# **MATERIAL SAFETY DATA SHEET**

Effective Date: June 1, 2014 Revision 5 Page 1 of 2

#### PRODUCT IDENTIFICATION

Name: Colloidal gold and colloidal silver labeled proteins, enzymes, and ligands.

Catalog Number(s): G-2 to G-40, XGP-2, GP-01 to GP-8006, GAP-01, FGP-01, HGP-01, RGP-01,

TGP-01, CCG-0001 to CCG-1018, GA-02, GAA-02, GAB-01 to GAB-02, FGA-02, HGA-02,GB-01 to GB-02, GE-01 to GE-03, GH-01 to GH-02, GM-01 to

GM-2701, GAF-001 to GAF-2404, SA-02, SB-01, SH-01, SP-01 to SP-014. Complex polypeptides, enzymes, lectins, antibodies, and ligands coupled to

colloidal gold or silver particles. Also, unconjugated colloidal gold particles.

Synonyms: Protein A, Horseradish Peroxidase, Strept. Avidin, D-Biotin, Purified Antibodies,

Bovine Serum Albumin, Fetuin, Ovomucoid, RNase, DNase I, Alkaline Phosphatase, Protein G, Monoclonal Antibodies, Lectins, Neoglycoproteins, Adriamycin, and Neomycin coupled to colloidal gold particles or silver colloidal

particles.

#### **EMERGENCY INFORMATION**

EY Laboratories, Inc. 107 North Amphlett Blvd. San Mateo, CA 94401

Formula:

EMERGENCY PHONE:

650-342-3296

## **HAZARDOUS COMPONENTS**

Specific protein or ligand as listed on the vial label. These solutions contain less than 0.1mg per ml. Biological activity of these proteins will vary. Although these materials are not generally considered to be hazardous they may cause allergic responses in sensitive individuals if inhaled or allowed to contact skin. Adriamycin and Neomycin are both used in cancer therapy and are cytoxic.

**EXTREME CARE** should be used when handling either of these two items. The colloidal gold and colloidal silver solutions are potentially caustic and will temporarily discolor the skin. Most solutions contain 0.02% sodium azide as a preservative.

#### **HEALTH HAZARD INFORMATION**

EXPOSURE LIMITS: None established. The toxicological properties of these products have not been

thoroughly investigated. Care should be taken when handling any of these

materials.

EFFECTS OF Any of these proteins may cause acute localized eye, skin, or mucous

OVEREXPOSURE: membrane irritation. Some sensitive individuals may develop a chronic allergic

reaction with exposure.

ROUTES OF Skin, eye, and mucous membrane contact. Care should be taken to avoid the

EXPOSURE: formation of aerosols when handling any of these solutions.

#### PHYSICAL CHARACTERISTICS

APPEARANCE: Light burgundy to purple liquid. 2nm - pale yellowish-brown liquid. SOLUBILITY: All liquids are completely miscible in water and biological buffers.

EY LABORATORIES, INC. 107 North Amphlett Blvd.

San Mateo, CA 94401

Tel: 650-342-3296 Fax: 650-342-2648 Orders: 1-800-821-0044 (Outside CA only) MSDS for Colloidal Gold Labeled Proteins, Enzymes, and Ligands Continued - page 2 of 2.

FIRE AND EXPLOSION HAZARDS Not considered to be a fire hazard.

EXTINGUISHING MEDIA: Water spray or CO<sub>2</sub>. SPECIAL FIRE FIGHTING PRECAUTIONS: None required.

NOTE: Most solution

Most solutions contain 0.05% sodium azide as a preservative. Azide may react with lead and copper plumbing to form explosive metal azides. Flush with copious amounts of water when disposing

material in the sink.

REACTIVITY DATA

STABILITY: Stable. Decomposition products are not known to be

hazardous.

HAZARDOUS POLYMERIZATION: hazardous.

Will NOT occur.

INCOMPATIBILITY: None known. (Lead and copper may react with

sodium azide).

**SPILL / LEAK PROCEDURES** 

MATERIAL RELEASE / SPILL: Avoid contact with liquid. Clean up spill with a paper towel

soaked in household bleach. Do not allow solutions to dry on environmental surfaces. Wash affected area with detergent after

the area has been treated with bleach.

WASTE DISPOSAL: Incinerate, autoclave, or dispose of paper waste in accordance

with all Local, State, and Federal regulations. Due to the small quantities of material involved these products are generally not considered to be environmental hazards. All of these proteins

are fully biodegradable.

#### **EMERGENCY FIRST AID PROCEDURES**

May be harmful if swallowed, inhaled, or allowed to absorb through the skin. Wash contacted area with water for 15 minutes. If inhaled remove to fresh air. Report exposure to the appropriate safety official. The gold and silver sols may be caustic. Consult a physician if irritation occurs, if there is any indication of an allergic response such as watering eyes, sneezing, or difficulty breathing, or if eye contact occurs.

#### SPECIAL HANDLING PRECAUTIONS

VENTILATION: No special ventilation is required but it is recommended to

handle these reagents in a fume hood when possible.

EYE PROTECTION: Safety goggles or safety glasses with side shields are

recommended.

RESPIRATORY PROTECTION: Recommended as a safety precaution. An approved respirator

may be required for those individuals already known to be

sensitive to these materials.

PROTECTIVE GLOVES: Required when handling any of these materials.

### **SPECIAL PRECAUTIONS**

San Mateo, CA 94401

This material is for research and experimental application only. It is not intended for food, drug, household, agricultural, or cosmetic use. All materials should be handled only by technically qualified individuals experienced with working with potentially hazardous chemicals. The above information is correct to the best of our knowledge. The user should make independent decisions regarding completeness of the information, based on all sources available. EY Laboratories, Inc. shall not be held liable for any damage resulting from handling or contact with the above product.

EY LABORATORIES, INC. 107 North Amphlett Blvd.

Tel: 650-342-3296 Fax: 650-342-2648 Orders: 1-800-821-0044 (Outside CA only)