



ORGANISATION OF SAFETY + ENVIRONMENT  
PRODUCT/SAFETY-SPECIFICATION  
PRODUCTNAME : CLASPS

SPE-CLA 1 / 3  
VERSION : 1  
Rev.date : 09-aug-2007

### 1: Identification of the product and the company

**Manufacturer:** Elephant Dental B.V., Verlengde Lageweg 10, 1628 PM Hoorn, The Netherlands, Tel.nr. +31/229-259000, www.elephant-dental.com

**Trade Name:** Clasps, various types

**Description:**

**Product group:** Non-precious alloys

**Application domain:** Surgical wire for orthodontic techniques

**Shape:** Wire

**Packing:** **Cross-type clasps** box with 10 pieces: TK 0.90mm; TK 1.00mm; J 0.80mm; J 0.90mm; J 1.00 mm; J oblique 0.80mm; J oblique 0.90mm; J oblique 1.00mm; JM 1.20mm.  
**Ball-end clasps** box with 10 pieces: 0.60mm, 0.70mm, 0.80mm, 0.90mm, 1.00mm.  
**Angular clasps** box with 10 pieces: single-arm left, single-arm right

**Art. no.:** 6101253090, 6101253100, 6101258080, 6101258090, 6101258100, 6101259080, 6101259090, 6101259100, 6101260000, 6101264060, 6101264070, 6101264080, 6101264090, 6101264100, 6101295001, 6101296001.

### 2: Composition/information of ingredients

<b>Composition:</b>	<b>CAS-no.</b>	<b>Symbol(s)</b>	<b>R-phrase(s)</b>	<b>Standard</b>
Iron (Fe)	7439-86-6	-	-	65 - 75 Massen %
Chromium (Cr)	7440-47-3	-	-	17 -19 Massen %
Nickel (Ni)	7440-02-0	Xn	R 40-43	7 - 11 Massen %
Manganese (Mn)	7439-96-5	-	-	0 - 2 Massen %
Other elements < 1% V, Si, Mo, C				
The final product is an alloy; the different components are not present as the individual element.				

### 3: Hazards identification

<b>Danger:</b>	<b>Finished product</b>	<b>Dust while processing</b>
Inhalation:	N.a.	n.a.
Skin:	None <sup>(1)</sup>	n.a.
Eyes:	None	n.a.
Swallow:	None	n.a.
<b>Carcinogenicity:</b>	Dental alloys are not listed as carcinogen	
<b>Medical conditions aggravated by exposure:</b>	Pre-existing respiratory and skin disease	
<sup>(1)</sup> <b>Note:</b> Clasps contain nickel and should not be used in case of a nickel allergy.		

### 4: First aid measures

<b>Inhalation:</b>	N.a.
<b>Skin contact:</b>	N.a.
<b>Eyes:</b>	N.a.
<b>Ingestion:</b>	N.a.
<b>Notes to physician:</b>	N.a.



### **5: Fire fighting measures**

This product is fire and explosion resistant, no special measures necessary.

### **6: Accidental release measures**

**Personal precautions:** Dust n.a.  
**Environmental precautions:** Use containerized disposal. No special precautions are required.

### **7: Handling and storage**

**Handling practices and warnings:** No particular measures required if used correctly. When melting and welding: local ventilation. Avoid inhalation of dusts and vapors; if dust / vapor occurs: wear personal protective equipment  
**Storage practices and warnings:** Store in a non-corrosive surrounding.

### **8: Exposure controls / Personal protection**

**Threshold Limit Value:**

Chromium (fumes and dust)	0.5 mg/m <sup>3</sup>
Nickel (fumes and dust)	1.5 mg/m <sup>3</sup>
Iron (fumes and dust)	no limit is set

Not applicable for finished product.

**General recommendations:** Adequate ventilation  
**Respiration:** Breathing protection  
**Eyes protection:** Safety goggles  
**Skin protection:** Protective gloves and clothing  
**Hygiene measures:** No eating, drinking or smoking at the working place. Wash face and/or hands before break and end of work.

### **9: Physical and chemical properties**

<b>Specific properties:</b>	<b>Unit</b>	<b>Standard</b>	<b>Tolerance</b>
Form:		Solid	
Color:		White	
Melting point:	°C	> 1300	
Boiling point:	°C	N.a.	
Density:	g/cm <sup>3</sup>	7.8	0.3
Solubility in water:		Not soluble in water	



### 10: Stability and Reactivity

<b>Stability:</b>	Good
<b>Conditions to avoid:</b>	At temperatures > 400°C the alloy oxidizes, but is stable.
<b>Material to avoid:</b>	Acids and oxidizing agents
<b>Hazardous decomposition products</b>	At temperatures > 1300°C the alloy may produce hazardous fumes.
<b>Shelf life</b>	Clasps have an unlimited shelf life.

### 11: Toxicological information

<b>Acute toxicity:</b>	No dangerous reactions are known to occur when handled and stored correctly; however clasps contain nickel and should not be used in case of a nickel allergy.
<b>Chronic effects:</b>	Clasps contain nickel and should not be used in case of a nickel allergy.

### 12: Ecological information

**Persistence and degradability:** Not bio-degradable. Prevent penetration of dust into soil, water course or sewage systems.

### 13: Disposal considerations

<b>Product:</b>	Collect and send to accredited metal recycler.
<b>Uncleaned packaging:</b>	Disposal according to local authority regulations.

### 14: Transport information

This product is not subject to transport regulations.

### 15: Regulatory information

#### Labeling according to EEC Directive

<b>Symbol:</b>	-
<b>R-phrases:</b>	-
<b>S-phrases:</b>	-
<b>EU-labeling:</b>	CE

### 16: Other information

<b>Symbol:</b>	Xn Harmful
<b>R-phrases:</b>	R 40 Limited evidence of a carcinogenic effect R 43 May cause sensitization by skin contact
<b>S-phrases:</b>	S 22 Do not breathe dust S 36 Wear suitable protective clothing

This safety data sheet is according EU-directives 91/155/EEG, 93/12/EG and 2001/58/EG.

Changes, compared to the previous version, are marked with an \*. The information provided is correct to the best of our knowledge, information and believes at the date of the publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation and disposal and is not to be considered a warranty or quality specification.