

SAFETY DATA SHEET (EC 1907/2006)**STRENGTHENING WIRE****WIPLA-WIRE**

Version: **1.4 / GB**
Revision date: **26.09.2017**
Issue date: **28.01.2014**
replaces version: **1.3**
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Material no. **5425000201**
Specification **183066**
VA-Nr **01774336**

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Trade name **STRENGTHENING WIRE
WIPLA-WIRE**
REACH Registration No.: **if available listed in Chapter. 3**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant applications identified **For dental use only.**

1.3. Details of the supplier of the safety data sheet

Company **DeguDent GmbH
Postfach 1364
D-63403 Hanau**
Telephone **+49 (0)6181/59-5767**
Telefax **+49 (0)6181/59-5879**
Email address **SDB.Degudent-DE@dentsplysirona.com**

1.4. Emergency telephone number

Emergency information **+49 (0)6181/59-50 (This telephone number is available during office hours only.)**

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Carcinogenicity	Category 2	H351
Specific Target Organ Toxicity - Repeated exposure	Category 1	H372
Skin Sensitisation	Category 1	H317

2.2. Label elements**Labelling as per (EU) 1272/2008****hazard-defining component(s) (GHS)**

- nickel
- Hazard pictograms



Signal word **Danger**

Hazard statement **H351 - Suspected of causing cancer.
H372 - Causes damage to organs through prolonged or repeated exposure.
H317 - May cause an allergic skin reaction.**

Precautionary statement **P281 - Use personal protective equipment as required.
P273 - Avoid release to the environment.
P308 + P313 - IF exposed or concerned: Get medical advice/ attention.
P302 + P352 - IF ON SKIN: Wash with plenty of water/ soap.**

2.3. Other hazards

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nickel oxide is released during processing., Possible release of metallic vapors when melted., Dusts and vapors: Do not inhale.

A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

SECTION 3: Composition/information on ingredients**3.1. Substances**

-

3.2. Mixtures

Information on ingredients / Hazardous components as per EU-CLP Regulation (EC) No. 1272/2008

• iron		67.0% - 72.0%	
CAS-No.	7439-89-6	EC-No.	231-096-4
• chromium		17.0% - 18.0%	
CAS-No.	7440-47-3	EC-No.	231-157-5
• nickel		8.0% - 12.0%	
CAS-No.	7440-02-0	EC-No.	231-111-4
Carcinogenicity		Category 2	H351
Specific Target Organ Toxicity - Repeated exposure		Category 1	H372
Skin Sensitisation		Category 1	H317
• molybdenum		<= 2.0%	
CAS-No.	7439-98-7	EC-No.	231-107-2
• manganese		<= 1.0%	
CAS-No.	7439-96-5	EC-No.	231-105-1
• Silicium		< 1.0%	
CAS-No.	7440-21-3	EC-No.	215-609-9

Texts of H phrases, see in Chapter 16

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation**

Remove to fresh air.

If symptoms persist, call a physician.

Skin contact

Wash off with soap and water.

In the case of skin irritation or allergic reactions see a physician.

Eye contact

Rinse with plenty of water.

If eye irritation persists, consult a specialist.

Ingestion

Clean mouth with water and drink afterwards plenty of water.

Obtain medical attention.

4.2. Most important symptoms and effects, both acute and delayed

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Symptoms

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

If skin sensitisation has developed and a causal relationship has been confirmed, further exposure should not be allowed.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Special powder against metal fire
quenching powder
dry sand
common salt

Unsuitable extinguishing media: Water
Carbon dioxide (CO₂)

5.2. Special hazards arising from the substance or mixture

In the case of fire, the following hazardous smoke fumes may be produced: nickel oxides.

5.3. Advice for firefighters

The product itself does not burn.
Extinction measures are to be adjusted to the specific location.
Prevent fire extinguishing water from contaminating surface water or the ground water system.
In the event of fire, wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation.
Avoid breathing dust.
In case of dust being formed, provide for adequate extraction.
Ensure suitable suction/aeration at the work place and with operational machinery.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Use mechanical handling equipment.
Avoid dust formation.
Fill into marked, sealable containers.

