

SECTION 1: IDENTIFICATION

Product Name: Naked Gold-in-a-Box™ Conjugation Kits

Catalog Number(s): All Kits Beginning: NGIB20-B###
 NGIB24-B###
 NGIB26-B###
 NGIB28-B###
 NGIB40-B###
 NGIB46-B###
 NGIB48-B###
 NGIB60-B###
 NGIB68-B###
 NGIB80-B###

Any Naked Gold-in-a-Box™ conjugation kit with a part number of the format NGIB##-B###

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

Refer to Section 3, Composition/Information on Ingredients, to determine hazards contained in the various components.

Colloidal Gold – Overexposure may cause contact dermatitis.

Sodium Chloride – GHS Classification: Skin Irritant (Category 2)
 Eye Irritant (Category 2)

1-Piperazineethanesulfonic acid, 4-(2-hydroxyethyl)- – GHS, not classified as a hazard.

4-(2-Hydroxyethyl)piperazine-1-ethanesulfonic acid sodium salt – GHS, not classified as a hazard.

Potassium hydrogen carbonate – GHS, not classified as a hazard.

Potassium carbonate – GHS Classification: Acute toxicity, Oral (Category 4)
 Skin irritation (Category 2)
 Eye irritation (Category 2A)
 Specific target organ toxicity - single exposure (Category 3),
 Respiratory system.

Sucrose – GHS, not classified as a hazard.

10% Methanol aqueous solution – GHS Classification: Acute toxicity, Oral (Category 3)
Acute toxicity, Inhalation (Category 3)
Acute toxicity, Dermal (Category 3)
Specific target organ toxicity – single exposure (Category 1)

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

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- Naked Gold®, Part Numbers NG##-B###. Colloidal gold particles in aqueous solution containing mM concentrations of Sodium chloride and Potassium carbonate
- Buffer A, Part Numbers BUFA-###. 1-Piperazineethanesulfonic acid, 4-(2-hydroxyethyl)- in aqueous solution
- Buffer B, Part Numbers BUFB-###. 4-(2-Hydroxyethyl)piperazine-1-ethanesulfonic acid sodium salt in aqueous solution
- Buffer C, Part Numbers BUFC-###. Potassium hydrogen carbonate in aqueous solution
- Buffer D, Part Numbers BUFD-###. Potassium carbonate in aqueous solution
- Gold Drying Buffer, Part Numbers GDB-###. Sucrose in a 10% Methanol aqueous solution
- BSA Blocking Solution, Part Numbers BLK-###. BSA aqueous solution with 0.1% ProClin® 950 preservative

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: 20-25°C, except BSA Blocking Solution, Part Number BLK-###, must be stored refrigerated, 2-8°C. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits: Contains no substances with occupational exposure limit values

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

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| Appearance: | Various – component dependent |
| Odor: | No Data Available |
| Odor Threshold: | No Data Available |
| pH: | Various – component dependent |
| Melting Point/Freezing Point: | No Data Available |
| Initial Boiling Point and Boiling Range: | Various – component dependent |
| Flash Point: | No Data Available |
| Evaporation Rate: | No Data Available |
| Flammability (solid, gas): | No Data Available (most components are non-flammable liquids) |
| Upper/Lower Flammability or Explosive Limits: | No Data Available (most components are non-flammable liquids) |
| Vapor Pressure: | No Data Available |
| Vapor Density: | No Data Available |
| Relative Density: | Various – component dependent |
| Solubility: | Various – component dependent |
| 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: 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

LD50 **Oral** - rat - female - 1,091 mg/kg

LD50 **Oral** - rat - male - 2,834 mg/kg

Inhalation: No Data Available

LD50 **Dermal** - rabbit - > 5,000 mg/kg

Skin corrosion/irritation:

Skin – rabbit Result: Causes severe burns.

Serious eye damage/eye irritation

Eyes – rabbit Result: Corrosive

Respiratory or skin sensitization

Guinea pig – May cause allergic skin reaction.

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

No Data Available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No Data Available

Aspiration hazard

No Data Available

Additional Information

RTECS: Not Available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Very 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. Very 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

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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