements:**

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe fume.

P270 Do not eat, drink or smoke when using this product.

P281 Use personal protective equipment as required.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

**2.3 Other hazards :** No data available

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substances:** Not relevant.

**3.2 Mixtures:** The mixture contains these substances:

Substance name	CAS/EC No.	Conc.(%) Value(s)	Classification			
			67/548/EEC	CLP		
				Hazard Class and Category Code(s)	Hazard Pstate- Ment	Pictogram/ Signal word
Manganese <sup>2</sup>	7439-96-5 / 231-105-1	1 to 4	Xn; R68/20/21/22	STOT RE 2	H373	GHS08 Warning
Titaniumdioxide <sup>2</sup>	13463-67-7 / 236-675-5	4 to 8	Xi; R36 Xi; R37 T; R48/23	Eye Irrit. 2 STOT SE 3 STOT RE 1	H319 H335 H372	GHS07 GHS08
Nickel <sup>1,2</sup>	7440-02-0 / 231-111-4	0.1 to 1	Toxic Carc. Cat 3; R40 T; R48/23 R43	Carcinogenicity Carc. 2 Specific target organ toxicity — repeated exposure STOT RE 1 Respiratory/ skin Sensitization Skin Sens. 1	H351 H372 H317	GHS07 GHS08 Danger
Iron <sup>2</sup>	7439-89-6 / 231-096-4	84 to 90	-	-	-	-

<sup>1</sup> Substance is classified in terms of Regulation (EC) No. 1272/2008 Annex VI.

<sup>2</sup> Substance with workplace exposure limits.

<sup>3</sup> Substance is classified in terms of C&L Inventory.

Note S: This substance may not require a label according to Article 17 (see section 1.3 of Annex I) (Table 3.1).

This substance may not require a label according to Article 23 of Directive 67/548/EEC (see section 8 of Annex VI to that Directive) (Table 3.2).

Note 7: Alloys containing nickel are classified for skin sensitisation when the release rate of 0,5 \_g Ni/cm2/week, as measured by the European Standard reference test method EN 1811, is exceeded.

\*\*See all the hazard statements in chapter 16.

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures:

**In case of respiratory exposure:** Remove to fresh air and keep at rest. If breathing is difficult or has stopped, administer artificial respiration as necessary. Seek medical attention.

**In case of skin contamination:** Wash contaminated area thoroughly with soap and water.

Remove and wash contaminated clothing. If a persistent rash or irritation occurs, seek medical attention.

**In case of intrusion into eye:** Immediately flush eyes with large amounts of running water for at least 15 minutes, lifting the upper and lower eyelids. Get medical attention.

**In case of oral intake:** Ingestion is considered unlikely due to product form. However, if swallowed do not induce vomiting. Seek medical attention. Advice to doctor: treat symptomatically.

**4.2 Most important symptoms and effects, both acute and delayed:** No data available.

**4.3 Indication of any immediate medical attention and special treatment needed:** No data available

### 5. FIREFIGHTING MEASURES

**5.1 Extinguishing media:**

Suitable extinguishing media: Carbon dioxide, dry chemical, water spray. Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: No data available.

**5.2 Special hazards arising from the substance or mixture:** Fire may produce irritating or poisonous gases.

**5.3 Advice for firefighters:** In the event of a fire, wear self-contained breathing apparatus and protective clothing

**6. ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures:**

For non-emergency personnel: Wear appropriate personal protective equipment as specified in Section 8.

Ensure adequate ventilation.

For emergency responders: No data available.

**6.2 Environmental precautions:** Avoid dispersal of spilled material and contact with soil, ground and surface water, drains and sewers.

**6.3 Methods and material for containment and cleaning up:** Take up mechanically.

Collect the material in labeled containers and dispose of according to local and regional authority requirements.

**6.4 Reference to other sections:** 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**

**7.1 Precautions for safe handling:** Welding may produce fumes and gases hazardous to health.

Avoid breathing these fumes and gases. Use adequate ventilation. Keep away from sources of ignition.

Avoid contact with skin, eyes and clothing. Do not eat, drink and smoke in work areas.

Wear appropriate personal protective equipment as specified in Section 8.

**7.2 Conditions for safe storage, including any incompatibilities:** Store in cool, dry and well-ventilated place.

Keep away from incompatible materials. Keep away from heat and open flame.

**7.3 Specific end use(s):** No data available

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters:** Exposure limits were not established for this product.

Workplace exposure limits for substances contained in the mixture are listed in EH40/2005 Workplace exposure limits:

Substance	CAS number	Workplace exposure limit		Comments
		Long-term exposure limit (8-hour TWA reference period) ppm mg.m <sup>-3</sup>	Short-term exposure limit (15-minute reference period) ppm mg.m <sup>-3</sup>	
Manganese and its inorganic compounds (as Mn)		0.5		
Titanium dioxide Total inhalable resirable	13463-67-7	10 4		
Iron oxide, fume (as Fe)	1309-37-1	5	10	

\* A skin notation assigned to the OEL identifies the possibility of significant uptake through the skin.