6.4. Reference to other sections

Wear personal protective equipment; see section 8.
Disposal considerations; see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

In case of melting, soldering or grinding:
Local ventilation.
Avoid dust formation.
Dusts and vapors: Do not inhale.
In case of dust or vapor: Wear personal safety equipment
No special measures are necessary if properly handled.

7.2. Conditions for safe storage, including any incompatibilities

Storage

No special storage conditions required.

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**German storage class**

13 - Non Combustible Solids

7.3. Specific end use(s)

We are unaware of any specific end uses which go beyond the data reported in Section 1.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

• chromium			
CAS-No.	7440-47-3	EC-No.	231-157-5
Control parameters	0.5 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
Control parameters	2 mg/m3 Indicative		Time Weighted Average (TWA):(EU ELV)
• nickel			
CAS-No.	7440-02-0	EC-No.	231-111-4
Control parameters	0.5 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
Control parameters	Can be absorbed through the skin.		Skin designation:(EH40 WEL)
• molybdenum			
CAS-No.	7439-98-7	EC-No.	231-107-2
Control parameters	20 mg/m3		Short Term Exposure Limit (STEL):(EH40 WEL)
Control parameters	10 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
• manganese			
CAS-No.	7439-96-5	EC-No.	231-105-1
Control parameters	0.5 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
• Silicium			
CAS-No.	7440-21-3	EC-No.	215-609-9
Control parameters	10 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
type of exposure	Inhalable dust.		
Control parameters	4 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
type of exposure	Respirable dust.		

8.2. Exposure controls**Engineering measures**

nickel oxide is released during processing., In case of melting, soldering or grinding:, Adequate exhaustion / ventilation of the work site or machinery must be assured. Vacuuming of objects.

Personal protective equipment**Respiratory protection**

In case of working with / without sufficient object exhaustion:, Respirator with P3 particle filter

Hand protection

Protective gloves

Glove material butyl-rubber, Nitrile rubber, Natural Rubber/Natural latex (NR)

Eye/face protection

Safety glasses with side-shields, In case of smoke or dust development: goggles

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**Skin and body protection**

If nickel oxide fumes occurs: Keep clothes separate. Change contaminated clothing., Apply adequate skin protection agents before handling the product. Assure skin cleaning and skin care after work. Preventive skin protection is recommended.

Hygiene measures

If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used., Do not eat, drink, smoke, or sniff while at work. Wash your hands and/or face before breaks and before termination of work., Do not inhale smoke, dust, vapor., If workplace exposure limits are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	
Form	solid
Colour	white
Odour	odourless
Odour threshold:	not applicable
pH	not applicable (solid)
Melting point/range	> 1300 °C
Boiling point/range	not applicable (solid)
Flash point	not applicable
Evaporation rate	No data available
Flammability (solid, gas)	not flammable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Vapour pressure	not applicable
Density	7.8 g/cm ³
Water solubility	not applicable
Partition coefficient: n-octanol/water	no data available
Autoinflammability	Not capable of spontaneous combustion or heating.
Thermal decomposition	No data available
Viscosity, dynamic	no data available
Explosiveness	not applicable
Oxidizing properties	not oxidizing

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**9.2. Other information**

Other information No further physicochemical data were determined.

SECTION 10: Stability and reactivity**10.1. Reactivity**

no data available

10.2. Chemical stability

The product is chemically stable.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No dangerous reactions known.

10.4. Conditions to avoid

None known

10.5. Incompatible materials

None known

10.6. Hazardous decomposition products

Decomposition products occurring when heated above melting temperature
metallic vapors

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

Acute oral toxicity no data available

Acute inhalation toxicity no data available

Acute dermal toxicity no data available

Skin irritation no data available

Eye irritation no data available

Sensitization May cause sensitisation of susceptible persons by skin contact or by inhalation of dust.

