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Web: [www.GBiosciences.com](http://www.GBiosciences.com), Email: [technical@GBiosciences.com](mailto:technical@GBiosciences.com) [Rev 7.19.11/IA-JK]  
**Emergency Contact:** Chemtrec 800-424-9300

**Product:** HOOK™-NHS-SS-Biotin Kit

**Catalog #:** BS-04

HOOK™-NHS-SS-Biotin	25mg
Optimizer Buffer™ I [5X]	2 x 25ml
Spin-OUT™ GT-600, 5ml	10 columns
OneQuant™HABA/Avidin	24 vials
BiotinQuant™ Assay Buffer	25ml
Biotin Standard	1ml

## **Material Safety Data Sheet**

### **Section 1: Chemical Identification**

**Name:** HOOK™ NHS-SS-Biotin

**Catalog #:** a component of product Cat #BS-04 indicated above

### **Section 2: Composition/Information on Ingredients**

Derivative of Biotin; NHS-SS-Biotin

### **Section 3: Hazards Identification**

Label precautionary statements. Irritating to eyes, respiratory system, and, skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

### **Section 4: First-Aid Measures**

**After eye contact:** Immediately flush eyes with copious amounts of water for at least 15 minutes.

**After skin contact:** Immediately wash skin with soap and copious amounts of water.

**After Inhalation:** Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

**After swallowing:** Wash out mouth with water provided person is conscious. Call a physician. Wash contaminated clothing before reuse.

### **Section 5: Fire Fighting Measures**

**Extinguishing Agents:** Water spray, Carbon dioxide, dry chemical powder or appropriate foam.

**Special fire fighting procedures:** None Needed

**Unusual fire and explosions hazards:** None known

### **Section 6: Accidental Release Measures**

**Human Safety Precautions:** Wear chemical safety goggles, rubber boots and heavy rubber gloves.

**Cleaning/Collecting Measures:** Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

#### **Section 7: Handling and Storage**

Refer to section 8.

#### **Section 8: Exposure Controls/Personal Protection**

**Personal protective equipment:** Chemical safety goggles, compatible chemical-respirator, NIOSH/MSHA-approved respirator, and safety shower and eye bath.

**General Protective and Hygiene Measures:** Mechanical exhaust required. Avoid contact with eyes, skin and clothing. Wash hands thoroughly after handling. Irritant, Keep tightly closed. Store it in a cool dry place.

#### **Section 9: Physical and Chemical Properties**

**Form:** Solid powder

**Color:** white

**Odor:** None

#### **Section 10: Stability and Reactivity**

**Thermal Decomposition/Conditions to be avoided:** No decomposition if used according to specifications. Moisture sensitive.

**Dangerous Reactions:** No dangerous reactions known.

**Dangerous Products of Decomposition:** No known dangerous decomposition products.

#### **Section 11: Toxicological Information**

**Primary Irritant Effects:** Harmful if inhaled or ingested.

**On the skin:** Material is irritating to skin and mucous membranes.

**On the eye:** Causes eye irritation.

**Sensitization:** No sensitizing effects known.

#### **Section 12: Ecological Information**

Data not yet available.

#### **Section 13: Disposal Considerations**

**Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to hazardous waste disposers. Observe all federal, state and local environmental regulations.

#### **Section 14: Transport Information**

Not dangerous goods and Safe for all transport.

## **Section 15: Regulatory information**

Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

## **Section 16: Other Information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Genotech shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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# **Material Safety Data Sheet**

## **Section 1: Chemical Identification**

**Name:** Optimizer Buffer I

**Catalog #:** a component of product Cat# BS-04 indicated above.

## **Section 2: Composition/Information on Ingredients**

Contains: combination of proprietary salts, believed to be non-hazardous

## **Section 3: Hazards Identification**

Label precautionary statements. Irritating to eyes, respiratory system, and, skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

## **Section 4: First-Aid Measures**

**After eye contact:** Immediately flush eyes with copious amounts of water for at least 15 minutes.

**After skin contact:** Immediately wash skin with soap and copious amounts of water.

**After Inhalation:** Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

**After swallowing:** Wash out mouth with water provided person is conscious. Call a physician. Wash contaminated clothing before reuse.

