

**1 Identification****GHS Product Identifier**

TAN05RCSA

**Other means of identification**

5 MHz Quartz Monitor Crystals with Alloy electrode. 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
Aluminum Alloy	7429-90-5		10 - 30	Non-toxic aluminum alloy
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>	Silver and Metallic Grey	<b>Odor Threshold</b>	No information available
<b>Color</b>			

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks Method</u></b>
pH	no data available	None Known

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