

## Material Safety Data Sheet POTASSIUM GOLD CYANIDE

### Section 1 - Product Identification

Product Name : Potassium Gold Cyanide  
CAS No. : 13967-50-5  
Synonym : Phospholeum; Superphosphoric acid.; Tetraphosphoric acid  
Company Identification : Tradeasia International Pte. Limited  
Address :  
133 Cecil Street # 12-03 Keck Seng Tower, Singapore  
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### Section 2 – Composition/Information on Ingredients

#### Substances

Name of substance	Potassium Gold Cyanide
Identifiers	
CAS No	13967-50-5
Molecular formula	K[Au(CN)2]
Molar Mass	288.1 g/mol

### Section 3 – Hazardous Ingredients & Occupational Exposure Limits

#### Classification of the substances or mixture

##### Classification according to Regulation (EC) No 1272/2008

Skin corrosion (Category 1B)

H314 Causes severe skin burns and eye damage.

##### Classification according to EU Directives 67/548/EEC or 1999/45/EC

C Corrosive

R34 Causes burns.

#### Label Elements

##### GHS Label elements, including precautionary statements

Hazard Pictogram(s):



Signal Word: Danger

##### Hazard Statements:

H300 + H310 + H330 Fatal if swallowed, in contact with skin or if inhaled

H410 Very toxic to aquatic life with long lasting effects.

##### Precautionary Statements

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing.

P284 Wear respiratory protection.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

Supplemental Hazard Statements

EUH032 Contact with acids liberates very toxic gas.

**Hazards Not Otherwise Classified:** None known

#### Section 4 – First-Aid Measures

**General:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Eye contact:** Flush eyes with water as a precaution.

**Skin Contact:** Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Notes to physician:** Treat symptomatically

#### Section 5 – Employee Protection

**Suitable extinguishing media:** Use media appropriate for surrounding fire such as foam, extinguishing powder, carbon dioxide or water spray. In case of fire, cool endangered containers with water spray.

**Unsuitable extinguishing media:** High pressure water jet.

**Special hazards arising from the substance or mixture:** Releases toxic fumes under fire conditions.

**Advice for firefighters:** For fires in enclosed areas, wear self-contained breathing apparatus and full protective gear. Do not inhale combustion gases.

**Further information:** No data available

#### Section 6 – Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** Wear appropriate skin, eye and respiratory protection. Do not eat, drink or smoke while cleaning up. Ensure adequate ventilation.

**Environmental Precautions:** Prevent spills and rinsing from entering storm or sanitary sewers or other waterways and contact with soil.

**Methods and Materials for Containment and Cleaning up:** Wear appropriate personal protective gear including eye and respiratory protection. Contain spilled material for recovery by sweeping or other suitable method without raising dust. Flush spill area with water. Do not allow this material or its rinsing to enter storm or sanitary sewers or other waterways.

#### Section 7 – Handling and Storage

##### Precautions for safe handling

Avoid contact with eyes. Avoid prolonged repeated skin contact and breathing mists or vapors. Use in well-ventilated area. Do not empty waste into sanitary drains. **Conditions for safe storage, including any incompatibilities**

Store in a cool, dry area. Use with adequate ventilation. Keep container tightly closed when not in use. Store only in the original container.

#### Section 8 – Exposure Controls/Personal Protection

##### Exposure Limits/Guidelines:

ACGIH TLV - 5 mg/m<sup>3</sup> (CN)STEL/C

OSHA PEL - 5 mg/m<sup>3</sup> (CN)

OTHER LIMIT/S - 5 mg/m<sup>3</sup> (CN) NIOSH REL

**Engineering controls:** Use in well-ventilated area with local exhaust.

**Personal Protective Equipment**

**Eye and Face protection:** Chemical splash goggles or safety glasses with side shields must be worn.

**Skin and Body protection:** Wear rubber or neoprene gloves. Wear rubber apron and long sleeves to prevent skin contact. Wash hands thoroughly with soap and water handling and before eating or smoking.

**Respiratory protection:** Wear appropriate, approved respiratory protection when ventilation is adequate to meet exposure limits.

