

**Safety Data Sheet**  
in accordance with HSNO

Printing date 31.01.2020


Version number 5

Revision: 31.01.2020

**1 Identification of the substance or mixture and of the supplier**

- **Product identifier**
- **Trade name:** **Super Solder Ceramic Solder**
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture**  
Manufacture of dental prosthesis  
Dental alloy
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Ivoclar Vivadent Inc.  
175 Pineview Drive, Amherst, N.Y. 14228  
USA  
Tel. +1 800 533 6825  
Fax +1 716 691 2285
- Importer:**  
Ivoclar Vivadent Ltd.  
12 Omega St, Rosedale, Auckland  
New Zealand  
Tel: + 64 9 914 9999 / Fax: + 64 9 914 9990
- **Further information obtainable from:**  
Regulatory Affairs  
sds@ivoclarvivadent.com
- **Emergency telephone number:** 0800 764 766 (National Poison Centre - 24 hours / 7 days)

**2 Hazards identification**

- **Classification of the substance or mixture**  
Ox. Sol. 2 H272 May intensify fire; oxidiser.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
Carc. 2 H351 Suspected of causing cancer.  
STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.
- **Label elements**
- **GHS label elements**  
The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**  


GHS03   GHS07   GHS08
- **Signal word** Danger
- **Hazard-determining components of labelling:**  
nickel
- **Hazard statements**  
May intensify fire; oxidiser.  
May cause an allergic skin reaction.  
Suspected of causing cancer.  
Causes damage to organs through prolonged or repeated exposure.

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· **Precautionary statements**

- Obtain special instructions before use.
- Keep away from heat. - No smoking.
- Take any precaution to avoid mixing with combustibles.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Store locked up.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:**

Alloys do not require a label, providing they do not present a hazard to human health by inhalation, ingestion or contact with skin or to the aquatic environment in the form in which they are placed on the market.

· **Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/Information on ingredients

· **Chemical characterisation: Mixtures**

· **Description:** Dental alloy

· **Dangerous components:**

CAS: 7440-02-0 EINECS: 231-111-4	nickel	Carc. 2, H351; STOT RE 1, H372; Skin Sens. 1, H317	25-50%
CAS: 7440-22-4 EINECS: 231-131-3	silver		2.5-10%
CAS: 7440-31-5 EINECS: 231-141-8	tin		2.5-10%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### 4 First aid measures

· **Description of first aid measures**

· **General information:** No special measures required.

· **After inhalation:**

Grinding dust: Supply fresh air; consult doctor in case of complaints.  
In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Rinse with water.  
After contact with the molten product, cool rapidly with cold water.  
If skin irritation continues, consult a doctor.

· **After eye contact:**

Grinding dust: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.  
Mechanical effects only.

· **After swallowing:** Seek medical treatment.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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### 5 Fire fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Do not inhale explosion gases or combustion gases.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
No special measures required.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Extractors are required on all machines used for thermal processing or splinter removal processes.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Store away from reducing agents.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

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

· **Ingredients with limit values that require monitoring at the workplace:**

**CAS: 7440-02-0 nickel**

WES Long-term value: 0.005\* mg/m<sup>3</sup>  
sen; elemental or metallic; \*resp.dust

**CAS: 7440-22-4 silver**

WES Long-term value: 0.1\* 0.01\*\* mg/m<sup>3</sup>  
\*metal; \*\* soluble compds., as Ag

**CAS: 7440-31-5 tin**

WES Long-term value: 2 mg/m<sup>3</sup>

- **Additional information:** The lists valid during the making were used as basis.

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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Usual hygienic measures for dental practice and dental laboratories.  
Wash hands before breaks and at the end of work.  
Keep away from foodstuffs, beverages and feed.  
Do not inhale dust / smoke / mist.
- **Respiratory protection:** Use respiratory protective device against the effects of fumes/dust/aerosol.
- **Protection of hands:**  
Protective gloves should always be worn during mechanical and thermal processing.  
After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves**  
Mechanical processing:  
Leather gloves  
Strong material gloves  
Thermal processing:  
Heat protection gloves
- **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:**  
Always wear safety goggles during mechanical processing (grinding, sawing /cutting, drilling, milling).

### 9 Physical and chemical properties

- |  |   |
|--|---|
| · <b>Information on basic physical and chemical properties</b> |   |
| · <b>General Information</b>                                   |   |
| · <b>Appearance:</b>   |   |
| Form:  | Solid   |
| Colour:  | Grey  |
| · <b>Odour:</b>  | Odourless                                     |
| · <b>Odour threshold:</b>                                      | Not determined.                               |
| · <b>pH-value:</b>   | Not applicable.                               |
| · <b>Change in condition</b>                                   |   |
| Melting point/freezing point:                                  | 1085 - 1180 °C                                |
| Initial boiling point and boiling range:                       | Undetermined.                                 |
| · <b>Flash point:</b>  | Not applicable.                               |
| · <b>Flammability (solid, gas):</b>                            | Not determined.                               |
| · <b>Auto-ignition temperature:</b>                            | Product is not selfigniting.                  |
| · <b>Explosive properties:</b>                                 | Product does not present an explosion hazard. |
| · <b>Explosion limits:</b>                                     |   |
| Lower:   | Not determined.                               |
| Upper:   | Not determined.                               |
| · <b>Vapour pressure:</b>                                      | Not applicable.                               |
| · <b>Density:</b>  | Not determined.                               |
| · <b>Relative density</b>                                      | Not determined.                               |
| · <b>Vapour density</b>  | Not applicable.                               |
| · <b>Evaporation rate</b>                                      | Not applicable.                               |