## **Section 5: Fire Fighting Measures**

**Extinguishing Agents:** Water spray, Carbon dioxide, dry chemical powder or appropriate foam.

**Special fire fighting procedures:** None Needed

**Unusual fire and explosions hazards:** None known

## **Section 6: Accidental Release Measures**

**Human Safety Precautions:** Wear chemical safety goggles, rubber boots and heavy rubber gloves.

**Cleaning/Collecting Measures:** Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

#### **Section 7: Handling and Storage**

Refer to section 8.

#### **Section 8: Exposure Controls/Personal Protection**

**Personal protective equipment:** Chemical safety goggles, compatible chemical-respirator, NIOSH/MSHA-approved respirator, and safety shower and eye bath.

**General Protective and Hygiene Measures:** Mechanical exhaust required. Avoid contact with eyes, skin and clothing. Wash hands thoroughly after handling. Irritant. Keep tightly closed. Store in a cool dry place.

#### **Section 9: Physical and Chemical Properties**

**Form:** Liquid

**Color:** Colorless

**Odor:** Not Available

#### **Section 10: Stability and Reactivity**

**Thermal Decomposition/Conditions to be avoided:** No decomposition if used according to specifications.

**Dangerous Reactions:** No dangerous reactions known.

**Dangerous Products of Decomposition:** No known dangerous decomposition products.

#### **Section 11: Toxicological Information**

**Primary Irritant Effects:** Harmful if inhaled or ingested.

**On the skin:** Material is irritating to skin and mucous membranes.

**On the eye:** Causes eye irritation.

**Sensitization:** No sensitizing effects known.

#### **Section 12: Ecological Information**

Data not yet available

#### **Section 13: Disposal Considerations**

**Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to hazardous waste disposers. Observe all federal, state and local environmental regulations.

#### **Section 14: Transport Information**

Not dangerous goods and Safe for all transport.

**Section 15: Regulatory information** Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

**Section 16: Other Information**

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**Material Safety Data Sheet**

**Section 1: Chemical Identification**

**Name:** SpinOUT GT-600

**Catalog #:** a component of product Cat# BS-04 indicated above.

**Section 2: Composition/Information on Ingredients**

Addition of resin suspension, equivalent to Sephadex G25

**Section 3: Hazards Identification**

Label precautionary statements. Irritating to eyes, respiratory system, and, skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

**Section 4: First-Aid Measures**

**After eye contact:** Immediately flush eyes with copious amounts of water for at least 15 minutes.

**After skin contact:** Immediately wash skin with soap and copious amounts of water.

**After Inhalation:** None needed for non-volatile items. For items emitting vapor and dust particles: Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

**After swallowing:** Wash out mouth with water provided person is conscious. Call a physician. Wash contaminated clothing before reuse.

**Section 5: Fire Fighting Measures**

**Extinguishing Agents:** Water spray, Carbon dioxide, dry chemical powder or appropriate foam.

**Special fire fighting procedures:** None needed

**Unusual fire and explosions hazards:** Not known

**Section 6: Accidental Release Measures**

**Human Safety Precautions:** Chemical safety goggles, rubber boots and rubber gloves.

**Cleaning/Collecting Measures:** Sweep up, place in a bag and hold for waste disposal.

## **Section 7: Handling and Storage**

Refer to section 8.

## **Section 8: Exposure Controls/Personal Protection**

**Personal protective equipment:** Chemical safety goggles, compatible chemical-respirator, NIOSH/MSHA-approved respirator, and safety shower and eye bath.

**General Protective and Hygiene Measures:** Mechanical exhaust required. None needed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Irritant. Keep tightly closed. Store in a cool dry place.

## **Section 9: Physical and Chemical Properties**

**Form:** Resin suspension

**Color:** White

**Odor:** None

## **Section 10: Stability and Reactivity**

**Thermal Decomposition/Conditions to be Avoided:** No decomposition if used according to specifications.

**Dangerous Reactions:** No dangerous reactions known.

**Dangerous Products of Decomposition:** No known dangerous decomposition products.

## **Section 11: Toxicological Information**

**Primary Irritant Effects:** Harmful if inhaled or ingested.

**On the skin:** Material is irritating to skin and mucous membranes.

**On the eye:** Causes eye irritation.

**Sensitization:** No sensitizing effects known.

## **Section 12: Ecological Information**

Data not yet available.

