

## Material Safety Data Sheet

CEE 91/155 and CEE/93/112 Directives

**ORTHO PLUS**

28, rue Ampère – BP 28 - 91430 Igny France – Tél. /Fax: (33) 1 69 41 90 28/ (33) 1 60 19 32 22 [orthoplus@orthoplus.fr](mailto:orthoplus@orthoplus.fr)

### 1. Identification of the substance/device :

1.1 Device name : **NITANIUM PALATAL EXPANDER**

### 2. Composition, information on ingredients:

Composition	CAS N°	wt%
2.1 Iron	/	15-40
2.2 Chromium	/	8-25
2.3 Silicon	/	0-2
2.4 Nickel	/	25-49
2.5 Titanium	/	5-35
2.6 Cobalt	/	8-28
2.7 Manganese	/	0-4
2.8 Carbon	/	Trace-0.8
2.9 Silver	/	0.1-2.0
2.10 Copper	/	0.1-1.8
2.11 Tin	/	Trace-0.2
2.12 Phosphorus	/	Trace-0.1
2.13 Sulfur	/	Trace-0.1
2.14 Aluminium	/	Trace-Trace

### 3. Hasards identification:

While the following effects are associated with one or more of the individual ingredients in the product and are required to be included on the MSDS by the US OSHA hazard communication standard, they are not expected effects during the foreseeable use of the product.

**Allergic skin reaction :** signs, symptoms can include redness, swelling, blistering and itching.

**Inhalation :** health effects from inhalation are not expected unless the product is heated.

**Eye contact :** eye contact is not expected to occur during normal use of the product.

**Ingestion :** ingestion is not likely route of exposure to this product.

**Cancer :** chromium, nickel and their compounds are listed in the current annual report on carcinogens (prepared by the National Toxicology Program). Their presence in this alloy is not believed to present a carcinogenic or other health hazard due to their relatively low concentration and/or chemical form.

### 4. First aid measures:

**Eye Contact, Skin Contact, Inhalation, Ingestion:** no need of first aid anticipated in these events.

### 5. Fire fighting measures:

- **Extinguishing Media :** non-combustible. Choose material suitable for the surrounding fire.

- **Flash point :** N/A

- **Autoignition Temperature :** N/A

- **Flammable Limits :** N/A

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### 6. Accidental release measures:

- **Personal Precaution:** N/A
- **Environmental Precaution:** keep away from drains.

### 7. Handling and storage:

**Handling :** N/A

**Storage :** store away from acid.

### 8. Exposure controls/personal protection: N/A

### 9. Physical and chemical properties:

- ✓ Boiling point : N/A
- ✓ Vapor pressure : N/A
- ✓ Percent Volatile : N/A
- ✓ PH / N/A
- ✓ Solubility in water : insoluble
- ✓ Evaporation rate : N/A
- ✓ Viscosity : N/A
- ✓ Specific Gravity : 7.5-8.5
- ✓ Melting point : 2400-2800°F
- ✓ Appearance and color : small metallic wires with sharp corners and edges.

### 10. Stability and reactivity:

- **Stability :** stable
- **Materials to avoid :** strong acids
- **Hazardous Polymerization :** will not occur

### 11. Toxicological information:

See section 3. (Hazards information)

### 12. Ecological information:

Do not release to waterways or sewer. Metallic ions may release due to persistent contact with aqueous media.

### 13. Disposal considerations:

Do not release to waterways or sewer. Reclaim if possible.

### 14. Transport information:

No special precautions are needed.

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### **15. Regulatory information:**

This product is under :

- ✓ Class IIa under Council Directive 93/42/EEC
- ✓ Class II under CMDR P.C. 1998-783 7 May 1998
- ✓ Class II under 21 CFR 872.5410

This MSDS has been compiled based on the requirements of European Community Council Directive 91/155/EEC, and OSHA'S Hazard Communication Standard, 29 CFR 1910.1200.

### **16. Other information:**

The information herein is given in good faith, but no warranty, express or implied, is made.

#### **- Recommended use**

While the information and recommendations set forth on this data sheet are believed to be accurate as received from our suppliers, ORTHOPLUS makes no warranty with respect thereto and disclaims all liability from reliance thereon.