

Safety Data Sheet

SECTION 3: Composition / information on ingredients

3.1 Mixture

Chemical name	CAS Nr.	%	Classification according to EC 1272/2008	
			Hazardous class/hazardous category	Hazardous phrases
Silver [Ag]	7440-22-4	56 - 66	n.a.	n.a.
Palladium [Pd]	7440-05-3	18 - 32	n.a.	n.a.
Gold [Au]	7440-57-5	2 - 11	n.a.	n.a.
Copper [Cu]	7440-50-8	7 - 13	n.a.	n.a.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

No special measures required.

4.2 Most important symptoms and effects, both acute and delayed

Refer to Section 11 – Toxicological information

4.3 Indication of any immediate medical attention and special treatment needed

N.a.

SECTION 5: Fire Prevention Regulations

5.1 Extinguishing media

N.a.

5.2 Special hazards arising from the substance or mixture

Not applicable for solid product.

5.3 Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Co-ordinate fire-fighting measures to the fire surroundings. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen. Do not inhale explosion and combustion gases.

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SECTION 6: Accidental Substance Release Regulations

6.1 Personal precautions, protective equipment and emergency procedures

To prevent ingestion following use of the product, wash hands and face before eating, drinking, applying cosmetics, or using tobacco. Remove contaminated clothing or protective equipment before entering eating/drinking areas.

6.2 Environmental precautions

Prevent spills from entering sewers or contaminating soil.

6.3 Methods and material for containment and cleaning up

If a finely-divided form of product is spilled, clean up spillage so as to minimize dispersion of dust. Either wet sweeping or vacuuming using HEPA filtration is recommended.

6.4 Reference to other sections

Safe handling: see section 7. Personal protection equipment: see section 8. Disposal: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Prevent formation of dust. If dust is formed, avoid breathing it. Avoid skin and eye contact. The metal powder that is formed during treatment should be suck with vacuum cleaner.

7.2 Conditions for safe storage, including any incompatibilities

No special conditions for storage.

7.3 Specific end use(s)

Product is used in dental laboratories.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

The OEL values for alloy are not defined. Because of safety reasons the PEL values for pure metal should be considered:

Copper

ACGIH TLVs: 0.2 mg/m³ TWA (fume); 1 mg/m³ TWA (dusts and mists)

OSHA PELs: 0.1 mg/m³ TWA (fume); 1 mg/m³ TWA (dusts and mists)

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Silver

ACGIH TLV: 0.1 mg/m³ TWA (metal)OSHA PEL: 0.01 mg/m³ TWA

8.2 Exposure controls

Personal protective equipment

General protection and hygienic measures:

Consider good hygienic precaution.

Breathing equipment:

Use dust extractor and protective mask with filter during treating and polishing.

Protection of hands:

Protective gloves during treating and polishing.

Eye protection:

Protective goggles during treating and polishing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	solid
Colour	Silver-grey, metallic
Odour	odourless
Boiling point	n.a.
Melting point	Melting interval between 900 – 1100 °C
Density at 20°C	10,5 -11,5g/cm ³
Solubility in water	insoluble
Flash point	n.a.
Explosion limits	n.a.

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No data available

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10.3 Possibility of hazardous reaction

No dangerous reaction known.

10.4 Conditions to avoid

Dust-generating activities.

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, absorption and distribution:

This product has not been subject to toxicological testing.

Acute health effects:

Silver LD50: >2000 mg/kg (oral/rat)

No other data available

Chronic Health Effects:

Sensitization:

No data available

Skin effects:

No data available

Respiratory tract:

No data available

Carcinogenicity:

IARC, NTP and OSHA do not list Ag-Pd alloy products as carcinogens.

Mutagenicity and teratogenicity:

No data available

STOT-single exposure: Not classified

STOT-repeated exposure: Not classified

Aspiration hazard: No data available

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11.2 Information on other hazards

No other information available.

SECTION 12: Ecological information

12.1 Toxicity

Not available for the product.

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

Not available for the product.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to EC 1907/2006 REACH, annex XIII.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effect

Not known

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose according to the local law.

SECTION 14: Transport Information

	Land-Road/Railway (ADR/RID):	Inland waterways (ADNR):	Sea (IMDG):	Air (IATA):
14.1 UN number	No data available			
14.2 UN proper shipping name	No data available			
14.3 Transport hazard class(es)	No data available			
14.4 Packing group	No data available			
14.5	No data available			

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Environmental hazards	
14.6 Special precautions for user	No special precautions
14.7 Maritime transport in bulk according to IMO instruments	No data available
Not a dangerous product within the meaning of the transport regulations.	

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Label Information:

Classification and labeling have been performed according to Regulation 1272/2008.

EU Hazard Symbol and Indication of Danger:

According to Regulation EC 1272/2008 this product is not classified as hazardous.

15.2 Chemical safety assessment

Chemical safety assessment was not carried out.

SECTION 16: Other information

Revision:

Version 03 issued on December 2022 in accordance with EC 1907/2006 (Commission Regulation (EU) 2015/830) and EC 1272/2008.

Revision in accordance to changes in COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Legend of abbreviations:

ADR - Accord européen relatif au transport international des marchandises dangereuses par route

CAS - Chemical Abstracts Service

CLP – Classification, labeling and packaging

CMR - Carcinogenic, Mutagenic or toxic for Reproduction

DNEL - Derived No-Effect Level

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

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EmS Emergency Schedule

GHS "Globally Harmonized System of Classification and Labelling of Chemicals"

IARC: International agency for research on cancer

IATA International Air Transport Association

IATA/DGR Dangerous Goods Regulations (DGR) for the air transport (IATA)

ICAO International Civil Aviation Organization IMDG International Maritime

Dangerous Goods Code PBT persistent bioaccumulative, toxic

LD50: Median lethal dose; the dose causing 50% lethality

NTP: National toxicology program

OSHA: Occupational safety and health administration

OEL: Occupational exposure limit

OSHA PELs: Permissible Exposure Limits - 8-hour TWA (time-weighted average)

concentrations unless otherwise noted.

PNEC Predicted No-Effect Concentration

PPM parts per million

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

RID Règlement concernant le transport International ferroviaire des marchandises

Dangereuses št. vPvB very Persistent and very Bioaccumulative (zelo obstojno in se zelo lahko kopiči v organizmih)

Disclaimer of expressed and implied warranties:

The information contained in the safety data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.