## **Section 13: Disposal Considerations**

**Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to hazardous waste disposers. Observe all federal, state and local environmental regulations.

## **Section 14: Transport Information**

Not dangerous goods and Safe for all transport.

## **Section 15: Regulatory information**

Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

## **Section 16: Other Information**

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## **Material Safety Data Sheet**

### **Section 1: Chemical Identification**

**Name:** OneQuant™HABA/Avidin

**Catalog #:** a component of product Cat #BS-04 indicated above

### **Section 2: Composition/Information on Ingredients**

Contains: Avidin [CAS#1405-69-2] and HABA [CAS#1634-82-8]

### **Section 3: Hazards Identification**

Label precautionary statements. Irritating to eyes, respiratory system, and, skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

### **Section 4: First-Aid Measures**

**After eye contact:** Immediately flush eyes with copious amounts of water for at least 15 minutes.

**After skin contact:** Immediately wash skin with soap and copious amounts of water.

**After Inhalation:** Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

**After swallowing:** Wash out mouth with water provided person is conscious. Call a physician. Wash contaminated clothing before reuse.

### **Section 5: Fire Fighting Measures**

**Extinguishing Agents:** Water spray, Carbon dioxide, dry chemical powder or appropriate foam.

**Special fire fighting procedures:** None Needed

**Unusual fire and explosions hazards:** None known

### **Section 6: Accidental Release Measures**

**Human Safety Precautions:** Wear chemical safety goggles, rubber boots and heavy rubber gloves.

**Cleaning/Collecting Measures:** Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

### **Section 7: Handling and Storage**

Refer to section 8.

### **Section 8: Exposure Controls/Personal Protection**

**Personal protective equipment:** Chemical safety goggles, compatible chemical-respirator, NIOSH/MSHA-approved respirator, and safety shower and eye bath.

**General Protective and Hygiene Measures:** Mechanical exhaust required. Avoid contact with eyes, skin and clothing. Wash hands thoroughly after handling. Irritant. Keep tightly closed. Store in a cool dry place.

### **Section 9: Physical and Chemical Properties**

**Form:** Powder    **Color:** Red Orange    **Odor:** None

### **Section 10: Stability and Reactivity**

**Thermal Decomposition/Conditions to be avoided:** No decomposition if used according to specifications.

**Dangerous Reactions:** No dangerous reactions known.

**Dangerous Products of Decomposition:** No known dangerous decomposition products.

### **Section 11: Toxicological Information**

**Primary Irritant Effects:** Harmful if inhaled or ingested.

**On the skin:** Material is irritating to skin and mucous membranes.

**On the eye:** Causes eye irritation.

**Sensitization:** No sensitizing effects known.

**Section 12: Ecological Information** Data not yet available.

### **Section 13: Disposal Considerations**

**Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to hazardous waste disposers. Observe all federal, state and local environmental regulations.

**Section 14: Transport Information** Not dangerous goods and Safe for all transport.

### **Section 15: Regulatory information**

Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

### **Section 16: Other Information**

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# Material Safety Data Sheet

## **Section 1: Chemical Identification**

**Name:** BiotinQuant Assay Buffer

**Catalog #:** A component of product Cat# BS-04 indicated above.

## **Section 2: Composition/Information on Ingredients**

Contains: combination of proprietary salts believed to be non-hazardous

## **Section 3: Hazards Identification**

Label precautionary statements. Irritating to eyes, respiratory system, and, skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

## **Section 4: First-Aid Measures**

**After eye contact:** Immediately flush eyes with copious amounts of water for at least 15 minutes.

**After skin contact:** Immediately wash skin with soap and copious amounts of water.

**After Inhalation:** Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

**After swallowing:** Wash out mouth with water provided person is conscious. Call a physician. Wash contaminated clothing before reuse.

