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1 Identification of the substance/mixture and of the company/undertaking

- · Product identifier
- · Trade name: XL-X

• **Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.

- · Application of the substance / the preparation Manufacture of dental prothesis
- · 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

Ivoclar Vivadent Inc. 1-6600 Dixie Road Mississauga, Ontario L5T 2Y2 Canada Phone: +1 905 670 8499 Fax: +1 905 670 3102

· Information department: Quality Assurance / Regulatory Affairs

Emergency telephone number:
 24 Hour Emergency Assistance:
 Emergency-Call USA - Infotrac: 1-800-535-5053
 Emergency-Call Canada - Canutec: 1-613-996-6666

General MSDS Assistance: US: 1-800-533-6825 Canada: 1-800-263-8182

#### **2** Hazards identification

- *Classification of the substance or mixture The product is not classified according to the Globally Harmonized System (GHS).*
- · Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.
- · Information concerning particular hazards for human and environment:
- Avoid breathing of grinding dust and vapours. Melted material may cause burns. • Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · 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.

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 Classification system:
 NFPA ratings (scale 0 - 4)
 Health = 0 Fire = 0 Reactivity = 0
 HMIS-ratings (scale 0 - 4)

· Other hazards

· Results of PBT and vPvB assessment

• *PBT:* Not applicable.

• **vPvB:** Not applicable.

### **3** Composition/information on ingredients

· Chemical characterization: Mixtures

• Description: Dental alloy

#### · Dangerous components:

7440-22-4	silver	10-<25%
7440-50-8	copper	10-<25%
7440-05-3	palladium	1-<10%

#### 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: After contact with the molten product, cool rapidly with cold water.
- · 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.
- $\cdot$  Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

## **5** Firefighting measures

- · Extinguishing media
- Suitable extinguishing agents: The product is not flammable.
- Special hazards arising from the substance or mixture No further relevant information available.

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· 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.
- · 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 protection against explosions and fires: 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: Not required.
- 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 systems: No further data; see item 7.

### . 1

REL () ( TLV () ( 7440-50	0.01 mg/m <sup>3</sup> metal and soluble compounds (as Ag) 0.01 mg/m <sup>3</sup> 0.1 mg/m <sup>3</sup> metal: dust and fume <b>-8 copper</b>	
TLV () ( 1 7440-50	0.1 mg/m <sup>3</sup> metal: dust and fume <b>-8 copper</b>	
ı 7440-50	metal: dust and fume <b>-8 copper</b>	
DEL		
	1* 0.1** mg/m <sup>3</sup> as Cu *dusts and mists **fume	
	1* 0.1** mg/m <sup>3</sup> as Cu *dusts and mists **fume	
	1* 0.2** mg/m <sup>3</sup> *dusts and mists; **fume; as Cu	
Addition	nal information: The lists that were valid during the creation were used as basis.	
Persona	re controls In protective equipment: In protective and hygienic measures: Usual hygienic measures for dental practice.	

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(Contd. of page 3) • **Breathing equipment:** 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 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

General Information			
Appearance:			
Form:	Solid		
Color:	Yellow		
Odor:	Odorless		
Odour threshold:	Not determined.		
pH-value:	Not applicable.		
Change in condition			
Melting point/Melting range:	870 – 910 °C (1598 – 1670 °F)		
Boiling point/Boiling range:	Undetermined.		
Flash point:	Not applicable.		
Flammability (solid, gaseous):	Not determined.		
Auto igniting:	Product is not selfigniting.		
Danger of explosion:	Product does not present an explosion hazard.		
Explosion limits:			
Lower:	Not determined.		
Upper:	Not determined.		
Vapor pressure:	Not applicable.		
Density at 20 °C (68 °F):	13.9 g/cm <sup>3</sup> (115.996 lbs/gal)		
Relative density	Not determined.		
Vapour density	Not applicable.		
Evaporation rate	Not applicable.		
Solubility in / Miscibility with			
Water:	Insoluble.		
Partition coefficient (n-octanol/wat	e <b>r):</b> Not determined.		
Viscosity:			
Dynamic:	Not applicable.		

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 Kinematic:
 Not applicable.

 Solvent content:
 100 %

 Solids content:
 100 %

 Other information
 No further relevant information available.

### **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 No dangerous reactions known.
- · 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:
- · Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- · Additional toxicological information:

Fumes or dusts generated from cutting or grinding operations may cause respiratory irritation.

· Carcinogenic categories

· NTP (National Toxicology Program)

None of the ingredients is listed.

## **12 Ecological information**

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes: Generally not hazardous for water
- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- $\cdot$  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 packagings:

• Recommendation: Disposal must be made according to official regulations.

Transport information	
UN-Number	
DOT	NA3077
ADR, ADN, IMDG, IATA	Void
UN proper shipping name	V.: J
ADR, ADN, IMDG, IATA	Void
Transport hazard class(es)	
DOT	
Class	9 Miscellaneous dangerous substances and articles.
Label	9
ADR, ADN, IMDG, IATA	
Class	Void
Packing group	
DOT	III
ADR, IMDG, IATA	Void
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex	II of
MARPOL73/78 and the IBC Code	Not applicable.
UN "Model Regulation":	_

## **15 Regulatory information**

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

· Sara

· Section 355 (extremely hazardous substances):	
None of the ingredients 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	
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7440.50.0	(Contd. of page 6
7440-50-8 copper	
7440-06-4 platinum	
7440-74-6 indium	
7439-88-5 iridium	
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.	
Carcinogenic categories	
· EPA (Environmental Protection Agency)	
7440-22-4 silver	D
7440-50-8 copper	D
TLV (Threshold Limit Value established by ACGIH)	· ·
None of the ingredients is listed.	
NIOSH-Ca (National Institute for Occupational Safety and Health	2)
None of the ingredients is listed.	
· OSHA-Ca (Occupational Safety & Health Administration)	
None of the ingredients is listed.	
· GHS label elements Void	
• Hazard pictograms Void	
· Signal word Void	
• Hazard statements Void	
· National regulations:	
• Other regulations, limitations and prohibitive regulations	
The product is a medical device according to the EC-directive 93/42	
This product is classified as a medical device under US and Canadia	an regulations and has been reviewed by
the US Food and Drug Administration and Health Canada.	have a general aut
• Chemical safety assessment: A Chemical Safety Assessment has not	
(Athen information	
6 Other information	
This information is based on our present knowledge. However, this s specific product features and shall not establish a legally valid cont	
· Abbreviations and acronyms:	
ADR: Accord européen sur le transport des marchandises dangereuses par Route (Eur	ropean Agreement concerning the International
Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods	
DOT: US Department of Transportation	
IATA: International Air Transport Association	

IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)