

Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier REINFORCING NET

1.2. Relevant identified uses of the substance or mixture and uses advised against
Reinforcing net is used for reinforce upper denture base. For professional use only.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:	INTERDENT d.o.o.	<i>Production:</i> INTERDENT d.o.o.
Street:	Opekarniška cesta 26	Dol 1
Country code /Postal code/City:	SI-3000 Celje	SI-3342 Gornji Grad
Telephone:	+386(0) 425-62-00	
Fax:	+368(0) 490-62-02	

1.4 Emergency telephone number

Emergency phone: 112 (EU)
+386(0) 425-62-00 (Mon – Fri: 8.00 – 16.00)

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

Stainless steel products are not classified as hazardous according to Regulation (EC) No 1272/2008.

2.2 Label elements

None for the mixture.

2.3 Other hazards

Routes of Entry/Exposure:

Stainless steel products in their solid state and under normal condition present no inhalation, ingestion or contact health hazard. Inhaling dusts, fumes or mists which may be generated during certain manufacturing procedures such as burning, melting, welding, sawing, brazing, grinding and machining may be hazardous to your health. Dusts may be irritating to the unprotected skin and eyes. Inhalation may occur if dust or fumes are generated. Skin absorption is not likely to occur but irritation may occur when in contact with the skin. Ingestion is not likely to occur.

Carcinogenicity:

IARC, NTP, and OSHA do not list Stainless Steel alloy as a carcinogen. Chromium,

Safety Data Sheet

nickel and their compounds are listed in NTP's 7th Annual Report on Carcinogens. NTP classifies nickel metal and certain nickel compounds as "reasonably anticipated to be carcinogens." IARC classifies nickel metal as a possible human carcinogen (Group 2B) and certain nickel compounds as known human carcinogens (Group 1).

SECTION 3: Composition / information on ingredients

3.1 Mixture

Stainless Steel - grade - EN 1.4306 - AISI 304L

Chemical name	CAS Nr. EC-Number INDEX number	%	Classification according to EC 1272/2008	
			Hazardous class/hazardous category	Hazardous phrases
Iron	7439-89-6 231-096-4 /	> 60	/	/
Chromium	7440-47-3 231-157-5 /	18 - 20	/	/
Nickel	7440-02-0 231-111-4 028-002-00-7	10 – 12	Carc. 2 Skin Sens. 1	H351 H317
Manganese	7439-96-5 231-105-1 /	< 2	/	/

Net is covered by gold coating.

3.2 Additional information

For the wording of the listed risk phrases refer to section 16.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

After inhalation:

If dust or other particles are generated during processing, it is necessary to provide adequate ventilation and respiration protection. If large amounts of dust, fumes, and/or particulates have been aspirated, move person to fresh air. If symptoms develop, seek medical attention.

Safety Data Sheet

After skin contact:

If skin contact with dusts or powders, wash immediately with soap and water. Any cuts or abrasions should be treated promptly with thorough cleansing of the affected area.

After eye contact:

If eyes contact with dust or particulates, flush eyes with running water. Eye injuries from solid particles should be treated by a physician immediately.

After swallowing:

Wash off mouth with water at first and then drink cca. 100mL of water. In case of persistent symptoms consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

During processing: Coughing and/ or wheezing. Difficulty in breathing. Irritation. May cause allergic skin reaction.

Refer to Section 11 – Toxicological information

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

SECTION 5: Fire Prevention Regulations

5.1 Extinguishing media

Suitable extinguishing agents:

CO₂, foam, powder, water

Unsuitable extinguishing agents:

n.a.

5.2 Special hazards arising from the substance or mixture

Not applicable for solid product. Metallic dust or fumes may be produced during welding, burning, grinding and possibly machining.

5.3 Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Co-ordinate fire-fighting measures to the fire surroundings. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen.

Do not inhale explosion and combustion gases.

Safety Data Sheet

SECTION 6: Accidental Substance Release Regulations

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protection equipment. Avoid causing and breathing dust. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2 Environmental precautions

Do not allow product to enter sewage system or water.

6.3 Methods and material for containment and cleaning up

Dispose contaminated material according local law.

6.4 Reference to other sections

Safe handling: see section 7. Personal protection equipment: see section 8. Disposal: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Prevent formation of dust. If dust is formed, avoid breathing it. Avoid skin and eye contact. The metal powder that is formed during treatment should be suck with vacuum cleaner.

7.2 Conditions for safe storage, including any incompatibilities

Store away from acids and incompatible materials in tightly closed and correctly labelled containers.

7.3 Specific end use(s)

Product is used in dental laboratories where dental technician designs it according to patient needs.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

The OEL values for stainless steel are not defined. Because of safety reasons the PEL values for pure metal powder should be considered:

PELOSHA (Fe, fume) = 10 mg/m³

PELOSHA (Cr, metal) = 1 mg/m³

PELOSHA (Ni, fume) = 0,5 mg/m³

8.2 Exposure controls

Personal protective equipment

General protection and hygienic measures:

Safety Data Sheet

Consider good hygienic precaution.

Breathing equipment:

Use dust extractor and protective mask with FFP2 filter during treating and polishing.

Protection of hands:

Protective gloves during treating and polishing.

Eye protection:

Protective goggles during treating and polishing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	solid
Colour	GOLD
Odour	odourless
Boiling point	n.a.
Melting point	n.a.
Density at 20°C	n.a.
Solubility in water	insoluble
Flash point	n.a.
Explosion limits	n.a.

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

Not determined for product as a whole.

10.2 Chemical stability

Stainless steel alloys are stable at room temperature under normal storage and handling conditions.

10.3 Possibility of hazardous reaction

No dangerous reaction known.

10.4 Conditions to avoid

Dust-generating activities.

10.5 Incompatible materials

Safety Data Sheet

None.

10.6 Hazardous decomposition products

Metal oxides

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetic, absorption and distribution:

Toxicological information has not been established for this product as sold. The steels contain nickel (classified as a dangerous substance). Processing of this product in operations such as high temperature (burning, welding), sawing, brazing, machining and grinding may produce fumes and/or particulates, which are to be monitored.

Acute health effects:

No LC50 or LD50 has been established for stainless steel products.

Iron: LD₅₀ (rat, oral) = 1060 mg/kg

Chromium (as Cr VI): LD₅₀ (oral, rat) = 80 mg/kg

Nickel: LD₅₀ (oral, rat) > 9000 mg/kg

Eye Effects: No known human testing.

Skin Effects: May cause contact dermatitis in sensitized individuals (Ni)

Acute Inhalation Effects: Rat, oral, LDLo: 5 mg/kg (Ni);

Rat, unreported, LD50: 27500 µg/kg (Cr)

Chronic Effects: Rat, inhalation, TCLo: 100 µg/m³ /24 hrs/ 17 weeks (Ni)

Carcinogenicity: Human Limited Evidence, IARC Group 2B (Ni);

Known to be carcinogenic by NTP (as Cr).

Teratogenicity: Rat, oral, TDLo: 158 mg/kg (Ni)

Mutagenicity: Hamster, morphological transformation: 400 mg/L (Ni)

Tumorigenic: Rat, subcutaneous, TDLo: 3000 mg/kg/6 weeks (Ni)

Rat, intravenous, TDLo 2160 µg/kg/6 weeks (Cr)

Inhalation: Excessive exposure to high concentration of dust may cause irritation to the mucous membranes of the upper respiratory tract. Dusts or fumes can cause irritation and dryness of the nose and throat, coughing, bronchitis, pneumonia, chest pain, and pulmonary edema.

Eyes: Excessive exposure to high concentration of dust may cause irritation to the eyes.

Skin: Dusts or fumes can cause irritation with itching. Dermatitis may occur.

Ingestion: Ingestion of harmful amounts of this product as distributed is unlikely due to its solid insoluble form. Ingestion of dust may cause nausea or vomiting.

Chronic Health Effects:

Safety Data Sheet

Sensitization:

During processing: may cause sensitization by inhalation and skin contact. Dermatitis and allergic sensitization have been reported.

Skin effects: The most common health effect of metallic nickel in humans is an allergic skin reaction in those who are sensitive to nickel. Nickel may cause allergic contact dermatitis. Alloys containing nickel are classified for skin sensitization when the release rate of 0,5 µg Ni/cm²/week, as measured by the European Standard reference test method EN 1811, is exceeded.