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- |  |   |
|--|---|
| · <b>Solubility in / Miscibility with water:</b> | <i>Insoluble.</i>                                 |
| · <b>Partition coefficient: n-octanol/water:</b> | <i>Not determined.</i>                            |
| · <b>Viscosity:</b>                              |   |
| · <b>Dynamic:</b>                                | <i>Not applicable.</i>                            |
| · <b>Kinematic:</b>                              | <i>Not applicable.</i>                            |
| · <b>Other information</b>                       | <i>No further relevant information available.</i> |

### 10 Stability and reactivity

- **Reactivity** *No further relevant information available.*
- **Chemical stability** *Stable under normal handling and storage conditions.*
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions** *Reacts with reducing agents.*
- **Conditions to avoid** *No further relevant information available.*
- **Incompatible materials:** *No further relevant information available.*
- **Hazardous decomposition products:** *None under normal conditions of storage and use.*

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**
- **Skin corrosion/irritation** *No irritant effect.*
- **Serious eye damage/irritation** *Mechanical effects only.*
- **Respiratory or skin sensitisation** *No sensitising effects known.*
- **Additional toxicological information:**  
*Fumes or dusts generated from cutting or grinding operations may cause respiratory irritation.*
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
*Carc. 2*

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** *No further relevant information available.*
- **Persistence and degradability** *No further relevant information available.*
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** *No further relevant information available.*
- **Mobility in soil** *No further relevant information available.*
- **Additional ecological information:**
- **General notes:**  
*Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.*
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*
- **Other adverse effects** *No further relevant information available.*

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### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- |   |  |
|---|--|
| · <b>UN-Number</b>  | Void   |
| · <b>ADR/RID/ADN, ADN, IMDG, IATA</b>                                       | Void   |
| · <b>UN proper shipping name</b>  | Void   |
| · <b>ADR/RID/ADN, ADN, IMDG, IATA</b>                                       | Void   |
| · <b>Transport hazard class(es)</b>   |  |
| · <b>ADR/RID/ADN, ADN, IMDG, IATA</b>                                       |  |
| · <b>Class</b>  | Void   |
| · <b>Packing group</b>  |  |
| · <b>ADR/RID/ADN, IMDG, IATA</b>  | Void   |
| · <b>Environmental hazards:</b>   |  |
| · <b>Marine pollutant:</b>  | No   |
| · <b>Special precautions for user</b>                                       | Not applicable.  |
| · <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable.  |
| · <b>Transport/Additional information:</b>                                  | Product is not classified as a dangerous good for transport (ADR, IMDG, IATA). |
| · <b>UN "Model Regulation":</b>   | Void   |

### 15 Regulatory information

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

- **New Zealand Inventory of Chemicals**

All ingredients are listed.

- **HSNO Approval numbers**

CAS: 7440-02-0	nickel	HSR003031
CAS: 7440-22-4	silver	HSR003077
CAS: 7440-31-5	tin	HSR002803

- **GHS label elements**

The product is classified and labelled according to the Globally Harmonised System (GHS).

- **Hazard pictograms**



GHS03

GHS07

GHS08

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- **Signal word** *Danger*
- **Hazard-determining components of labelling:**  
*nickel*
- **Hazard statements**  
*May intensify fire; oxidiser.*  
*May cause an allergic skin reaction.*  
*Suspected of causing cancer.*  
*Causes damage to organs through prolonged or repeated exposure.*
- **Precautionary statements**  
*Obtain special instructions before use.*  
*Keep away from heat. - No smoking.*  
*Take any precaution to avoid mixing with combustibles.*  
*Do not breathe dust/fume/gas/mist/vapours/spray.*  
*Wear protective gloves/protective clothing/eye protection/face protection.*  
*Store locked up.*  
*Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** *None of the ingredients is listed.*
- **Seveso category P8** *OXIDISING LIQUIDS AND SOLIDS*
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** *50 t*
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** *200 t*
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**  
*The product is a medical device according to the Directive 93/42/EEC.*
- **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

### 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 phrases**  
*H317 May cause an allergic skin reaction.*  
*H351 Suspected of causing cancer.*  
*H372 Causes damage to organs through prolonged or repeated exposure.*
- **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)*  
*IMDG: International Maritime Code for Dangerous Goods*  
*IATA: International Air Transport Association*  
*EINECS: European Inventory of Existing Commercial Chemical Substances*  
*ELINCS: European List of Notified Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*vPvB: very Persistent and very Bioaccumulative*  
*Ox. Sol. 2: Oxidizing solids – Category 2*  
*Skin Sens. 1: Skin sensitisation – Category 1*  
*Carc. 2: Carcinogenicity – Category 2*  
*STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1*

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