

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:** Auropol Lot M-1, Auropol Lot 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

- **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		3-8%
7440-05-3	palladium	Warning:  2.11/2	Lot M-1: 3%

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

3 Hazards identification

- **Hazard description:** Not applicable.

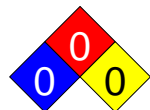
- **Information pertaining to particular dangers for man and environment:**

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.

- **NEPA ratings (scale 0 - 4)**



Health = 0

Fire = 0

Reactivity = 0

- **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.

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- **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:**
CO₂, 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.

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 ³
REL	0.01 mg/m ³
TLV	0.1 mg/m ³
	metal

7440-50-8 copper

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

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· **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 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**

Form:	Solid in various forms
Color:	Yellow
Odor:	Odorless

· **Change in condition**

Melting point/Melting range: ca. 710 - 770°C (ca. 1310 - 1418°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 reactions** Reacts with strong acids.
- **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.

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:** Yes

15 Regulations

· **Sara**

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

None of the ingredient is listed.

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

7440-22-4	silver
7440-50-8	copper

· **TSCA (Toxic Substances Control Act):**

7440-57-5	Gold
7440-22-4	silver
7440-50-8	copper
7440-05-3	palladium

· **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
7440-66-6	zinc (in compact form)	II
7440-50-8	copper	D

· **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:

No markings required.

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

USA