

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 04/01/2010

Reviewed on 04/01/2010

## 1 Identification of substance

- **Product details**
- **Trade name: Porta Optimum Lot 880**
- **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
- **Information department:**  
Abteilung Umweltschutz  
Marcus.Mueller@wieland-dental.de
- **Emergency information:**  
+49 (07231)-37050  
( Be kindly advised that this number can only be contacted at usual office hours.)

## 2 Composition/Data on components

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

- **Dangerous components:**

7440-22-4	silver	10-25%
7440-50-8	copper	5-10%

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

## 3 Hazards identification

- **Hazard description:** Not applicable.
- **Information pertaining to particular dangers for man 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.
- **Classification system:**  
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **WHMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **GHS label elements** Void
- **Additional information:** In compact form is this alloy not dangerous for human or the aquatic environment.

## 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.

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## 5 Fire fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing 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:**  
Pick up mechanically.  
Dispose contaminated material as waste according to item 13.

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** 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 and personal protection

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

### Components with limit values that require monitoring at the workplace:

#### 7440-22-4 silver

PEL	0.01 mg/m <sup>3</sup>
REL	0.01 mg/m <sup>3</sup>
TLV	0.1 mg/m <sup>3</sup> metal

#### 7440-50-8 copper

PEL	1* 0.1** mg/m <sup>3</sup> as Cu *dusts and mists **fume
REL	1* 0.1 R** mg/m <sup>3</sup> as Cu *dusts and mists **fume
TLV	Short-term value: 0.1** mg/m <sup>3</sup> Long-term value: 1* 0.2** mg/m <sup>3</sup> *dusts and mists; **fume; as Cu

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **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

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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 trough 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 in various forms
<b>Color:</b>	Yellow
<b>Odor:</b>	Odorless

· **Change in condition**

**Melting point/Melting range:** 860 - 880°C (1580 - 1616°F)

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

· **Flash point:** Not applicable.

· **Auto igniting:** Product is not selfigniting.

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

· **Density:** -

· **Solubility in / Miscibility with**

**Water:** Insoluble.

· **Solvent content:**

· **Solids content:** 100 %

## 10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Dangerous products of decomposition:** No dangerous decomposition products known.

## 11 Toxicological information

· **Acute toxicity:**

· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** No irritating effect.

· **Sensitization:** No sensitizing effects known.

## 12 Ecological information

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

## 13 Disposal considerations

· **Product:**

· **Recommendation:** Contact manufacturer for recycling information.

· **Uncleaned packagings:**

· **Recommendation:** Packaging can be reused or recycled after cleaning.

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· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

· **Maritime transport IMDG:**  
 · **Marine pollutant:** No

## 15 Regulations

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

7440-22-4	silver
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7440-50-8	copper
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· **TSCA (Toxic Substances Control Act):**

7440-57-5	Gold
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7440-22-4	silver
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7440-50-8	copper
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7439-88-5	iridium
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· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

7440-22-4	silver	D
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7440-50-8	copper	D
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7440-66-6	zinc (in compact form)	II
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· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

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**· Product related hazard informations:**

Although this product is not subject to identification regulations, we recommend that the safety suggestions are observed.

**· National regulations:****· Water hazard 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.

**· Department issuing MSDS:** Abteilung Umweltschutz**· Contact:** Herr Marcus Müller**· Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

HMIS: Hazardous Materials Identification System (USA)

USA