Printing date 06/23/2015

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Version number 3

Reviewed on 05/07/2015

1 Identification

- · Product identifier
- Trade name: Callisto Implant 33

• *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 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 SDS Assistance: US: 1-800-533-6825 Canada: 1-800-263-8182

2 Hazard(s) identification

· Classification of the substance or mixture

Skin Irrit. 2 H315 Causes skin irritation.

Eye Dam. 1 H318 Causes serious eye damage.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



· Signal word Danger

- Hazard-determining components of labeling: gallium
- Hazard statements Causes skin irritation. Causes serious eye damage.

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· Precautionary statements Wear protective gloves. Wear eye protection / face protection. Wash thoroughly after handling. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment (see on this label). If skin irritation occurs: Get medical advice/attention. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. • 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. · Classification system: · NFPA ratings (scale 0 - 4)

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· HMIS-ratings (scale 0 - 4)

| HEALTH | 0 | Health = 0 |
|------------|---|----------------|
| FIRE | 0 | Fire = 0 |
| REACTIVITY | 0 | Reactivity = 0 |

· Other hazards

· Results of PBT and vPvB assessment

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

3 Composition/information on ingredients

| · Chemical characterizati | ion: Mixtures |
|---------------------------|---------------|
|---------------------------|---------------|

• **Description:** Dental alloy

| Dangerous | components: | |
|-------------------------------|-------------|----------|
| 7440-05-3 | palladium | 50-100% |
| 7440-22-4 | silver | 2.5-<10% |
| 7440-55-3 | gallium | 2.5-<10% |
| 7440-31-5 | tin | 1-<2.5% |

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.

 $\cdot \textit{After skin contact:} After contact with the molten product, cool rapidly with cold water.$

· After eye contact:

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

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- *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 *Fire-fighting measures*

- · Extinguishing media
- Suitable extinguishing agents: The product is not flammable.
- 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.
- · 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

· Components with limit values that require monitoring at the workplace:

7440-22-4 silver

- PEL Long-term value: 0.01 mg/m³
- REL Long-term value: 0.01 mg/m³

TLV Long-term value: 0.1 mg/m³

metal: dust and fume

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| | (Contd. of page 3) |
|---|--|
| 744(| 0-31-5 tin |
| PEL | Long-term value: 2 mg/m ³ metal |
| REL | Long-term value: 2 mg/m ³ |
| TLV | Long-term value: 2 mg/m ³ metal |
| · Add | itional information: The lists that were valid during the creation were used as basis. |
| · Pers · Gen · Bred · Prot Prot Afte · Mat Mec Leat Stro Ther Hea · Pena The | osure controls conal protective equipment: eral protective and hygienic measures: Usual hygienic measures for dental practice. athing equipment: Use respiratory protective device against the effects of fumes/dust/aerosol. tection of hands: tective gloves should always be worn during mechanical and thermal processing. r use of gloves apply skin-cleaning agents and skin cosmetics. erial of gloves hanical processing: ther gloves mal processing: t protection gloves etration time of glove material exact break through time has to be found out by the manufacturer of the protective gloves and has to be erved. |

- Eye protection:
- Always wear safety goggles during mechanical processing (grinding, sawing /cutting, drilling, milling).

9 Physical and chemical properties

| Appearance: | | |
|---|---|--|
| Form: | Solid | |
| Color: | White | |
| Odor: | Odorless | |
| Odour threshold: | Not determined. | |
| pH-value: | Not applicable. | |
| Change in condition Melting point/Melting range: Boiling point/Boiling range: | 1115–1305 °C (2039–2381 °F) 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: Upper: | Not determined. Not determined. | |
| Vapor pressure: | Not applicable. | |
| Density at 20 °C (68 °F): | 12.6 g/cm ³ (105.147 lbs/gal) | |

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| | | (Contd. of page |
|------------------------------------|----------------------------|-----------------|
| · Relative density | Not determined. | |
| · Vapour density | Not applicable. | |
| · Evaporation rate | Not applicable. | |
| · Solubility in / Miscibility with | | |
| Water: | Insoluble. | |
| · Partition coefficient (n-octand | ol/water): Not determined. | |
| · Viscosity: | | |
| Dynamic: | Not applicable. | |
| Kinematic: | Not applicable. | |
| · Solvent content: | | |
| Solids content: | 100 % | |
| | | |

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.

· OSHA-Ca (Occupational Safety & Health Administration)

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.

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- · 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.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

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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.

14 Transport information

| UN-Number | |
|---|---|
| DOT | 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. |
| Transport/Additional information: | Product is not classified as a dangerous good for transport |
| - | (ADR, IMDG, IATA). |
| UN ''Model Regulation'': | - |

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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
- 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)
 D

 None of the ingredients is listed.
 D
 - · NIOSH-Ca (National Institute for Occupational Safety and Health)
 - None of the ingredients is listed.
 - · GHS label elements
 - *The product is classified and labeled according to the Globally Harmonized System (GHS). Hazard pictograms*



· Signal word Danger

• Hazard-determining components of labeling: gallium

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ELINCS: European List of Notified Chemical Substances

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2 Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1 • * Data compared to the previous version altered.

CAS: Chemical Abstracts Service (division of the American Chemical Society)

(Contd. of page 7) · Hazard statements Causes skin irritation. Causes serious eye damage. · Precautionary statements Wear protective gloves. Wear eye protection / face protection. Wash thoroughly after handling. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment (see on this label). If skin irritation occurs: Get medical advice/attention. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. · National regulations: · Other regulations, limitations and prohibitive regulations The product is a medical device according to the Directive 93/42/EEC. This product is classified as a medical device under US and Canadian regulations and has been reviewed by the US Food and Drug Administration and Health Canada. · 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. • Date of preparation / last revision 06/23/2015 / 2 · 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 Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances