

SECTION 1: IDENTIFICATION

Product Name: Goat anti-Mouse IgG (H&L) Gold Conjugate – Dressed Gold[®]

BAW Part Number(s): DGMG-B### DRESSED GOLD[®] - Goat anti-Mouse IgG (H&L) gold conjugate
Where ### indicates the volume of product vial

Manufacturer: BioAssay Works[®]
10075 Tyler Place
Suite 18
Ijamsville, MD 21754

Product Information: 1-301-874-8888

Emergency Phone Number: Contact Local Poison Control Center or 1-800-222-1222

Transport Emergency: CHEMTREC: 1-800-424-9300 (outside the U.S. 1-703-527-3887)

The product should be handled by trained laboratory personnel in a laboratory environment as indicated on the package insert/instructions. Not for consumption.

SECTION 2: HAZARD(S) IDENTIFICATION

There is no data available on the toxicity, hazards or precautions at the supplied concentrations of the components. The following information pertains to components in their undiluted states. The dilution of the components as supplied with this product mitigates their toxicity and any hazards they may present.

- **Colloidal Gold** – Overexposure may cause contact dermatitis.
- **Goat anti-Mouse IgG (H&L)** – GHS not classified as a hazard
- **Bovine Serum Albumin** – GHS not classified as a hazardous substance or mixture.
- **ProClin[®] 950** – GHS Classification Acute toxicity (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Specific target organ toxicity – single exposure (Category 3),
Respiratory system
- **Sodium Chloride** – GHS Classification Skin irritation (Category 2)
Eye irritation (Category 2)
- **Sodium Borohydride** – GHS Classification Acute toxicity, Oral (Category 3)
Acute toxicity, Dermal (Category 3)
Skin corrosion (Category 1B)
Serious eye damage (Category 1)
- **Cacodylic Acid** – GHS Classification Acute toxicity, Oral (Category 3)
Acute toxicity, Inhalation (Category 3)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 3),
Respiratory system
- **N-Ethylmaleimide** – GHS Classification Acute toxicity, Oral (Category 2)
Acute toxicity, Dermal (Category 3)
Skin corrosion (Category 1B)
Serious eye damage (Category 1)
Skin sensitization (Category 1)
- **Boric Acid** – GHS Classification Reproductive toxicity (Category 2)
- **Sodium Tetraborate** – GHS Classification Reproductive toxicity (Category 1B)

GHS Label elements, including precautionary statements➤ **Pictogram:**➤ **Signal Word: Danger**➤ **Hazard statement(s)**

H300 + H310 Fatal if swallowed or in contact with skin
H360 May damage fertility or the unborn child.
H361 Suspected of damaging fertility or the unborn child.
H410 Very toxic to aquatic life with long lasting effects.

➤ **Precautionary statement(s)**

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves / protective clothing.
P281 Use personal protective equipment as required.
P302 + P352 IF ON SKIN: Gently wash with plenty of soap and water.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P310 Immediately call a POISON CENTER or doctor/ physician.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

The following components are used in the production of Goat anti-Mouse IgG (H&L) Gold Conjugate – Dressed Gold[®]. Concentrations of the components may vary between lots:

- ❖ Colloidal Gold – CAS # 7440-57-5: Sufficient quantity to produce a concentration as listed on the product label (O.D./mL)
- ❖ Goat anti-Mouse IgG (H&L) – CAS # N/A: < 0.01% w/v
- ❖ Bovine Serum Albumin – CAS # 9048-46-8: Approx. 1.0% w/v
- ❖ Proclin[®] 950 – CAS # 2682-20-4: Approx. 0.1% v/v
- ❖ Sodium Chloride – CAS # 7647-14-5: < 0.02% w/v
- ❖ Sodium Borohydride – CAS # 16940-66-2: < 0.001% w/v
- ❖ Cacodylic Acid – CAS # 75-60-5: < 0.015% w/v
- ❖ N-Ethylmaleimide – CAS # 128-53-0: < 0.03% w/v
- ❖ Boric Acid – CAS # 10043-35-3: Approx. 0.024% w/v
- ❖ Sodium Tetraborate – CAS # 1303-96-4: Approx. 0.038% w/v

SECTION 4: FIRST-AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. Treat symptomatically.

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact: Take off contaminated clothing and shoes immediately. Wash off with soap and copious amounts of water. Consult a physician.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are listed in Sections 2 and 11.

Indication of immediate medical attention and special treatment needed, if necessary: No Data Available

SECTION 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

Specific hazards arising from the substance or mixture: Carbon oxides, Nitrogen oxides (NO_x), Sulfur oxides

Special protective equipment and precautions for fire-fighters: Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Avoid contact with skin, eyes and clothing. Use personal protective equipment (refer to Section 8). Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Methods and materials for containment and cleaning up: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed/sealed containers for disposal (refer to Section 13).

