

SAFETY DATA SHEET

PRODUCTS RELATED TO THIS MSDS

PRODUCT	MATERIAL
BALL CLASPS	AISI 304
TUBES HOLLOW	AISI 304

IDENTIFICATION OF THE MATERIAL

Raw material used is stainless steel alloy (**Aisi 304**).

CHEMICAL COMPOSITION

1. Up to	0.75% Co
2. Up to	18,5% Cr
3. Up to	9% Ni
4. Up to	1% Mn
5. Up to	69.5% Fe
6. Balance	Si, C,

PHYSICAL - CHEMICAL PROPERTIES AND FLAMMABILITY

Appearance	Solid	Colour	Silver-grey
Odour	Odourless	Safety Data	None
Ph-value	None		
<i>Change of status</i>			
Bowling point	n.a.	Melting point	1315 – 1537 °C
Combustion rate	n.a.	Flammability	n.a.
Ignition temperature	n.a.	Auto-ignition temperature	n.a.
Comburent capability	n.a.	Explosion limit	n.a.
Vapour pressure	n.a.	Density at 20°	7,5 – 8.5 g/cm ³
<i>Solubility and scattering features</i>			
Soluble in water	Insoluble	Soluble in fat	Insoluble
Scattering coefficient	None		

ORTHODONTIC MANUFACTURER SIA SRL

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REACTIVITY

Stability and reactivity: stable and not reactive

⇒

HAZARDS IDENTIFICATION

Information on toxicity: no toxic effects caused by the material in massive form or during the usual orthodontic process have been noticed.

Possibile hazards during the working process:

⇒ **Effects of overexposure:** inhalation is very serious. A prolonged excessive exposition to dust, mist and fumes of this alloy may contribute to chronic respiratory ailments.

⇒ **Possibile cancer hazard:** Nickel is treated as a potential agent, being included in the NTP and IARC lists. Some scientific studies have found an excessive incidence of cancer of the respiratory tract among workers involved in certain steps of nickel refining processes. However, several studies on workers exposed to various forms of nickel and its compounds have not shown any increased risk of cancer.

⇒ **Primari routes of entry:** inhalation of dust and fumes.

According to the Directive 67/548/EEC all products with a minimum Nickel content of 1% are classified in the same way as suspect carcinogen (category 3) and irritating for skin. Products which these sheets refer to, have form of massive metal alloy, therefore nickel cannot develop as possible hazardous material. No toxic effects caused by the material in massive form or during the normal orthodontic practices have been noticed. A prolonged and frequent contact may cause skin irritation and other allergic reactions in subjects sensitive to nickel.

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PRODUCTS RELATED TO THIS MSDS (ARCH – WIRE – SPRING)

STAINLESS STEEL ARCH AND WIRE

TWISTED ARCH

SS LIGATURES

SS KOBAYASHI

SS SPRING

FACEBOW

QUAD HELIX

PALATAL BAR

IDENTIFICATION OF THE MATERIAL

Chemical Nature, Sales Name, Use: Metal Stainless Steel wire

CHEMICAL COMPOSITION

Element / Weight (%)					
IRON	CHROMIUM	MANGANESE	MOLIBDENUM	CARBON	PHOSPHORUS
Balance	19~23	21~24	0.50~1.50	≤0.80	≤0.03
NICKEL	SULFUR	COBALT	SILICON	NITROGEN	COPPER
≤0.05	≤0.01	≤0.80	≤0.75	≤0.90	≤0.25

REACTIVITY

⇒ **Stability and reactivity:** stable and not reactive

SPECIAL PROTECTION INFORMATION

Material in the form shipped require no special protection for handling. For specific processing, the following should be observed:

FIRE REMOTENESS REQUIREMENT: General-Recommended.

SPECIAL PRECAUTIONS: Use good housekeeping practices to prevent accumulation of dust, to keep airborne dust wire shards or scrap wire at a minimum. The information set forth on this MSDS is believed to be accurate and represents the best information currently available to SIA Orthodontic Manufacturer. However, SIA Orthodontic Manufacturer makes no representation or warranties regarding the accuracy or completeness of the information and assumes no liability for any loss, damage, cost, or expense that may arise out of the use of, or reliance on the information by any person. Users should make their own investigations to determine the suitability of the information for their particular purpose.

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FIRST AID MEASURES

Inhalation: Use local ventilation and/or respiratory protective equipment to limit exposure to airborne dusts.

Skin contact: Exposure or repeated contact may irritate the skin. Avoid frequent and prolonged contact. Wash with soap and water.

Ingestion: if large amount is swallowed, get medical attention.

Eyes: Flush eyes with water.

FIRE FIGHTING MEASURES:

Flash point: N/A Flammable limits: Upper explosive limit (uel)% : N/A Lower explosive limit (lel)(%): N/A Vapor Pressure 20°C: N/A Solubility: in water (20°C) insoluble, in Organic Solvent (20°C) insoluble. Extinguishing media: In finish form, parts are not combustible Special firefighting procedures: None

HAZARDS IDENTIFICATION

Information on toxicity: Product tested for bio-compatibility with results concluding negative toxicological reaction.

CAUTION: The product may be sterilized by autoclave, and to be used from professional personnel only. *If a patient reaction is suspected, contact a physician.*

TOXICOLOGICAL INFORMATION: None

ECOLOGICAL INFORMATION: None

SPILL OR LEAK PROCEDURE STEP TO BE TAKEN IN CASE MATERIAL IS LEAKED OR SPILLED: Fine material should be swept or vacuumed. Avoid using compressed air to maneuver spills or leaks of dusty material as this may likely cause eye contamination.

DISPOSAL CONSIDERATION: Dispose of in accordance with applicable federal, state, and local regulations. **NOTE:** TREAT USED ARCHESDS AS BIOHAZARDOUS WASTE.

REGULATORY INFORMATION

⇒ **Hazardous:** none.



SCHEDA SICUREZZA (Medical Safety Data Sheet)

Revisione 2 Pagina 3 di 3
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Modello 5/1 Revisione 1
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FURTHER INFORMATION

⇒ **General information:** The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. Therefore, it should not be construed as guaranteeing specific properties.

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