

GOLD/Strip Au-1 A Peroxide/Bifluoride Based Gold Stripper

Product Description

GOLD/Strip Au-1 is a liquid concentrate that, when mixed with sodium or potassium cyanide, will efficiently strip electroless or electrolytic gold from nickel, steel, ceramic, Teflon, copper, and copper alloys (brass) with minimal or no attack on the substrate. GOLD/Strip Au-1 employs a weak organic oxidizer, which in slightly alkaline media (pH 8-10) will selectively strip and complex gold as a cyanide ligand. Once the stripping solution is saturated, gold can be recovered by treatment with sodium chlorite (cyanide destruction by oxidation) or removed by electrowinning.

Caution!! Solutions of cyanide are extremely hazardous. Cyanide can be liberated as extremely lethal hydrogen cyanide gas when acidified.

Performance Features

- GOLD/Strip Au-1 selectively strips gold with minimal attack on most underlying substrates.
- Gold in saturated solutions can be efficiently recovered.
- GOLD/Strip Au-1 can be heated to increase stripping speed.

Physical Specifications

Physical State	Liquid
Appearance	Transparent to Light Yellow
Odor	None
Specific Gravity	1.06
pH	8 – 9
Freeze/Thaw stability	Stable

Equipment Requirements

Tanks: Constructed Of Polyethylene, Polypropylene, PVC, Or CPVC.

Racks: Should Be Polyethylene, Polypropylene, Or Plastisol Coated Steel.

Heaters: Constructed Of Quartz Or Teflon. (Steel Is Not Recommended.)

Cooling Coils: Not Required.

Ventilation: Required.

Technical Data Sheet

Product Make-Up

GOLD/Strip Au-1 is concentrated and must be diluted prior to use. Use the following procedure to prepare a working bath of GOLD/Strip Au-1.

Procedure

1. Thoroughly rinse the tank and inspect for cleanliness paying special attention to the heaters and heater sheathings, and cooling coils.
2. Fill the stripping tank to 50% of the desired final volume with water. DI or RO water is recommended but not required.
3. Add the desired volume of GOLD/Strip Au-1, such that the final concentration is between 10 and 20% of the final desired volume.
4. Measure the pH of the above bath. If the pH is below 8, ADD SODIUM HYDROXIDE TO RAISE THE pH ABOVE 8, BUT NOT HIGHER THAN 10!!
5. After the pH has been measured and properly adjusted, add 10 g/L of sodium or potassium cyanide and mix until the cyanide salt is completely dissolved.
6. Dilute to the final desired volume with water.

Operating Parameters

GOLD/Strip Au-1 is employed in IMMERSION STRIPPING applications only. The following operating parameters are recommended for optimum performance:

Parameter	Optimum	Range
Temperature (°F)	90	80 - 100
Immersion Time (Minutes)	---	5 – 30 (Depending Upon Gold Thickness)
Agitation	---	Mild Solution Or Mechanical
Ventilation	---	Required
pH	9	8 – 10 (Must Be Kept Above 8!)
Post Rinse	---	Water Post Rinse Required. In Some Applications When Stripping From Copper Or Brass The Use Of An Anti Tarnish Post Dip May Be Required.

Control and Replenishment

The stripping speed of GOLD/Strip Au-1 can be maintained by adding sodium or potassium cyanide at a concentration of 2 grams per liter when the stripping speed begins to noticeably slow. No more than 8 grams per liter of sodium or potassium cyanide should be added to the working bath, after which point the bath must be replaced.

Technical Data Sheet

Safety and Handling

Users should familiarize themselves with the safety hazards of sodium or potassium cyanide by thoroughly reviewing the MSDS sheet for these materials, including the use of amyl nitrate inhalants in the event of exposure to hydrogen cyanide gas.

GOLD/Strip Au-1 should be stored away from direct sunlight and in an area where the temperature does not exceed 100°F. Precautionary measures including eye and face shields, rubber gloves, boots, and aprons should be worn when handling this material. It is strongly recommended that contact lenses not be worn when working with chemicals because they may contribute to the severity of an eye injury.

Waste Treatment

Individual users should verify the nature of spent solutions to assure compliance with local, state, and federal regulations. Contact Seacole for specific details and/or further waste treatment recommendations.

Ordering Information

GOLD/Strip Au-1 is available in 5-gallon pails, 55-gallon drums, and 275 gallon totes.

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