1 Identification

- Product identifier
- Trade name: Y-2
- 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
  Ox. Sol. 2. H272 May intensify fire; oxidizer.

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

- Hazard pictograms

  GHS03

- Signal word Danger
- Hazard statements
  May intensify fire; oxidizer.
- Precautionary statements
  Keep away from heat.
  Take any precaution to avoid mixing with combustibles.
  Wear protective gloves / eye protection / face protection.
  Keep/Store away from clothing/combustible materials.

(Contd. on page 2)
Trade name: Y-2

In case of fire: Use for extinction: CO2, powder or water spray. 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.

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

· 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:
  7440-06-4 platinum 2.5-%10%
  7440-05-3 palladium 2.5-%10%
  7440-22-4 silver 2.5-%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.
  · 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**:
    - **7440-06-4 platinum**
      - PEL: Long-term value: 0.002 mg/m³ soluble salts, as Pt
      - REL: Long-term value: 1* 0.002** mg/m³
        *Metal **soluble salts, as Pt
      - TLV: Long-term value: 1* 0.002** mg/m³
        *metal **soluble salts, as Pt
    - **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
Trade name: Y-2

- Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls

- Personal protective equipment:

- General protective and hygienic measures: Usual hygienic measures for dental practice.

- 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

Information on basic 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: 1105–1205 °C (2021–2201 °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):

  17.4 g/cm³ (145.203 lbs/gal)

- Relative density

  Not determined.

- Vapour density

  Not applicable.

- Evaporation rate

  Not applicable.

- Solubility in / Miscibility with

  Water: Insoluble.
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.
- **Additional ecological information**:
  - **General notes**: Generally not hazardous for water
  - **Results of PBT and vPvB assessment**
    - PBT: Not applicable.
    - vPvB: Not applicable.
Trade name: Y-2

- Other adverse effects No further relevant information available.

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.

14 Transport information

- UN-Number NA3077
- DOT Void
  - ADR, ADN, IMDG, IATA Void
- UN proper shipping name Void
  - ADR, ADN, IMDG, IATA Void

- Transport hazard class(es)
  - DOT
    - Class 9 Miscellaneous dangerous substances and articles
    - Label 9
  - ADR, ADN, IMDG, IATA Void
    - Class

- Packing group
  - DOT
    - ADR, IMDG, IATA Void
    - Class III

- 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": -

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

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40.1.5

· 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)
    None of the ingredients is listed.

· 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

    GHS03

· Signal word Danger

· Hazard statements
  May intensify fire; oxidizer.

· Precautionary statements
  Keep away from heat.
  Take any precaution to avoid mixing with combustibles.
  Wear protective gloves / eye protection / face protection.
  Keep/Store away from clothing/combustible materials.
  In case of fire: Use for extinction: CO2, powder or water spray.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

· 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 / 4

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
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
Ox. Sol. 2: Oxidising Solids, Hazard Category 2

* Data compared to the previous version altered.