SAFETY DATA SHEET

1. IDENTIFICATION OF SUBSTANCES / PREPARATION AND COMPANY

1.1 Product Name:	Matchmate NP20				
Product Code:	394				
Application:	Production of metal frameworks for veneering with bonding porcelain.				
1.2 Product description: Product Form: Purpose:	 Nickel-based alloy; dental continuous casting or other casting process Rod, disc, cylinder or varying geometries. The production of crowns, bridges and dentures in dentistry.				
1.3 Company:	Davis Schottlander & Davis Ltd Fifth Avenue, Letchworth Garden City Herts SG6 2WD UK Tel: +44 (0)1462 480848 Fax: +44 (0)1462 482802 msds@schottlander.co.uk www.schottlander.com				
Revision Date:	19.08.2021	V 2.0	Previous Revision	21.07.2015	V1.0

2. HAZARD IDENTIFICATION

2.1 Description of the risk:	not applicable - see section 2.2
Information concerning particular hazards for humans and for the environment: Users: Classification system:	This product needs not be labelled due to the calculation procedure of the "EC General Classification Directive for Preparations" in its latest valid version. Qualified professionals (dental technicians, dentists) The classification complies with the latest EU lists, but there are additional data from specialized literature and from the company.
2.2 GHS label elements:  Danger Attention	The following identification **is not applicable** for the product, but only for vapour, fume and dust that might be formed during its use. H351 Suspected of causing cancer. H317 May cause an allergic skin reaction. Pursuant to the 1st ATP of the CLP regulation (EC) 1272/2008, Nickel is also classified in category 3.9/1. However, this only applies to Nickel in inhalable form. According to Annex 1, chapter 1.3.4 of the CLP Regulation (EC) 1272/2008, Nickel being a compact metal is not classified in category 3.9/1.
2.3 Other hazards during treatment and processing of the alloy:	**Additional information:** For vapour, fume and dust created during the processing, the following also applies: **H372** Causes damage to organs through prolonged or repeated exposure. **H412** Toxic to aquatic life with long lasting effects.

3. COMPOSITION / INFORMATION ON INGREDIENTS

The information as to risk and precautions given in the chapters 4 to 8, 10 to 12 do not only apply to the product itself, rather to the resulting dust and vapours generated when working with it.

3.1 Chemical composition:

Nickel chromium alloy

Nickel Ni	Rest 20 – 70 %	CAS: 7440-02-0 EINECS: 231-111-4
Chromium Cr	17 – 28 %	CAS: 7440-47-3 EINECS: 231-157-5
Molybdenum Mo	4 – 14 %	CAS: 7439-98-7 EINECS: 231-107-2
Silicon Si	0 – 3 %	CAS: 7440-21-3 EINECS: 231-130-8

4. FIRST AID MEASURES

4.1 Description of the first aid measures 4.2 Most important acute and delayed symptoms and effects:	No specific action required
After inhalation:	Supply fresh air, in case of discomfort, see a doctor.
After swallowing: After skin contact: After eye contact: 4.3 Information for medical urgent care or a specialized treatment.	Rinse out mouth and give plenty of water to drink. Seek medical advice in case of persistent discomfort. Wash with soap and water. Rinse eye under running water and seek medical advice. In case of any of the above discomfort, consult an internist or ophthalmologist; follow-up examination according to BG principles:

5. FIRE FIGHTING MEASURES

5.1 Extinguishing agents	Use firefighting measures that suit the environment. ABC dry powder, foam or sand. **NO WATER!**
5.2 Special hazards emitted by the substance or composite	Metal vapours and metal oxides in the form of smoke and gas.

5.3 Advice for firefighters	Only use the extinguishing agents specified under 5.1. Avoid inhalation of fumes!

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:	In case of exposure to fumes or dust: Extractors at the workplace If there is no extractor, use respiratory protection. Ensure adequate ventilation.
6.2 Environmental precautions:	Dispose of any rests / dental scrap in an environmentally sound manner. Swarf must not enter drainage system, surface or ground water.
6.3 Methods and material for containment and cleaning up	Absorb swarf dust mechanically or by means of aspirators fill in suitable recipients for disposal; avoid raising dust. Do not use compressed air, do not blow off.
6.4 Reference to other sections:	See sections 4 and following

7. HANDLING AND STORAGE

7.1 Precautions for safe handling	Ensure good ventilation/extraction at workplace. Avoid dust formation. During thermal or chipping processing, extractors are required on the processing machines.
7.2 Conditions for safe storage, including any incompatibilities: Advice on storage compatibility:	Only store in the original packaging. The delivery units must be secured against skidding, tilting, rolling and falling. Not required
Further information on storage conditions:	none
Storage class: Classification according to the operational safety regulation: 7.3 Specific end use(s):	CI 13 not applicable Ensure traceability of lots.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameter:	Particulate matter threshold in accordance with Technical Rule for Hazardous Substances 900 ["Technische Regeln für Gefahrstoffe - TRGS 900"]
8.2 Exposure controls:	7440 – 02 - 0 Nickel MAK 0.5 mg/m³ 7440 – 47 - 3 Chromium MAK 0.5 E mg/m³ AGW 2 E mg/ m³ (1 (I); 10, EU) IOELV (EU) 2 mg/ m³ as Cr Please observe the general particulate matter threshold limits according to TRGS 900
Personal protective equipment:	**Wear safety shoes.** **Respiratory protection:** Use suitable breathing apparatus if there is inadequate ventilation. **Protective gloves:** In splash contact, protection index 2 is recommended, corresponding to more than 30 min. permeation time in accordance to EN 374. Minimum layer thickness / gloves = 0.4 mm In case of a longer and more frequent contact, protection index 6 is recommended, corresponding to more than 480 min. permeation time in accordance to EN 374. Minimum layer thickness / gloves = 0.7 mm **Material of gloves:** - Butyl rubber - Fluorinated rubber (Viton) - Nitrile-butadiene rubber - Natural rubber (latex) - Chloroprene rubber - Gloves made of Neoprene **Penetration time of the glove material:** Consult the protective glove manufacturer for the exact breakthrough time which has to be observed. **Eye protection:** Protective goggles (DIN EN 175, DIN EN 166)

General protective and hygienic measures:	**Body protection:** Light protective equipment Do not eat, drink or smoke during use. Wash hands before breaks and after finishing work. Avoid contact with eyes and skin. Do not inhale dust, smoke or fumes.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:	**Tensile strength:** ~530 - ~560 MPa **Hardness:** ~160 - ~290 HV 10 **Fracture strain:** >3 - ~30 % **Tensile module:** ~115 GPa **Density:** 8.2 - 8.5 g/m3 **Thermal expansion coefficient**: ~14 - ~16(x10-6K1) **Melting point:** ~1310 to ~1400°C **Risk of explosion:** The Product is not explosive. **pH value:** not applicable
9.2 Other information:	**Form:** Rod, disc, cylinder or varying geometries **Colour product-specific:** Metallic grey **Odor:** Odorless **Solubility in / miscibility with water:** insoluble **Flammability:** non-inflammable

10. STABILITY AND REACTIVITY

10.1 Reactivity:	not applicable
10.2 Chemical stability:	not applicable
10.3 Possibility of hazardous reactions:	not applicable
10.4 Conditions to avoid:	not applicable
10.5 Incompatible materials:	not applicable
10.6 Hazardous decomposition products:	no hazardous decomposition products known.

11. TOXICOLOGY INFORMATION

11.1 Information on toxicological effects	The product does not trigger toxic reactions and is not allergenic. Inhalation of dust may result in respiratory irritation. Irritation of the eyes and skin are possible through direct contact with the dust.

12. ECOLOGICAL INFORMATION

12.1 Toxicity:	No results known from animal testing.
12.2 Persistence and degradability:	not applicable
12.3 Bioaccumulative potential:	not known
12.4 Mobility in soil:	not applicable
12.5 Results of the PBT and vPvB assessment:	not known
12.6 Other adverse effects:	not known
	The product is not subject to classification according to the calculation method of the General Classification guideline for preparations of the European Community in the last version.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:	The disposal of the product does not entail any hazards; however, the waste must be disposed of according to national or regional regulations. **Recommendation:** Contact waste material market (alloy) regarding recycling **European Waste Catalogue 06 03 15:** - Waste created during grinding 12 01 01 - Ferrous metal filings and turnings **Uncleaned packages:** **Recommendation:** Packages that cannot be cleaned are to be disposed of in the same way as the substance. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

14. TRANSPORT INFORMATION

14.1 UN number:	-
14.2 UN proper shipping name:	not applicable
14.3 Transport hazard class:	Dental alloys are not a dangerous good under transport regulations: - Ground transport ADR/RID/ADN and GGVS/GGVE (cross-border/domestic) - Maritime transport IMDG/GGV sea - Air transport ICAO-TI and IATA-DGR
14.4 Packing group:	not applicable
14.5 Environmental hazards:	See section 13
14.6 Special precautions for user:	no specific precaution required
14.7 Transport in bulk according to Annex II of MARPOL73/78 Convention and the IBC code:	see section 14.3

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:	**Labelling according to EU Directives:** According to the EU Directives and the German Ordinance on Hazardous Substances, the product is not subject to labelling. The usual precaution measures when handling chemicals must be observed (see section 6.1). **Classification according to the German Operational Safety Regulation (BetrSichV):** not applicable **Code letter(s) and hazard description(s) of the product:** not applicable **Hazard-determining components of labelling:** not applicable
15.2 Chemical safety assessment:	not applicable

16. FURTHER INFORMATION

The information is based on our present state of knowledge, they do not constitute a guarantee of product properties and do not establish a contractual relationship. However, Schottlander does not assume any explicit or implicit guarantee or warranty as to the correctness, reliability or completeness of the information. Schottlander advises any person receiving this information, not to use the product for any other use than the intended use described in section 1.2. The user is responsible for complying with all the necessary legal regulations.

The product must be used by qualified and trained dental technicians, who are aware of the correct use and can be held responsible in case of improper use.

Relevant H- and P-phrases:	H317	May cause an allergic skin reaction.
	H351	Suspected of causing cancer
	H372	Causes damage to organs through prolonged or repeated exposure.
	H412	Harmful to aquatic life with long lasting effects.
	P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
	P260	Do not breathe dust/fume/gas/mist/vapours/spray
	P 280	Wear protective gloves/protective clothing/eye protection/ face protection.
	P285	In case of inadequate ventilation wear respiratory protection
	P302+P352	IF ON SKIN: Wash with plenty of soap and water.
Abbreviations and definitions	ADR:	Accord européen sur le transport des marchandises dangereuses par route
	CAS:	Chemical Abstracts Service (division of the American Chemical Society)
	CLP:	Classification Labelling Packaging
	EINECS:	European Inventory of Existing Commercial Chemical Substances
	GHS:	Globally Harmonized System H-phrase: Hazard statement
	IATA:	International Air Transport Association
	IATA-DGR:	Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
	ICAO:	International Civil Aviation Organization
	ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO)
	IMDG:	International Maritime Code for Dangerous Goods
	LC50:	Lethal concentration, 50 percent
	LD50:	Lethal dose, 50 percent
	P-phrase:	Precautionary statement
	PBT:	Provider Backbone Transport
	RID:	Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
	vPvB:	very persistent very bioaccumulating