Respiratory tract: Chronic exposure to certain metals in Stainless Steel alloys may cause non-progressive pulmonary fibrosis or chronic bronchitis when overexposed to elevated dust or fume concentrations. Other symptoms include shortness of breath, cough, chest tightness, and wheezing without impairment.

Carcinogenicity:

IARC, NTP and OSHA do not list steel products as carcinogens. Nickel and certain nickel compounds have been listed by NTP as being reasonably anticipated to be carcinogens. Nickel is not regulated as a carcinogen by OSHA (29 CFR 1910 Subpart Z). IARC has listed nickel compounds within group 1 (there is sufficient evidence for carcinogenicity in humans). For metallic nickel there is limited evidence in humans and experimental animals. IARC classified metallic nickel and alloys in group 2B as possibly carcinogenic.

Mutagenicity and teratogenicity:

No data available for stainless steel alloys.

SECTION 12: Ecological information

12.1 Toxicity

Not available for the product.

12.2 Persistence and degradability

In fresh and salt-water, stainless-steel alloys will eventually form metal oxides and precipitate in sediments.

12.3 Bioaccumulative potential

There is little tendency for bioaccumulation along food chain. Alloy may persist in the environment for long periods based upon the corrosive resistance, insolubility in water, and non-biodegradable properties.

12.4 Mobility in soil

Not available for the product.

12.5 Results of PBT and vPvB assessment

Safety Data Sheet

The substances in the mixture do not meet the PBT/vPvB criteria according to EC 1907/2006 REACH, annex XIII.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effect

Not known

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose according to the local law.

SECTION 14: Transport Information

	Land-Road/Railway (ADR/RID):	Inland waterways (ADNR):	Sea (IMDG):	Air (IATA):
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 special precautions			
14.7 Maritime transport in bulk according to IMO instruments	No data available			

Not a dangerous product within the meaning of the transport regulations.

SECTION 15: Regulatory information

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

EU Label Information:

Classification and labeling have been performed according to Regulative 1272/2008.

EU Hazard Symbol and Indication of Danger:

Safety Data Sheet

According to Regulation EC 1272/2008 this product is not classified.

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Revision:

Version 03 issued on December 2022 in accordance with EC 1907/2006 (Commission Regulation (EU) 2015/830) and EC 1272/2008..

Revision in accordance to changes in COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Full text of phrase codes used in this safety data sheet:

H351: Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H317: May cause an allergic skin reaction.

Legend of abbreviations:

ADR - Accord européen relatif au transport international des marchandises dangereuses par route

CAS - Chemical Abstracts Service

CLP – Classification, labeling and packaging

CMR - Carcinogenic, Mutagenic or toxic for Reproduction

DNEL - Derived No-Effect Level

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

EmS Emergency Schedule

GHS "Globally Harmonized System of Classification and Labelling of Chemicals"

IARC: International agency for research on cancer

IATA International Air Transport Association

IATA/DGR Dangerous Goods Regulations (DGR) for the air transport (IATA)

ICAO International Civil Aviation Organization IMDG International Maritime

Dangerous Goods Code PBT persistent bioaccumulative, toxic

LD50: Median lethal dose; the dose causing 50% lethality

NTP: National toxicology program

OSHA: Occupational safety and health administration

OEL: Occupational exposure limit

OSHA PELs: Permissible Exposure Limits - 8-hour TWA (time-weighted average) concentrations unless otherwise noted.

PNEC Predicted No-Effect Concentration

Safety Data Sheet

PPM parts per million

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

RID Règlement concernant le transport International ferroviaire des marchandises

Dangereuses št. vPvB very Persistent and very Bioaccumulative (zelo obstojno in se zelo lahko kopiči v organizmih)

References:

IARC: <https://monographs.iarc.fr/ENG/Monographs/vol100C/mono100C-10.pdf>

<http://monographs.iarc.fr/ENG/Monographs/vol49/mono49.pdf>

NTP: <https://ntp.niehs.nih.gov/ntp/roc/content/profiles/nickel.pdf>

OSHA; Exposure limits and health effects.

https://www.osha.gov/dts/chemicalsampling/data/CH_256200.html

Disclaimer of expressed and implied warranties:

The information contained in the safety data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.