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Handle in accordance with cGMP, good industrial hygiene and safety practice. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Conditions for safe storage, including any incompatibilities: Keep containers tightly closed in a well-ventilated place. Recommended storage temperature: 2-8°C. **Do NOT Freeze.** Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Limits – Control Parameters:**

Component	CAS Number	Value	Control Parameters	Basis
Sodium Tetraborate	1303-96-4	TWA	5 mg/m ³	USA. NIOSH
			10 mg/m ³	MAC (NL)
			10 mg/m ³	TLV (US)

Engineering controls: Showers, eyewash stations and ventilation systems - Handle in accordance with cGMP, good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

Personal Protective Equipment:

Eye/face protection: Snuggly fitting safety goggles or faceshield (8 inch minimum) – Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (U.S.) or EN 166 (E.U.)

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching the glove's outer surface) to avoid possible skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and cGMP. Wash hands with soap and copious amounts of water.

Body protection: Complete suit protecting against chemicals – The type of protective equipment must be chosen according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multipurpose combination (U.S.) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (U.S.) or CEN (E.U.).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Red Liquid at varying opacity depending upon gold concentration
Odor:	No Data Available
Odor Threshold:	No Data Available
pH:	No Data Available
Melting Point/Freezing Point:	No Data Available
Initial Boiling Point and Boiling Range:	No Data Available
Flash Point:	No Data Available
Evaporation Rate:	No Data Available
Flammability (solid, gas):	No Data Available (liquid)
Upper/Lower Flammability or Explosive Limits:	No Data Available
Vapor Pressure:	No Data Available
Vapor Density:	No Data Available
Relative Density:	No Data Available
Solubility:	Water Soluble
Partition Coefficient: n-octanol/water:	No Data Available
Auto-Ignition Temperature:	No Data Available
Decomposition Temperature:	No Data Available
Viscosity:	No Data Available
Explosive Properties:	No Data Available (Not Applicable)
Oxidizing Properties:	No Data Available

SECTION 10: STABILITY AND REACTIVITY

Reactivity: No Data Available

Chemical Stability: Stable under recommended storage conditions (refer to Section 7)

Possibility of Hazardous Reactions: No Data Available

Conditions to Avoid: No Data Available

Incompatible Materials: Zirconium, Strong Acids, Metallic Salts, Strong oxidizing agents, Amines, Mercaptans, Reducing agents

Hazardous Decomposition Products: Carbon oxides, Nitrogen oxides (NO_x), Sulfur oxides

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity: No Data Available

Inhalation: No Data Available

Skin corrosion/irritation: No Data Available

Serious eye damage/eye irritation: No Data Available

Respiratory or skin sensitization: No Data Available

Germ cell mutagenicity: No Data Available

Carcinogenicity

IARC: No component of this product which is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product which is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product which is present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product which is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: Boric Acid (CAS # 10043-35-3) has been identified in 1272/2008/EC as a category 2 Reproductive Toxin. This product contains Boric Acid well below the hazard concentration limit of 5.5%

Sodium Tetraborate (CAS # 1303-96-4) has been identified in 1272/2008/EC as a category 1B Reproductive Toxin. This product contains Sodium Tetraborate well below the hazard concentration limit of 8.5%

Teratogenicity: No Data Available

Specific target organ toxicity - single exposure: No Data Available

Specific target organ toxicity - repeated exposure: No Data Available

Aspiration hazard: No Data Available

Information on the likely routes of exposure: Oral, Dermal, and Inhalation

Additional Information: RTECS: Not Available

Conclusion/Summary: To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Toxic to aquatic life

Persistence and Degradability: No Data Available

Bioaccumulative Potential: No Data Available

Mobility in Soil: No Data Available

Other Adverse Effects: No Data Available – An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated Packaging: Dispose of as unused product (refer to above paragraph)

SECTION 14: TRANSPORT INFORMATION

U.S. DOT HAZARD CLASSIFICATION

Proper Shipping Name: Not Regulated

UN Number: Not Applicable

Hazard Class/Packing Group: Not Applicable

Labels Required: None

DOT Packaging Requirements: Not Applicable

Exceptions: Not Applicable

IATA/ICAO AIR TRANSPORTATION

Proper Shipping Name: Not Regulated

UN Number: Not Applicable

Hazard Class/Packing Group: Not Applicable

Labels Required: None

IATA Packaging Requirements: Not Applicable

IMDG: Not Regulated

Harmonized Tariff Code: 3002.10.02.90

SECTION 15: REGULATORY INFORMATION

REACH Number: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This material contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 371.

SARA 311/312 Hazards: Acute Health Hazard

California Proposition 65: This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990. This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: OTHER INFORMATION

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The information included in this Material Safety Data Sheet is believed to be accurate, complete and current but does not purport to be all inclusive and shall be used as a guide. BioAssay Works makes no representation or warranties with respect to the product described herein, including but not limited to any implied warranties or merchantability or fitness for a particular use. BioAssay Works assumes no liability or responsibility and authorizes no other person to assume any additional liability or responsibility as a result of the use of this product or the information contained in the Material Safety Data Sheet.