**8.2 Exposure controls:** Do not eat, drink and smoke. Immediately remove all contaminated clothing.

Wash hands before breaks and at the end of work.

**8.2.1 Appropriate engineering controls:** Use local exhaust ventilation during all welding operations.

**8.2.2 Individual protection measures, such as personal protective equipment:**

8.2.2.1 Eye/face protection: Always wear eye protection during welding operations, helmet and/or face shield with

filter lens.

#### 8.2.2.2 Skin protection:

Hand protection: Wear appropriate protective (welding) gloves during welding.

Other: Wear appropriate protective clothing and boots.

8.2.2.3 Respiratory protection: If ventilation is insufficient, use appropriate respirator or self-contained breathing apparatus.

8.2.2.4 Thermal hazards: No data available.

**8.2.3 Environmental exposure controls:** Do not allow to enter sewers, surface and ground water

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance:	solid (metal rod)
Odour:	-
Odour threshold:	-
pH:	-
Melting point/freezing point:	-
Initial boiling point and boiling range:	-
Flash point:	-
Evaporation rate:	-
Flammability (solid, gas):	-
Upper/lower flammability or explosive limits:	-
Vapour pressure:	-
Vapour density:	-
Relative density:	-
Solubility(ies):	-
Partition coefficient: n-octanol/water:	-
Auto-ignition temperature:	-
Decomposition temperature:	-
Viscosity:	-
Explosive properties:	-
Oxidising properties:	-

**9.2 Other information:** No data available.

## 10. STABILITY AND REACTIVITY

**10.1 Reactivity:** No data available.

**10.2 Chemical stability:** The product is stable under normal conditions. When using it may produce dangerous fumes and gases.

**10.3 Possibility of hazardous reactions:** No data available.

**10.4 Conditions to avoid:** Avoid contact with incompatible materials.

**10.5 Incompatible materials:** Acids, bases, oxidizing agents.

**10.6 Hazardous decomposition products:** Metal oxide fumes and gases are produced during welding.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects:

The mixture may cause an allergic skin reaction. It is suspected of causing cancer. It causes damage to organs through prolonged or repeated exposure.

## 12. ECOLOGICAL INFORMATION

- 12.1 Toxicity:** No data available  
**12.2 Persistence and degradability:** No data available.  
**12.3 Bioaccumulative potential:** No data available.  
**12.4 Mobility in soil:** No data available.  
**12.5 Results of PBT and vPvB assessment:** No data available.  
**12.6 Other adverse effects:** No data available.

## 13. DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods:** Dispose off in accordance with local and national regulations.

## 14. TRANSPORT INFORMATION

- 14.1 UN number:** No data available.  
**14.2 UN proper shipping name:** No data available.  
**14.3 Transport hazard class(es):** No data available.  
**14.4 Packing group:** No data available.  
**14.5 Environmental hazards:** No data available.  
**14.6 Special precautions for user:** No data available.  
**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** No data available

## 15. REGULATORY INFORMATION

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

The substances in the mixture are not subject to authorisation under Title VII or restrictions under Title VIII of Regulation (EC) No. 1907/2006.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC;

Regulation (EC) No 1272/2008 of the European parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006;

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH);

DIRECTIVE 1999/45/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations;

COUNCIL DIRECTIVE of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (67/548/EEC).

- 15.2 Chemical safety assessment:** Chemical safety assessment is not available.

## 16. OTHER INFORMATION

**16.1 List of relevant risk phrases and hazard statements:**

R15 Contact with water liberates extremely flammable gases.

R17 Spontaneously flammable in air.

R40 Limited evidence of a carcinogenic effect.

R43 May cause sensitization by skin contact.

R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.

H317 May cause an allergic skin reaction

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

H261 In contact with water releases flammable gases

H250 Catches fire spontaneously if exposed to air

**16.2 Instructions for the training:** Product handling instruction shall be included into the educational system about the safety work (initial training, training at the workplace, repeated training) according to specific conditions at the workplace.

**16.3 Recommended restrictions on use (i.e. non-statutory recommendations by supplier):** Mixture should not be used for any other purpose than for which is appointed (point 1.2). Because of the fact that specific conditions of use of mixture are out of supplier's control, it is responsibility of the user to adjust the prescribed warnings to local laws and regulations. Safety information describes the product in terms of safety and it cannot be considered as technical information about product.

**16.4 Sources of key data used to compile the Safety Data Sheet:** SDS was prepared using data from the producer.

**16.5 Purpose of SDS:** Purpose of this SDS is to provide relevant information for users of product to ensure proper handling and control of risks/hazards.