

Material Safety Data Sheet

Trade name: anaxdent U 56KF

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Version 2

1 Identification of substance:

- **Trade name:** anaxdent U 56KF
- **Article number:** 101U56KF
- **Application of the substance / the preparation:** gold-reduced all-purpose alloy (see technical data sheet for more details)
- **Manufacturer / Supplier:**
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- **Further information obtainable from:** Mr. Andreas Kopietz

2 Composition / Data on components:

- **Description:** precious dental alloy. Information on ingredients:

| Component | Symbol | % | CAS-No. | ACGIH 8 HR TLV | OSHA 8 HR PEL |
|-----------|--------|------|-----------|------------------------|---------------------------|
| Gold | Au | 55,9 | 7440-57-5 | - | - |
| Silver | Ag | 31,0 | 7440-22-4 | 0,01 mg/m ³ | 0,1 mg/m ³ |
| Palladium | Pd | 8,5 | 7440-05-3 | - | - |
| Iridium | Ir | 0,1 | 7439-88-5 | - | - |
| Indium | In | 2,8 | 7440-74-6 | 0,1 mg/m ³ | 0,1 mg/m ³ TWA |
| Zinc | Zn | 1,6 | 7440-66-6 | 5,0 mg/m ³ | - |
| Rhenium | Re | 0,1 | 7440-15-5 | - | - |

3 Potential risks:

- **Main risk:** Inhalation of the vapours released from the melting if the metal is held at high temperature for too long.
- **Flammability:** none
- **Chemical risks:** none
- **Skin contact:** no effects
- **Digestion:** none
- **Respiration:** Continuous inhalation of dusts occurring during processing and / or polishing may lead to irritations of the lung.
- **Note:** Exposure levels for elements in this alloy are listed in SECTION 2. The following health data is for specific elements:
SILVER: Absorption of silver compounds by ingestion, inhalation or through broken skin can cause argyria, a permanent bluish-grey discoloration of the skin, conjunctiva and mucous membranes. Generalized argyria develops after 2 to 25 years of exposure. There are no systematic effects or symptoms and no physical disability. Silver is considered an experimental equivocal tumorigenic agent by RTECS criteria.
INDIUM: May cause fetal effects based upon animal studies. May cause lung damage and blood abnormalities. Target organs: blood, kidneys, liver, lungs.
- **RHENIUM:** The toxicological properties of this material have not been investigated. Use appropriate procedures to prevent direct contact and inhalation.

4 First aid measures

- **Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids.
- **Skin:** Scrub skin thoroughly with soap and water.
- **Inhalation:** Remove affected person to fresh air and assist with additional oxygen if necessary. Get first aid if other symptoms appear.
- **Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Induce vomiting.
**Never give anything by mouth to an unconscious person. Get medical aid.

5 Fire fighting measures

- This material is fire and explosion resistant. Heating beyond the melting range may generate fumes which are not flammable.

6 Accidental release measures

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|---|-----------------------|-----------------------|--------|------|
| <ul style="list-style-type: none">• General information: Use proper personal protective equipment as described in section 8. | | | | |
| 7 Handling and storage <ul style="list-style-type: none">• Handling: Avoid inhalation of fumes while melting and dust while grinding. Wash hands thoroughly before eating or smoking to avoid ingestion.• Additional information: Store differing products and different batches separately. | | | | |
| 8 Personal protection equipment <ul style="list-style-type: none">• Breathing protection: Provide general ventilation and local exhaust to keep levels below the TLV stated in section 2. Wear a NIOSH approved respirator for dust exceeding the TLVs.• Hand: Latex gloves are recommended while grinding, heat resistant gloves should be worn while casting and handling hot metals or molds.• Eye protection: Wear eye protection suitable to each individual operation.• Other: Wear apron, lab coat or other protective clothing. | | | | |
| 9 Physical and chemical properties: <ul style="list-style-type: none">• General information<table><tr><td>Appearance:</td><td>golden casting plates</td></tr><tr><td>Odour:</td><td>none</td></tr></table>• Melting point / Melting range: 984-1078°C• Flash point: not applicable• Ignition temperature: not applicable• Density: 13,9g/cm³• Solubility: insoluble• pH-value: not applicable | Appearance: | golden casting plates | Odour: | none |
| Appearance: | golden casting plates | | | |
| Odour: | none | | | |
| 10 Stability and reactivity <p>At ordinary and high (below the melting range) temperatures, the material oxidizes but is stable. At very high temperatures the alloy produces fumes.</p> | | | | |
| 11 Toxicological information <p>No specific instructions.</p> | | | | |
| 12 Ecological information: <p>This is an environmental friendly material. With proper dust collecting equipment, 100% of this alloy can be recycled.</p> | | | | |
| 13 Waste disposal information <p>Recover dust and collect wastes because it has economic value. Dispose of at a proper scrap metal refinery.</p> | | | | |
| 14 Transport information <p>No specific instructions.</p> | | | | |
| 15 Regulations <p>No specific instructions.</p> | | | | |
| 16 Other information: <p>The information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof. However, anax dent GmbH makes no representations as to the completeness of accuracy thereof and information is supplied upon the condition that the persons receiving the above material will make their own determination as to its suitability for their purposes prior to use. In no event will anax dent GmbH be responsible for damages of any nature whatever resulting from the use of or reliance upon information. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers.</p> <ul style="list-style-type: none">• Department issuing MSDS: anax dent GmbH• Contact: Mr. Andreas Kopietz | | | | |