Repeated dose toxicity no data available

Mutagenicity assessment no data available

Carcinogenicity Test substance: nickel
Suspected of causing cancer.

Toxicity to reproduction No data available

Human experience Toxic effects from handling this product are unknown as yet.

Further information No hazardous reactions are known if properly handled and stored.

SECTION 12: Ecological information**12.1. Toxicity**

No ecotoxicological data is available for this product.

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**12.2. Persistence and degradability**

Biodegradability no data available

12.3. Bioaccumulative potential

Bioaccumulation no data available

12.4. Mobility in soil

Mobility The product is insoluble in water.
No further information available

12.5. Results of PBT and vPvB assessment

A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

12.6. Other adverse effects

Further Information Dusts and water-soluble forms of the alloy:, Introduction into soil, natural water bodies or sewerage must be prevented.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Product**

Disposal according to local authority regulations.

Uncleaned packaging

Disposal according to local authority regulations.

SECTION 14: Transport information

Not dangerous according to transport regulations.

- | | |
|-------------------------------------|----|
| 14.1. UN number: | -- |
| 14.2. UN proper shipping name: | -- |
| 14.3. Transport hazard class(es): | -- |
| 14.4. Packing group: | -- |
| 14.5. Environmental hazards: | -- |
| 14.6. Special precautions for user: | No |

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National legislation****15.2. Chemical safety assessment**

Chemical safety assessment No Chemical Safety Report as per Articles 2(8), 2(9) or 14 of the REACH Regulation is required for this product.

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**SECTION 16: Other information**

Classification and applied procedure to derive the classification of mixtures according to EU Regulation (EC) No. 1272/2008 (CLP)

Classification	Classification procedure
Carc., 2 , H351 STOT RE, 1 , H372 Skin Sens., 1 , H317	

Relevant H phrases from chapter 3

H317 : May cause an allergic skin reaction.
H351 : Suspected of causing cancer.
H372 : Causes damage to organs through prolonged or repeated exposure.

Further information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

Legend

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ASTM	American Society for Testing and Materials
ATP	Adaptation to Technical Progress
BCF	Bioconcentration factor
BetrSichV	German Ordinance on Industrial Safety and Health
c.c.	closed cup
CAS	Chemical Abstract Services
CESIO	European Committee of Organic Surfactants and their Intermediates
ChemG	German Chemicals Act
CMR	carcinogenic-mutagenic-toxic for reproduction
DIN	German Institute for Standardization
DMEL	Derived minimum effect level
DNEL	Derived no effect level
EINECS	European Inventory of Existing Commercial Chemical Substances
EC50	half maximal effective concentration
GefStoffV	German Ordinance on Hazardous Substances
GGVSEB	German ordinance for road, rail and inland waterway transportation of dangerous goods
GGVSee	German ordinance for sea transportation of dangerous goods
GLP	Good Laboratory Practice
GMO	Genetic Modified Organism
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
ISO	International Organization For Standardization
LOAEL	Lowest observed adverse effect level

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LOEL	Lowest observed effect level
NOAEL	No observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
o. c.	open cup
OECD	Organisation for Economic Cooperation and Development
OEL	Occupational Exposure Limit
PBT	Persistent, bioaccumulative, toxic
PEC	Predicted effect concentration
PNEC	Predicted no effect concentration
REACH	REACH registration
RID	Convention concerning International Carriage by Rail
STOT	Specific Target Organ Toxicity
SVHC	Substances of Very High Concern
TA	Technical Instructions
TPR	Third Party Representative (Art. 4)
TRGS	Technical Rules for Hazardous Substances
VCI	German chemical industry association
vPvB	very persistent, very bioaccumulative
VOC	volatile organic compounds
VwVwS	German Administrative Regulation on the Classification of Substances Hazardous to Waters into Water Hazard Classes
WGK	Water Hazard Class
WHO	World Health Organization