

TriVal Acid Gold Strike

Safety Data Sheet

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Revision Date: 01/15/2022 Date of issue: 01/10/2018

SECTION 1. IDENTIFICATION

Product Name: TriVal Acid Gold Strike
Recommended use: Electroplating Activation Solution
Supplier:

Gold Plating Services
378 North Main #112 Layton,
UT 84041 Tel. (801) 546 6200
www.goldplating.com

Current SDS preparation date: 01/15/2022
Original SDS preparation date: July 1, 2019

SECTION 2. HAZARD IDENTIFICATION

Classification:

Acute Toxicity - Oral, Category 4
Skin Corrosion/Irritation, Category 1C
Eye Damage/Irritation, Category 1

Label elements and precautionary statements:

Signal word: Danger

Pictogram(s):



Hazards not otherwise classified: None

Hazard statement(s):

Harmful if swallowed
Causes severe skin burns and eye damage

Precautionary statement(s):

Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves, clothing and eye and face protection.
Do not breathe dust, fume, gas, mist, vapors or spray.
If swallowed: Call a poison center or doctor/physician if you feel unwell. Rinse mouth, do not swallow.
If swallowed: Rinse mouth. DO NOT induce vomiting.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

Wash contaminated clothing before reuse.

Dispose of contents and container in accordance with local, state and federal regulations.

SECTION 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical name	CAS Number	EINECS Number	Concentration
Potassium auricyanide	14263-59-3	238-145-9	0.75%
Hydrochloric acid	7647-01-0	231-595-7	4.40%
Cobalt Complex	7440-48-4	231-158-0	0.08%

SECTION 4. FIRST AID MEASURES

Inhalation:

Have someone contact a physician or poison control center immediately. If conscious but symptoms (nausea, difficult breathing, dizziness, etc.) are evident, first responders may give oxygen. If consciousness is impaired or patient is unconscious, oxygen and amyl nitrite should be administered by trained qualified medical squads. Amyl nitrite is given by breaking an ampoule in a gauze pad and inserting into the lip of the oxygen resuscitator mask for 15 seconds, and then taking it away for 15 seconds. Repeat this 5 or 6 times. If necessary, use a fresh ampoule every 3 minutes until the patient regains consciousness (usually 1 - 4 ampoules). Administer oxygen continuously. Guard against the ampoule entering the patient's mouth. Move the patient to an uncontaminated area. Keep the patient warm and calm.

Skin contact:

Have someone contact a physician or poison control center immediately. Immediately flush with large quantities of water for up to 5 minutes after contact and completely remove all contaminated clothing including shoes and boots. Flushing with water for up to 5 minutes is generally sufficient to effectively remove cyanide from the patient's skin. Rescue workers should protect themselves against exposure.

Eye contact:

Have someone contact a physician or poison control center immediately. Immediately flush eyes with copious amounts of water for up to 5 minutes while holding the eyelids apart. Eye contact will require further evaluation and possibly treatment. Continue rinsing the eyes during transport to the hospital.

Ingestion:

Have someone call a physician or poison control center immediately. If conscious but symptoms (nausea, difficult breathing, dizziness, etc.) are evident, first responders may give oxygen. If consciousness is impaired, administer oxygen and amyl nitrite as directed under Inhalation section. Never give anything by mouth to an unconscious person. Do not induce vomiting as this could interfere with resuscitator use. If the patient is conscious, trained, qualified medical squads may give activated charcoal slurry. (50 grams of activated carbon slurried in 400 ml of water). Give 5 ml/1 kg. of wt. - about 350 ml for an average adult.

SECTION 5. FIRE-FIGHTING MEASURES

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.

Specific hazards in case of fire: Will release toxic fumes of cyanide and hydrogen chloride under fire conditions.

Special protective equipment and precaution for fire fighters: For fires in enclosed areas, wear self-contained breathing apparatus and full protective gear. Do not inhale combustion gases.

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.

Methods and materials for containment and cleaning up:

Wear appropriate personal protective gear including eye, skin and respiratory protection. Contain spilled material and collect by absorption or other suitable method. Flush spill area with water. Do not allow this material or its rinsings to enter storm or sanitary sewers or other waterways. (See also Section 13).

Environmental precautions:

Prevent spills and rinsings from entering storm or sanitary sewers or other waterways and contact with soil.

