

## 1 Identification

### GHS Product Identifier

TAN05SG

### Other means of identification

5 MHz Quartz Monitor Crystals with Gold electrode and Chromium Adhesion Layer. Ulvac electrode pattern.

### Recommended use of the chemical and restriction on use

Quartz Monitor Crystals are a solid, non-volatile, component used for measuring thin film evaporation in optical coating applications.

### Supplier's details

Phillip Technologies, LLC  
2003 Perimeter Road  
Suite E  
Greenville, South Carolina 29605-5276  
USA

### Emergency phone number

+1-864-244-1560

## 2 Hazard(s) identification

### Classification of the substance or mixture

Quartz Monitor Crystals are **not hazardous** under OSHA Standard 29 CFR 1910.1200

### GHS label elements

May be harmful if swallowed due to choking hazard

## 3 Composition/information on ingredients

| Description              | CAS Number | EINECS Number | %  | Note   |
|--------------------------|------------|---------------|----|--|
| Gold metal (Au)          | 7440-57-5  |               | 20 | Gold is natural element that is inert, non-toxic, and non-volatile.  |
| Chromium metal (Cr)      | 7440-47-3  |               | 10 | Vacuum-deposited chromium transforms into inert and non-volatile Chromic Oxide, which is what these crystals are coated with |
| Silicon Dioxide (Quartz) | 14808-60-7 |               | 70 | Quartz is pervasive in nature. Non-toxic, non-volatile.  |

## 4 First-aid measures

### Description of necessary first-aid measures

Call a doctor in the event of oral ingestion. Possible choking hazard may exist.

### Most important symptoms/effects, acute and delayed

choking hazard due to oral ingestion. Possible upset stomach from ingestion.

**Indication of immediate medical attention and special treatment needed, if necessary**

Choking, difficulty breathing, or illness.

**5 Fire-fighting measures**

**Suitable extinguishing media**

Not Applicable

**Specific hazards arising from the chemical**

Not Applicable

**Special protective actions for fire-fighters**

Not Applicable

**6 Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Not Applicable

**Environmental precautions**

Not Applicable

**Methods and materials for containment and cleaning up**

Not Applicable. Product is solid, non-toxic, non-volatile, and non-flammable

**7 Handling and storage**

**Precautions for safe handling**

None.

**Conditions for safe storage, including any incompatibilities**

None

**8 Exposure controls/personal protection**

**Control parameters**

No PPE required for handling.

**Appropriate engineering controls**

No controlled procedures required for safe handling.

**Individual protection measures**

No PPE required for handling.

**9 Physical and chemical properties**

**Physical and chemical properties**

|                       |                        |                       |                          |
|-----------------------|------------------------|-----------------------|--------------------------|
| <b>Physical state</b> | Solid                  | <b>Odor</b>           | No Odor                  |
| <b>Appearance</b>     | Gold and Metallic Grey | <b>Odor Threshold</b> | No information available |
| <b>Color</b>          |                        |                       |                          |

| <u>Property</u>                       | <u>Values</u>     | <u>Remarks Method</u> |
|---------------------------------------|-------------------|-----------------------|
| pH                                    | no data available | None Known            |
| Melting/Freezing Point                | 1670°C            | None Known            |
| boiling Point/Boiling range           | no data available | None Known            |
| Flash Point                           | no data available | None Known            |
| Evaporation Rate                      | no data available | None Known            |
| Flammability (solid / gas)            | no data available | None Known            |
| Flammability Limit in Air             | no data available | None Known            |
| Upper Flammability Limit              | no data available | None Known            |
| Lower Flammability Limit              | no data available | None Known            |
| Vapor Pressure                        | no data available | None Known            |
| Vapor Density                         | no data available | None Known            |
| Specific Gravity                      | 60.08             | None Known            |
| Water Solubility                      | Non-soluble       | None Known            |
| Solubility in other solvents          | no data available | None Known            |
| Partition coefficient: n-octanol/wate | no data available | None Known            |
| Autoignition temperature              | no data available | None Known            |
| Decomposition temperature             | no data available | None Known            |
| Kinematic viscosity                   | no data available | None Known            |
| Dynamic viscosity                     | no data available | None Known            |
| Explosive properties                  | no data available | None Known            |
| Oxidizing properties                  | no data available | None Known            |

## 10 Stability and reactivity

### Reactivity

None under normal processing

### Chemical stability

Stable under all storage and usage conditions

### Possibility of hazardous reactions

None under normal processing

### Conditions to avoid

None

### Incompatible materials

None

### Hazardous decomposition products

None

## 11 Toxicological information

### Toxicological (health) effects

None.

### Information on the likely routes of exposure

None

**Symptoms related to the physical, chemical and toxicological characteristics**

Potential Choking Hazard

**Delayed and immediate effects and also chronic effects from short and long term exposure**

None

**Numerical measures of toxicity (such as acute toxicity estimates)**

**Toxicological Data on Ingredients:**

| <u>Ingredient</u> | <u>LD50</u>   | <u>LC50</u>   |
|-------------------|---------------|---------------|
| Quartz            | Not available | Not available |
| Gold              | Not available | Not available |
| Chromium          | Not available | Not available |

**Interactive effects**

None

**Where specific chemical data are not available**

None

**Mixtures**

None

**Mixture versus ingredient information**

None

**Other information**

None

**12 Ecological information**

**Toxicity**

None

**Persistence and degradability**

None

**Bioaccumulative potential**

None

**Mobility in soil**

None

**Other adverse effects**

None

**13 Disposal considerations**

**Disposal methods**

Bury in a secured landfill in accordance with all local, state and federal environmental regulations.  
Empty containers may be incinerated or discarded as general trash.

## 14 Transport information

### UN Number

Not available

### UN Proper Shipping Name

Not available

### Transport hazard class(es)

Not available

### Environmental hazards

Not available

### Special precautions for user

Not available

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not available

## 15 Regulatory information

### Safety, health and environmental regulations specific for the product in question

**CLEAN AIR ACT SECTION 611:** Material neither contains nor is it manufactured with ozone depleting substances (ODS).

**FEDERAL WATER POLLUTION CONTROL ACT (40 CFR 401.15):** Material contains no intentionally added or detectable (contaminant) levels of EPA priority toxic pollutants.

**CERCLA REPORTABLE QUANTITY:** None

**OSHA:** Not hazardous under 29 CFR 1910.1200

**RCRA:** Not a hazardous material or a hazardous waste by listing or characteristic.

**Extremely Hazardous Substances:** None

**Section 311/312, Hazardous Categories:** Non-hazardous

Contains no VOCs.

## 16 Other information