

MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: TRANSENE COMPANY, INC.
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MATERIAL NAME: **BRIGHT ELECTROLESS GOLD**

REVISED: January 2012

CHEMICAL FAMILY: Gold Cyanide Complex

Product Number: 110-0190000

SECTION 2. HEALTH HAZARD INFORMATION

GHS Classifications

Oxidizing liquids : Not classified

Corrosive to metals: Category 1

Acute toxicity oral : Category 1

Acute toxicity inhalation : Category 1

Acute toxicity dermal: Category 1

Skin corrosion / skin irritation : Category 2

Serious eye damage / Eye irritation : Category 2A

Respiratory or skin sensitization : Not classified

Special target organ systemic toxicity single exposure: Not classified

Special target organ systemic toxicity repeated exposure : Not classified

Acute aquatic environmental hazards : Category 1

Chronic aquatic environmental hazards: Category 1

Pictograms or Hazard symbols



Warning: May be corrosive to metals.



Danger: Fatal if swallowed, in contact with skin, or inhaled.



Warning: Causes skin irritation and serious eye irritation.



Warning: Very toxic to aquatic life with long lasting effects.

Precautionary Statement Prevention

Use only in a well-ventilated area. Do not eat, drink or smoke when using this product. Do not breathe fume/gas/mist/vapors/spray.

Wear protective gloves/protective clothing /eye protection/face protection.

Wash hands thoroughly after handling.

Avoid release to the environment

SECTION 3.COMPOSITION/INFORMATION ON INGREDIENTS

Material		Wt %	Toxicity
Potassium Gold Cyanide	CAS# 13967-50-5	< 1	10 mg/m ³
Citric Acid	CAS# 62-56-6	1-5	
Tetrasodium EDTA	CAS# 584-08-7	1-5	2 g/kg
Ammonium Hydroxide	CAS# 133-62-16	1-5	50 ppm
Water	CAS# 7732-18-5	85-95	

SECTION 4. FIRST AID MEASURES

EFFECTS OF OVEREXPOSURE

FIRST AID:

Eye Contact: Both liquid and vapor are irritating to naked eye; in case of contact flush eyes well for 15 minutes, lifting the lower and upper eyelids occasionally. May cause permanent eye damage or blindness. Seek medical attention.

Skin Contact: Obtain medical attention immediately. Liquid is corrosive to exposed skin. Flush skin well with water for 15 minutes, wash with soap and water. Remove affected clothing, get medical attention. May result in death. Special medical treatment is required.

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration. Seek medical attention. Inhalation of vapors may cause death. Break an amyl nitrite pearl in cloth and hold lightly over nose for not more than 15-20 seconds. Repeat every 5 minutes if recovery is not forthcoming. Provide oxygen in between applications.

Ingestion: May be fatal. Administer oxygen and amyl nitrite. Seek immediate medical attention.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point and Method	Autoignition Temp.	Flammability Limits In Air	<u>LOWER</u>	<u>UPPER</u>
non-flammable	NA		NA	NA

Extinguishing media: Use water spray or suitable agent for surrounding fire. Do not use carbon dioxide or other acidic type extinguisher.

Special fire fighting procedures: Wear chemically retardant gear and NIOSH approved self-contained breathing apparatus. Thermal decomposition produces toxic fumes. Exposure to acidic media may cause the liberation of toxic hydrogen cyanide gas. Keep out of sewers or waterways.

Toxic gases released: Hydrogen cyanide.

SECTION 6. ACCIDENTAL RELEASE MEASURES

SPILLS, LEAKS: Ventilate area of leak or spill. Stop leak if possible to do so without risk. Clean-up personnel must wear protective clothing and NIOSH approved respirator. Dike and cover the contaminated areas with absorbent, non-acidic, non-combustible material such as earth, sand, or vermiculite. Neutralize with alkaline material such as soda ash or lime. Do not use combustibles. Do not flush to sewer or waterways.

SECTION 7. HANDLING AND STORAGE

Wash thoroughly after handling. Remove contaminated clothing and wash before re-use. Do not breathe mist or vapor. Do not expose eyes, skin, or clothing. Keep container closed tightly. Avoid contact with acids. Do not use with metal tools or items. Use with adequate ventilation or respiratory protection. Do not store near acids or in direct sunlight. Store in a cool, dry, well-ventilated area away from incompatible substances. Residue in empty containers will still be hazardous.

SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION

Respiratory protection: Wear NIOSH/MESA approved full or half face piece (with goggles) respiratory protective equipment to avoid exposure to iodine vapors above 0.1ppm. A respiratory protection program complying with requirements of 29CFR 1910.134 is recommended.

Ventilation: Where adequate ventilation is not available, use NIOSH approved vapor respirator with dust, fume and mist filters. Local ventilation through fume hoods or laminar flow stations is also preferred. Keep fumes away from strong acids.

Protective gloves: Skin contact should be avoided through use of acid resistant gloves.

Other protective equipment: Steel tipped shoes/eye wash station/chemical safety chemical retardant clothing.

Eye protection: Safety goggles / face shield. Do not wear contact lenses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form :	Liquid
Appearance :	Colorless
Odor :	Characteristic almond odor
pH :	> 9
Melting point:	-5 °C
Boiling point/Boiling range :	103-105 °C
Flash point :	Non-flammable.
Ignition point :	Will not ignite.
Danger of explosion:	Product is not explosive
Decomposition temperature:	> 150 °C
Vapor density (Air = 1) :	2.21 @ 70 °F
Volatiles, %:	85-95
Vapor pressure at 15° C, mm Hg:	~0.08
Specific gravity :	1.04 g/cc
Solubility in / Miscibility:	Completely miscible in water
Evap. Rate (Water = 1):	No information found

and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S29: Do not empty into drains.

SECTION 16. OTHER INFORMATION

NFPA Codes:

Health: 3

Flammability: 0

Reactivity: 1

WHMIS Codes:

Health: 4

Flammability: 0

Reactivity: 1

Ingredients are TSCA listed.