

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2010

Revision: 01.04.2010

## 1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name: Stahlgoldlot Nr. 80 W-2**
- **Application of the substance / the preparation**  
Precious metall alloy for dental technology  
Hard solder
- **Manufacturer/Supplier:**  
Wieland Dental + Technik GmbH & Co.KG  
Schwenninger Str. 13  
75179 Pforzheim  
Telefon + 49 (07231)-37050, Telefax + 49 (07231)-357959
- **Further information obtainable from:**  
Abteilung Umweltschutz  
Marcus.Mueller@wieland-dental.de
- **Information in case of emergency:**  
+49 (07231)-37050  
( Diese Nummer ist nur zu Bürozeiten besetzt )

## 2 Hazards identification

- **Hazard description:**



T Toxic

- **Information concerning particular hazards for human and environment:**  
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.  
R 40 Limited evidence of a carcinogenic effect.  
R 42/43 May cause sensitisation by inhalation and skin contact.  
R 48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.
  - **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
  - **GHS label elements**
- Danger**

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H351 - Suspected of causing cancer.

**Warning**  
H317 - May cause an allergic skin reaction.
- **Prevention:**  
P285 In case of inadequate ventilation wear respiratory protection.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.
  - **Response:**  
P321 Specific treatment (see on this label).
  - **Storage:**  
P405 Store locked up.
  - **Disposal:**  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
  - **Additional information:** In compact form is this alloy not dangerous for human or the aquatic environment.

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


Trade name: **Stahlgoldlot Nr. 80 W-2**

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## 3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Metal in compact form.

### · Dangerous components:

CAS: 7440-02-0 EINECS: 231-111-4	nickel	Carc. Cat. 3;  T,  Xi; R 40-43-48/23	5-10%
CAS: 7440-48-4 EINECS: 231-158-0	cobalt	 Xn,  Xi; R 42/43-53	1-5%
CAS: 7440-22-4 EINECS: 231-131-3	silver		≤ 1%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

## 4 First-aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** After contact with the molten product, cool rapidly with cold water.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Seek immediate medical advice.

## 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** No special measures required.
- **Measures for cleaning/collecting:**  
Dispose contaminated material as waste according to item 13.  
Pick up mechanically.

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:**  
Extractor required at the object.  
Prevent formation of dust.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

## 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

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**· Ingredients with limit values that require monitoring at the workplace:**
**7440-02-0 nickel**

WEL	Long-term value: 0.5 mg/m <sup>3</sup> as Ni
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**7440-22-4 silver**

WEL	Long-term value: 0.1 mg/m <sup>3</sup>
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· **Additional information:** The lists valid during the making were used as basis.

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

· **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:**



Protective gloves

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses

## 9 Physical and chemical properties

· **General Information**

<b>Form:</b>	Solid Solid in various forms
<b>Colour:</b>	White
<b>Odour:</b>	Odourless

· **Change in condition**

**Melting point/Melting range:** 800-860°C

**Boiling point/Boiling range:** Undetermined.

· **Flash point:** Not applicable.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density at 20°C:** 15.23 g/cm<sup>3</sup>

· **Solubility in / Miscibility with water:** Insoluble.

· **Solvent content:**

· **Solids content:** 100.0 %

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## 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** Stable up to melting point.
- **Dangerous reactions** Reacts with strong acids.
- **Dangerous decomposition products:** Toxic metal oxide smoke

## 11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

7440-48-4 cobalt

Oral	LD50	6170 mg/kg mg/kg (Ratte)
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- **Primary irritant effect:**

- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.

- **Sensitization:**

Sensitization possible through inhalation.  
Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Irritant

- **Sensitisation** May cause sensitisation by inhalation and skin contact.

## 12 Ecological information

- **General notes:** Generally not hazardous for water

## 13 Disposal considerations

- **Product:**

- **Recommendation** Contact manufacturer for recycling information.

- **European waste catalogue**

10 00 00	WASTES FROM THERMAL PROCESSES
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10 07 00	wastes from silver, gold and platinum thermal metallurgy
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10 07 04	other particulates and dust
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- **Uncleaned packaging:**

- **Recommendation:** Packaging may be reused or recycled after cleaning.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## 14 Transport information

- **Land transport ADR/RID (cross-border)**

- **ADR/RID class:** -

- **Maritime transport IMDG:**

- **IMDG Class:** -

- **Marine pollutant:** No

- **Air transport ICAO-TI and IATA-DGR:**

- **ICAO/IATA Class:** -

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· UN "Model Regulation": -

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## 15 Regulatory information

· **Labelling according to EU guidelines:**

The substance is not subject to classification according to EU lists and other sources of literature known to us. Although this product is not subject to identification regulations, we recommend that the safety suggestions are observed.

Observe the general safety regulations when handling chemicals.

· **Code letter and hazard designation of product:**

T Toxic

· **Hazard-determining components of labelling:**

nickel

cobalt

· **Risk phrases:**

40 Limited evidence of a carcinogenic effect.

42/43 May cause sensitisation by inhalation and skin contact.

48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.

· **Safety phrases:**

20 When using do not eat or drink.

22 Do not breathe dust.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

60 This material and its container must be disposed of as hazardous waste.

· **National regulations:**

· **Waterhazard class:** Generally not hazardous for water.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant R-phrases**

40 Limited evidence of a carcinogenic effect.

42/43 May cause sensitisation by inhalation and skin contact.

43 May cause sensitisation by skin contact.

48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.

53 May cause long-term adverse effects in the aquatic environment.

· **Department issuing MSDS:** Abteilung Umweltschutz

· **Contact:** Herr Marcus Müller

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

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)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· **\* Data compared to the previous version altered.**