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## MATERIAL SAFETY DATA SHEET – STAINLESS STEEL PRODUCTS

### 1 Associated products

Mandibular Locking Unit, Spring Jumpers, Elastic Jumpers, Tubular Jumper, Instruments, Ligature Wire, Springs, Surgical Ball Hooks, Stainless Steel Wires, Arch Hooks and Stops, Arch Lock, Expansion Screws, Face bows, Burs and Instruments.

### 2 Composition

Chemical composition %

Steel type	Elements									
	C	Si	Mn	P	S	Cr	Mo	Ni	others	Fe
AISI 301	≤0.15	≤1.00	≤2.00	≤0.045	≤0.030	16.0-	-	6.00-8.00	-	rest
AISI 302	≤0.15	≤1.00	≤2.00	≤0.045	≤0.030	17.0-	-	8.00-10.00	-	rest
AISI 303	≤0.15	≤1.00	≤2.00	≤0.200	≥0.150	17.0-	-	8.00-10.00	Zr o Mo ≤0.60	rest
AISI 304	≤0.08	≤1.00	≤2.00	≤0.045	≤0.030	18.0-	-	8.00-10.50	-	rest
AISI 304L	≤0.03	≤1.00	≤2.00	≤0.045	≤0.030	18.0-	-	8.00-12.00	-	rest
AISI 305L	≤0.08	≤1.00	≤2.00	≤0.045	≤0.030	17.0-	-	10.50-13.00	-	rest
AISI 316L	≤0.03	≤1.00	≤2.00	≤0.045	≤0.030	16.0-	2.00-	10.00-14.00	-	rest
AISI 316L+S	≤0.03	≤1.00	≤2.00	≤0.045	0.01-0.03	17.0-	2.00-		-	rest
AISI 316L	≤0.03	≤1.00	≤2.00	≤0.025	≤0.010	17.0-19.0	2.25-3.00	13.00-15.00	N ≤0.10; Cu ≤0.50	rest
AISI 410	≤0.15	≤1.00	≤1.00	≤0.040	≤0.030	11.5-	-	-	-	rest
AISI 420	≥0.15	≤1.00	≤1.00	≤0.040	≤0.030	12.0-	-	-	-	rest
AISI 420F	≥0.15	≤1.00	≤1.25	≤0.060	≥0.15	12.0-	≤0.6	-	-	rest
AISI 440A	0.60-0.75	≤1.00	≤1.00	≤0.040	≤0.030	16.0-	≤0.75	-	-	rest
AISI 630	≤0.07	≤0.70	≤1.50	≤0.040	≤0.015	15.0-	≤0.6	3.0-5.0	5xC≤Nb≤0.45; Cu 3-5	rest
AISI 440B	0.85-0.95	≤1.00	≤1.00	≤0.040	≤0.015	17.0-	0.90-	-	V 0.07-0.12;	rest
CAS <sup>4</sup> Number of the elements	1333-86-4	7440-21-3	7439-96-5	7723-14-0	7704-34-9	7440-47-3	7439-98-7	7440-02-0	Cu 7440-50-8; Nb 7440-25-7 N 7727-37-9; Zr 7440-67-	7439-89-6

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### 3 Hazardous Components

Exposure limits for finished products related to this safety data sheet are not known. Exposure limits are stated by local laws, consult your Occupational Safety and Health Authorities. ACGIH<sub>9</sub> in the USA states the following:

- Carbon (C), occupational exposure limit (TWA): 50ppm (monoxide)
- Silicon (Si), occupational exposure limit (TWA): 10 mg/m<sub>3</sub>
- Manganese (Mn), occupational exposure limit (TWA): 5.0 mg/m<sub>3</sub>
- Chromium (Cr), occupational exposure limit (TWA): 0.5 mg/m<sub>3</sub>
- Molybdenum (Mo), occupational exposure limit (TWA): 10 mg/m<sub>3</sub>
- Copper (Cu), occupational exposure limit (TWA): 1.0 mg/m<sub>3</sub> (powder), 0.2 mg/m<sub>3</sub> (fumes)
- Iron (Fe), occupational exposure limit (TWA): 5.0 mg/m<sub>3</sub> (oxide)
- Nitrogen (N), occupational exposure limit (TWA): 3ppm (dioxide)

### 4 Physical and Chemical Characteristics

Boiling Point	High °C
Specific Gravity	7.5 – 8.5
Solubility in Water	Insoluble
Vapour Pressure	Nil at 100°C
Appearance	Solid metal
Odour	Odourless
Density at 20°C	> 3 g/cm <sup>3</sup>
pH	not applicable
Flash point	not applicable
Auto ignition temperature	not applicable
Lower explosion limit	not applicable.

### 5 Fire and Explosion hazard

Extinguishing Media	N/A
Unusual Fire & Explosion Hazards	N/A
Special Fire Fighting Procedures	N/A

### 6 Reactivity Data

Reactivity	Stable
Incompatible Materials	None
Hazardous Decomposition Products	None
Hazardous Polymerization	Will Not Occur

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## 7 Health Hazard Data

Acute Hazards	None known in form supplied
Chronic Hazards	None known in form supplied
Signs & Symptoms Of Overexposure	N/A

Routes of Entry:	Symptom:	Emergency / First Aid Procedures:
Eye Contact	Unlikely in form supplied	N/A
Skin Contact	Unlikely in form supplied	N/A
Inhalation	Unlikely in form supplied	N/A
Ingestion	Unlikely in form supplied	N/A

## 8 Special Protection Information

Ventilation	General
Respiratory Protection	Required when cutting, grinding, or welding
Protective Gloves	Required when cutting, grinding, or welding
Eye Protection	Required when cutting, grinding, or welding
Work / Hygienic Practices	Follow standard laboratory safety practices

## 9 Handling and Storage

If the product/raw material is modified prevent formation of dust. If dust/fume is developed, avoid breathing dust/fume. Avoid skin and eye contact. Make sure that all applicable workplace limits are observed.

Specific storage measures are not necessary.

Clean up in case of spill

Dispose of in accordance with local and national regulations. Do not dispose of together with household garbage, do not allow product to reach sewage and water bodies.

Recycling possibility must be verified in accordance with local and national regulations.

**Notes:** The information contained in the document is believed to be valid and accurate. Saga Dental Supply AS can no warranty the completeness of information in all possible conditions.

The products this safety data sheet refers to, are in the form of massive metallic alloy and when used under usual conditions and in accordance with the intended use, they are generally not considered hazardous to man or environment. The health hazards are mainly applicable the personnel involved in the raw material's processing.