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 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 AND PERSONAL PROTECTION

Exposure Limits:	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>Other Limits</u>
<u>Ingredient</u>			
Potassium auricyanide	5 mg/m ³ (CN) STEL	5 mg/m ³ (CN)	5 mg/m ³ (CN) NIOSH REL
Hydrogen chloride	2 ppm C, STEL	5 ppm C	5 ppm C, NIOSH REL
Cobalt Complex	0.02 mg/m ³	0.1 mg/m ³	

Appropriate engineering controls:

Use in well-ventilated area with local exhaust.

Respiratory protection:

Wear appropriate, approved respiratory protection when ventilation is inadequate to meet exposure limits.

Eye protection:

Chemical splash goggles or safety glasses with side shields must be worn.

Skin protection:

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid

Color: Pale pink, pale pink to colorless

Odor: Slight pungent odor

Odor threshold: Not available

pH: <1.0

Melting/freezing point: Not determined

Initial boiling point: Not determined

Flash point: Not applicable

Evaporation rate: Not available

Flammability (solid, gas): Not applicable

Upper/lower explosion limits: Non-explosive

Vapor pressure: Not determined

Vapor density: Not determined

Relative density (H₂O = 1) @25 °C: 1.02–1.10

Solubility: Completely soluble in water at 20 °C

Partition coefficient octanol/water: Not determined

Auto-ignition temperature: Not applicable

Decomposition temperature: Not available

Viscosity: Similar to water

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Stable, non-reactive when stored and used according to recommendations.

Chemical stability: No decomposition if used according to specifications.

Possibility of hazardous reactions: None are known.

Conditions to avoid: None reported.

Incompatible materials: Alkaline materials and oxidizing agents.

Hazardous decomposition products: Hydrogen cyanide and hydrogen chloride.

SECTION 11. TOXICOLOGICAL INFORMATION

Routes of Exposure and Symptoms

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

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.

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

Eye Contact: Causes severe irritation.

Acute and Chronic Effects from Short- and Long-term Exposure:

See Routes of Exposure and Symptoms above.

Acute Oral Toxicity: LD50: 29 mg/kg (rat, as potassium aurocyanide)
LD50: 900 mg/kg (rabbit, hydrochloric acid)

Acute Dermal Toxicity: No applicable information available.

Acute Inhalation Toxicity: LD50: 3124 ppm, 1 hour (rat, hydrochloric acid)

Acute Eye Irritation: 100 mg, rinsed, mild (rabbit, hydrochloric acid)

Dermal Irritation: No applicable information available.

Carcinogen Listings:

IARC: No

NTP: No

OSHA: No

Reproductive Effects: No applicable information available.

Target Organ Effects: No applicable information available.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity: There are no data reported for this material; however, this product is harmful to aquatic life.

Persistence and degradability: There are no data reported for this material; however, this product is harmful to aquatic life.

Bio-accumulative potential: There are no data reported for this material.

Mobility in soil: Accidental spillage may lead to penetration in the soil and groundwater. Improper handling and disposal of this material may cause environmental damage.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal:

Disposal of this material is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

SECTION 14. TRANSPORT INFORMATION

Classification for shipment by road or rail, sea (IMDG) and air (IATA/ICAO):

UN proper shipping name: Hydrochloric Acid Solution

UN number: UN1789

Transport hazard class: 8

Packing group: III

Marine Pollutant: Yes (Cyanides, inorganic, N.O.S.)

SECTION 15. REGULATORY INFORMATION**Inventory Status:**

All components are on TSCA, EINECS/ELINCS, AICS, and DSL.

U.S. Regulations:**U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:****SARA (311/312) HAZARD CATEGORIES:**

None Immediate Delayed Fire Reactive Pressure generating

SARA 313: This product contains the following SARA 313 Toxic Release Chemicals.

Chemical Name	CAS Number	Concentration
Potassium auricyanide	14263-59-3	0.75%
Hydrochloric acid	7647-01-0	4.40%
Cobalt Complex	7440-48-4	0.08

The following product components are cited on the lists below:

Chemical Name	CAS Number	List Citations
None		California Proposition 65 List

SECTION 16. OTHER INFORMATION

VOC (Volatile Organic Compounds): None

HMIS Ratings:

Health: 3 **Flammability:** 0 **Reactivity:** 0 **Personal Protection:** C

Prepared by: Terry Darger

SDS Preparation date: January 10, 2018

This SDS contains revisions in the following section(s): Section 2, 14.

The information contained herein is accurate to the best of our knowledge. Gold Plating Services makes no warranty of any kind, express or implied, concerning the safe use of this material in any process or in combination with other substances.

End of Safety Data Sheet