



MATERIAL SAFETY DATA SHEET

L-SDS-101

Revision Date: September 21, 2020

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

There is no data available on the toxicity, hazards, or precautions for the components of this mixture at the supplied concentrations. 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.

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

➤ **Naked Gold®, Part Numbers NG##-B###**

Classification:

OSHA Regulatory Status:

A component or components of this mixture are considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute Toxicity - Oral Category 4

Skin Corrosion/Irritation..... Category 1

Serious Eye Damage/Eye Irritation Category 1

Specific target organ toxicity (single exposure)..... Category 3

Appearance:.....Red/Burgundy Liquid

Physical State:.....Colloidal Mixture - Liquid

Odor:No information available

Pictogram:



Signal Word: **DANGER**

Hazard Statements:

May cause respiratory irritation. May cause drowsiness or dizziness

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

Precautionary Statements:

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P262 - Do not get in eyes, on skin, or on clothing

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P271 - Use only outdoors or in a well-ventilated area

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
Rinse skin with water/shower

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

P312 - Call a POISON CENTER or doctor if you feel unwell

P330 - Rinse mouth

P363 - Wash contaminated clothing before reuse

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P405 - Store locked up

P501 - Dispose of contents/ container to an approved waste disposal plant

Hazards not otherwise classified (HNOC): Not applicable

- **Part Number BUFA-### Buffer Solution A:** GHS, not classified as a hazard.
- **Part Number BUFB-### Buffer Solution B:** GHS, not classified as a hazard.
- **Part Number BUFC-### Buffer Solution C:** GHS, not classified as a hazard.
- **Part Number BUFD-### Buffer Solution D:** Buffer Solution D is an aqueous solution containing approximately 93% water and less than 7% dissolved potassium carbonate. There is no data available on the toxicity, hazards, or precautions of potassium carbonate at the supplied, dissolved concentration. The following information pertains to potassium carbonate in its undiluted, anhydrous state. The dilution of potassium carbonate as supplied with this product mitigates its toxicity and any hazards it may present; however, the extent of mitigation is unknown.

Classification:

OSHA Regulatory Status: This chemical is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHS Classification: Acute toxicity, Oral (Category 4)
Skin corrosion/irritation (Category 1)
Serious eye damage/eye irritation (Category 1)
Specific target organ toxicity - single exposure (Category 3), Respiratory system

Signal Word: DANGER

Pictograms:



Hazard Statements: H335: May cause respiratory irritation
H336: May cause drowsiness or dizziness
H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage

Precautionary Statements: P264 Wash face, hands, and any exposed skin thoroughly after handling
P260 Do not breathe dust/fume/gas/mist/vapors/spray
P270 Do not eat, drink, or smoke when using this product
P271 Use only outdoors or in a well-ventilated area
P280 Wear protective gloves/protective clothing/eye protection/face protection
P310 Immediately call a POISON CENTER or doctor/physician
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P303+P361+P353 IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
P363 Wash contaminated clothing before reuse
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 Call a POISON CENTER or doctor/physician if you feel unwell
P301+P312 IF SWALLOWED: call a POISON CENTER/doctor if you feel unwell.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P405 Store locked up
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC): none

- **Part Number BLK-###** **BSA Blocking Stabilizer Solution:** The BSA Blocking Stabilizer Solution is an aqueous solution containing approximately 92% water and less than 8% dissolved components. There is no data available on the toxicity, hazards, or precautions at the supplied concentrations of the dissolved components. The following information pertains to the components in their undiluted states. The dilution of the components as supplied with this product mitigates their toxicity and any hazards they may present; however, the extent of mitigation is unknown.

Classification:

OSHA Regulatory Status: This chemical is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHS Classification: Acute toxicity, Oral (Category 4)
Skin corrosion (Category 1B)
Serious eye damage (Category 1)
Skin sensitization (Category 1)
Specific target organ toxicity - single exposure (Category 3), Respiratory system
Acute aquatic toxicity (Category 1)

Signal Word: DANGER

Pictograms:



Hazard Statements: H314 Causes severe skin burns and eye damage
H317 May cause an allergic skin reaction
H335 May cause respiratory irritation
H400 Very toxic to aquatic life

Precautionary Statements: P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
P264 Wash skin thoroughly after handling
P271 Use only outdoors or in a well-ventilated area
P272 Contaminated work clothing should not be allowed out of the workplace
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention
P363 Wash contaminated clothing before reuse
P391 Collect spillage
P403 + P233 Store in a well-ventilated place. Keep container tightly closed
P405 Store locked up
P501 Dispose of contents/ container to an approved waste disposal plant

Hazards not otherwise classified (HNOC): none

- **Part Number CDB-###** **Latex Conjugate Drying Buffer:** The Latex Conjugate Drying Buffer is an aqueous solution containing approximately 50% sucrose and 10% methanol. There is no data available on the toxicity, hazards, or precautions at the supplied concentrations of the dissolved components. The following information pertains to the components in their undiluted states. The dilution of the components as supplied with this product mitigates their toxicity and any hazards they may present; however, the extent of mitigation is unknown.

Classification:

OSHA Regulatory Status: This chemical is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHS Classification: Flammable liquids (Category 2)
Acute toxicity, Oral (Category 3)
Acute toxicity, Inhalation (Category 3)
Acute toxicity, Dermal (Category 3)
H311 Specific target organ toxicity - single exposure (Category 1)

Signal Word: DANGER

Pictograms:



Hazard Statements: H225 Highly flammable liquid and vapor
H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled
H370 Causes damage to organs

Precautionary Statements: P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking

P233 Keep container tightly closed
P240 Ground/bond container and receiving equipment
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment
P242 Use only non-sparking tools
P243 Take precautionary measures against static discharge
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray
P264 Wash skin thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P271 Use only outdoors or in a well-ventilated area
P280 Wear protective gloves/ eye protection/ face protection
P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor
P307 + P311 IF exposed: Call a POISON CENTER or doctor/ physician
P362 Take off contaminated clothing and wash before reuse
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
P403 + P233 Store in a well-ventilated place. Keep container tightly closed
P403 + P235 Store in a well-ventilated place. Keep cool
P405 Store locked up
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC): none

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
- Conjugate (Gold) Drying Buffer, Part Numbers CDB-###. 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

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

Prepared by: BioAssay Works®, L.L.C.
10075 Tyler Place
Suite 18
Ijamsville, MD 21754
301-874-8888
Revision -04
September 21, 2020

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.

