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

· Product identifier

· Trade name: Academy Gold

• **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: 1-613-996-66666

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.
- \cdot 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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· HMIS-ratings (scale 0 - 4)

HEALTH
$$\bigcirc$$
 $Health = 0$ FIRE \bigcirc $Fire = 0$ REACTIVITY \bigcirc $Reactivity = 0$

· Other hazards

· Results of PBT and vPvB assessment

Reactivity = 0

• *PBT:* Not applicable.

· vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

• Description: Dental alloy

· Dangerous components:

7440-22-4 silver

7440-50-8 copper

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. • 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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10-<25%

1-<10%

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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.

Control parameters

| 7440-22-4 silver | | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------|
| PEL | 0.01 mg/m ³ metal and soluble compounds (as Ag) | |
| REL | 0.01 mg/m ³ | |
| TLV | 0.1 mg/m ³ metal: dust and fume | |
| 7440 | -50-8 copper | |
| PEL | 1* 0.1** mg/m ³ as Cu *dusts and mists **fume | |
| REL | 1* 0.1** mg/m ³ as Cu *dusts and mists **fume | |
| TLV | 1* 0.2** mg/m ³ *dusts and mists; **fume; as Cu | |
| Addi | tional information: The lists that were valid during the creation were used as basis. | |
| Perso | sure controls onal protective equipment: ral protective and hygienic measures: Usual hygienic measures for dental practice. | (Contd. on page |

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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: | <i>Odorless</i> | |
| Odour threshold: | Not determined. | |
| pH-value: | Not applicable. | |
| Change in condition | | |
| Melting point/Melting range: | 940 – 980 °C (1724 – 1796 °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): | 15.9 g/cm ³ (132.686 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 | er): Not determined. | |
| Viscosity: | | |
| Dynamic: | Not applicable. | |

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 Kinematic:
 Not applicable.

 · Solvent 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.
- · 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 | ····· |
| | NA3077 |
| ADR, ADN, IMDG, IATA | Void |
| UN proper shipping name | |
| 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 (extreme | ely hazardous substances): |
|-------------------------|-----------------------------|
| None of the ingredier | nts is listed. |
| · Section 313 (Specific | c toxic chemical listings): |
| 7440-22-4 silver | |
| 7440-50-8 copper | |
| · TSCA (Toxic Substa | unces Control Act): |
| 7440-57-5 Gold | |
| 7440-22-4 silver | |
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| | (Contd. of pag |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 7440-50-8 | ** |
| 7440-06-4 | |
| 7440-74-6 | |
| 7439-88-5 | iridium |
| Propositio | n 65 |
| Chemicals | s known to cause cancer: |
| None of th | e ingredients is listed. |
| Chemicals | s known to cause reproductive toxicity for females: |
| None of th | e ingredients is listed. |
| | s known to cause reproductive toxicity for males: |
| None of th | e ingredients is listed. |
| | s known to cause developmental toxicity: |
| None of th | e ingredients is listed. |
| Carcinoge | nic categories |
| EPA (Env | ironmental Protection Agency) |
| 7440-22-4 | |
| 7440-50-8 | copper |
| TLV (Thr | eshold Limit Value established by ACGIH) |
| None of th | e ingredients is listed. |
| NIOSH-C | a (National Institute for Occupational Safety and Health) |
| None of th | e ingredients is listed. |
| OSHA-Ca | (Occupational Safety & Health Administration) |
| • | e ingredients is listed. |
| | elements Void |
| | ctograms Void |
| Signal wo | ra voia atements Void |
| - | |
| | egulations: |
| | ulations, limitations and prohibitive regulations |
| | ct is a medical device according to the EC-directive 93/42/EEC. |
| | uct is classified as a medical device under US and Canadian regulations and has been reviewed ad and Drug Administration and Usalth Canada |
| | od and Drug Administration and Health Canada. safety assessment: A Chemical Safety Assessment has not been carried out. |
| Chemical | sujery assessment: A Chemical sujery Assessment has not been carried out. |
| | |

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.

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
 DOT: US Department of 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)
 Example: Actional System (USA)<