

**EMS CATALOG NO:** 2529x-2530x  
**EMS PRODUCT:** Biotinylated Albumin  
Gold Conjugates  
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## MATERIAL SAFETY DATA SHEET

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## FOR PRODUCT AND SALES INFORMATION

CONTACT ELECTRON MICROSCOPY SCIENCES OFFICE ABOVE.

## PRODUCT IDENTIFICATION

**PRODUCT NAME:** Biotinylated Albumin Gold Conjugates

## COMPOSITION AND INFORMATION ON INGREDIENTS

**THIS PRODUCT CONTAINS:** Biotinylated Albumin conjugated with colloidal gold particles in solution.

**INGREDIENTS:** Biotinylated Albumin, stabilized colloidal gold in a buffer solution containing sodium phosphate and sodium chloride. Preservative: sodium azide 0.05% by weight.

## HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** Sodium azide reacts with lead and copper plumbing forming highly explosive metal azides.

**ROUTES OF ENTRY:** Inhalation, ingestion and skin absorption.

**EFFECTS OF OVEREXPOSURE:** Colloidal Gold Compounds may cause contact dermatitis.

## FIRST AID MEASURES

**EYE CONTACT:** Flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

**SKIN CONTACT:** Flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes immediately. Call a physician.

**INGESTION:** Wash out mouth with water, provided person is conscious. Do not induce vomiting. Call a physician.

**INHALATION:** Move to fresh air. If breathing becomes difficult, call a physician.

## FIRE AND EXPLOSION DATA

**EXPLOSION HAZARDS:** Azide reacts with metals such as lead, copper, mercury, silver, gold and halides to form explosive compounds.

**FLASH POINT:** Not flammable

**FLAMMABLE LIMITS:** Lower: Not applicable, Upper: Not applicable

**AUTOIGNITION TEMPERATURE:** Not applicable

**EXTINGUISHING METHODS:** Use extinguishing media appropriate to surrounding fire conditions.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**SPECIFIC HAZARD(S):** May emit toxic fumes under heat exposure.

## ACCIDENTAL RELEASE MEASURES

**EVACUATION PROCEDURES AND SAFETY:** Wear rubber gloves.

**CLEANUP AND DISPOSAL OF SPILL:** Absorb on sand or vermiculite and place in closed containers for disposal. Wash spill site after material pickup is complete with copious amounts of water.

**WASTE DISPOSAL METHODS:** According to local guidelines for dilute protein solutions containing 0.05% Sodium Azide. Observe all local, state and Federal laws.

## HANDLING AND STORAGE

**MINIMUM / MAXIMUM STORAGE TEMPERATURES:** 0 - 37°C (273 - 310K)

**HANDLING:** Do not breathe vapors and mists. Do not get on skin or in eyes. Do not ingest. Use handling, storage and disposal procedures that will prevent contamination of water, food or feed. Avoid freezing.

**STORAGE:** Store in a refrigerator

## EXPOSURE CONTROLS/PERSONAL PROTECTION

**RESPIRATORY PROTECTION:** Not applicable

**VENTILATION:** Not applicable

**PROTECTIVE GLOVES:** Compatible chemical-resistant gloves.

**EYE PROTECTION:** Chemical safety goggles.

**EXPOSURE LIMITS:** Not available.

## PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE AND APPEARANCE:** Liquid

## STABILITY AND REACTIVITY DATA

**STABILITY:** The product is stable.

## TOXICOLOGICAL INFORMATION

The toxicological properties have not been thoroughly investigated.

Sodium Azide: 0.05% by weight

Oral rat LD50: 27 mg/kg

Investigated as tumorigen and mutagen. No activity known.

## ECOLOGICAL INFORMATION

**ENVIRONMENTAL FATE:** When released into the soil, included proteins are expected to biodegrade. Colloidal gold particles will not degrade, chemically inactive.

**ENVIRONMENTAL TOXICITY:** No toxicity anticipated for included proteins. Observe MSDS for Sodium Azide.

## DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL:** Dispose of unused contents in accordance with federal, state and local requirements for the disposal of alkaline solutions containing 0.05% Sodium Azide.

## TRANSPORT INFORMATION

**DOT CLASSIFICATION:** Not a DOT controlled material (United States).

**IDENTIFICATION:** Not applicable.

**SPECIAL PROVISIONS FOR TRANSPORT:** Refrigeration required to warrant activity.

## OTHER REGULATORY INFORMATION

**WORKPLACE CLASSIFICATION:** This product is considered non-hazardous.

**TSCA STATUS:** Exempt from TSCA.

**OTHER:** Laboratory reagent. For research use only. Not for diagnostic or therapeutic use.