**Control of environmental exposure:** No data available

## Section 9 – Physical and Chemical Properties

### Information on basic physical and chemical properties

Physical state: Solid, powder

Color: White

Odor: Slight cyanide odor

Odor threshold: Not available

pH: Not applicable

Melting/Freezing point: Not determined

Initial boiling point: Not applicable

Flash point: Not applicable

Evaporation rate: Not applicable

Flammability (solid, gas): Not applicable

Upper/Lower explosion limits: non-explosive

Vapor pressure: Not applicable

Vapor density: Not applicable

Relative density (H<sub>2</sub>O = 1) @ 25 °C: Not applicable

Solubility: Readily soluble in water at 20 °C

Partition coefficient octanol/water: Not determined

Auto-ignition temperature: Not applicable

Decomposition temperature: Not available

Viscosity: Not applicable

### Other data

No data available

## Section 10 – Stability and Reactivity

**Reactivity:** Reacts with acids to release toxic hydrogen cyanide gas.

**Chemical Stability:** Stable under recommended storage conditions.

**Possibility of hazardous reaction:** Incompatible products. None are known

**Conditions to Avoid:** Avoid contact with incompatible chemicals and exposure to adverse storage conditions.

**Incompatible Materials:** This product is not compatible with oxidizers or strong acids. Contact of this product with acids or acid salts can release toxic hydrogen cyanide gas. This product is also not compatible with strong oxidizing agents or bases. This product is corrosive to metals.

**Hazardous Decomposition Products:** The products of thermal decomposition include hydrogen cyanide and silver, copper and potassium compounds.

**Hazardous polymerization:** Hazardous polymerization does not occur.

## Section 11 – Toxicological Information

### Acute toxicity:

Acute Toxicity Estimate (Oral) = 200-2000 mg/kg

Acute Toxicity Estimate (Dermal) = 200-1000 mg/kg

Acute Toxicity Estimate (Dermal) = 2.0-40.0 mg/L/ 4 hours

**Skin corrosion/irritation:** May cause irritation

**Serious eye damage/irritation:** May cause irritation

**Carcinogenicity:** Shall not be classified as carcinogenic.

**Reproductive toxicity:** No data available

**Specific target organ toxicity following single exposure:** No data available

**Specific target organ toxicity following repeated exposure:** No data available

**Aspiration hazard:** No data available

### Information on likely routes of exposure

**Ingestion:** Very poisonous. Ingestion may cause death or permanent injury from small quantities. Ingestion may cause an increase in the depth and rate of respiration. Cardiac irregularities often occur. Death is due to respiratory arrest of central origin. Signs are blue lips, lowered blood pressure, unconsciousness, and convulsions. Other signs may include salivation, nausea without vomiting, anxiety, confusion, vertigo, giddiness, lower-jaw stiffness, opisthotonos, paralysis, coma and bradycardia.

**Inhalation:** May cause weakness, dizziness, headache, vomiting, unconsciousness and death.

**Skin contact:** May cause "cyanide rash" with itching macular, papular, and vesicular eruptions. There is often secondary infection.

**Eye contact:** Causes severe irritation.

**Interaction with Other Chemicals Which Enhance Toxicity:** None known.

**Additional Information:** No data available

## Section 12 – Ecological Information

**Toxicity:** Based on available data, this product is anticipated to be very toxic to contaminated terrestrial/aquatic plants or animals, with the potential for long-lasting effects. This product is classified as Aquatic Toxicity – Acute (Category 1); Aquatic Toxicity – Chronic (Category 1)

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** It is to be expected this product will have mobility in soil. Some of the components may get into the soil and, ultimately, the ground water.

**Results of PBT and vPvB assessment:** No data available

**Other adverse effects:** Very toxic to aquatic life with long lasting effects

## Section 13 – Disposal Considerations

### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber. **Contaminated packaging**

Dispose of as unused product.

## Section 14 – Transport Information

### In accordance with DOT/IMDG/IATA/ADR

Proper Shipping Name: Corrosive liquids, toxic, n.o.s. (Potassium Cyanide, Potassium Gold Cyanide)

UN: UN2922

Hazard Class: 8, 6.1

Packing Group: III - Minor Danger

### Additional Information:

Marine Pollutant - Yes

## Section 15 – Regulatory Information

### 1. US Federal regulations

U.S. SARA THRESHOLD PLANNING QUANTITY: Potassium Cyanide = 100 lb. (45.4 kg)

U.S. SARA HAZARD CATEGORIES (SECTION 311/312, 40 CFR 370-21): Acute Toxicity; Specific Target Organ Effects/Single and Repeated Exposure.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Potassium Cyanide = 10 lb. (4.54 kg) Silver Cyanide = 1 lb. (4.54 kg); Copper Cyanide = 10 lb.; All Other Cyanide = 10 lb. (4.54 kg).

U.S. TSCA INVENTORY STATUS: All components of this product are listed on the TSCA Inventory.

US SARA 313: This material contains cyanide compounds that are subject to the requirements of SARA Title III and 40 CFR Part 373.

### 2. International regulations

#### CANADA

CANADIAN DSL/NDL INVENTORY STATUS: The listed components of this product are on the DSL/NDL Inventory.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITY SUBSTANCES LISTS: The components of this product are not on the CEPA Priority Substances Lists.

### 3. National regulations

No data available

### 4. US State regulations

#### POTASSIUM GOLD CYANIDE

State or local regulations	U.S. - New Jersey - Right to Know Hazardous Substance List
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## Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

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