## **Section 5: Fire Fighting Measures**

**Extinguishing Agents:** Water spray, Carbon dioxide, dry chemical powder or appropriate foam.

**Special fire fighting procedures:** None Needed

**Unusual fire and explosions hazards:** None known

## **Section 6: Accidental Release Measures**

**Human Safety Precautions:** Wear chemical safety goggles, rubber boots and heavy rubber gloves.

**Cleaning/Collecting Measures:** Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

**Section 7: Handling and Storage** Refer to section 8.

## **Section 8: Exposure Controls/Personal Protection**

**Personal protective equipment:** Chemical safety goggles, compatible chemical-respirator, NIOSH/MSHA-approved respirator, and safety shower and eye bath.

### **General Protective and Hygiene Measures:**

Mechanical exhaust required. Avoid contact with eyes, skin and clothing. Wash hands thoroughly after handling. Irritant. Keep tightly closed. Store in a cool dry place.

## **Section 9: Physical and Chemical Properties**

**Form:** Liquid

**Color:** Colorless

**Odor:** Not Available

## **Section 10: Stability and Reactivity**

**Thermal Decomposition/Conditions to be avoided:** No decomposition if used according to specifications.

**Dangerous Reactions:** No dangerous reactions known.

**Dangerous Products of Decomposition:** No known dangerous decomposition products.

## **Section 11: Toxicological Information**

**Primary Irritant Effects:** Harmful if inhaled or ingested.

**On the skin:** Material is irritating to skin and mucous membranes.

**On the eye:** Causes eye irritation.

**Sensitization:** No sensitizing effects known.

**Section 12: Ecological Information** Data not yet available

## **Section 13: Disposal Considerations**

**Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to hazardous waste disposers. Observe all federal, state and local environmental regulations.

**Section 14: Transport Information** Not dangerous goods. Safe for all transport.

**Section 15: Regulatory information** Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

**Section 16: Other Information** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Genotech shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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# **Material Safety Data Sheet**

## **Section 1: Chemical Identification**

**Name:** Biotin Standard

**Catalog #:** a component of product Cat #BS-04 indicated above

## **Section 2: Composition/Information on Ingredients**

Contains: Biotin [CAS#58-85-5] with non-hazardous combination of common salts

## **Section 3: Hazards Identification**

Label precautionary statements. Irritating to eyes, respiratory system, and, skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

## **Section 4: First-Aid Measures**

**After eye contact:** Immediately flush eyes with copious amounts of water for at least 15 minutes.

**After skin contact:** Immediately wash skin with soap and copious amounts of water.

**After Inhalation:** Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

**After swallowing:** Wash out mouth with water provided person is conscious. Call a physician. Wash contaminated clothing before reuse.

## **Section 5: Fire Fighting Measures**

**Extinguishing Agents:** Water spray, Carbon dioxide, dry chemical powder or appropriate foam.

**Special fire fighting procedures:** None Needed

**Unusual fire and explosions hazards:** None known

## **Section 6: Accidental Release Measures**

**Human Safety Precautions:** Wear chemical safety goggles, rubber boots and heavy rubber gloves.

**Cleaning/Collecting Measures:** Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

## **Section 7: Handling and Storage**

Refer to section 8.

## **Section 8: Exposure Controls/Personal Protection**

**Personal protective equipment:** Chemical safety goggles, compatible chemical-respirator, NIOSH/MSHA-approved respirator, and safety shower and eye bath.

**General Protective and Hygiene Measures:** Mechanical exhaust required. Avoid contact with eyes, skin and clothing. Wash hands thoroughly after handling. Irritant, Keep tightly closed. Store in a cool dry place.

## **Section 9: Physical and Chemical Properties**

**Form:** liquid

**Color:** None

**Odor:** None

## **Section 10: Stability and Reactivity**

**Thermal Decomposition/Conditions to be avoided:** No decomposition if used according to specifications.

**Dangerous Reactions:** No dangerous reactions known.

**Dangerous Products of Decomposition:** No known dangerous decomposition products.

## **Section 11: Toxicological Information**

**Primary Irritant Effects:** Harmful if inhaled or ingested.

**On the skin:** Material is irritating to skin and mucous membranes.

**On the eye:** Causes eye irritation.

**Sensitization:** No sensitizing effects known.

## **Section 12: Ecological Information**

Data not yet available.

## **Section 13: Disposal Considerations**

### **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to hazardous waste disposers. Observe all federal, state and local environmental regulations.

## **Section 14: Transport Information**

Not dangerous goods. Safe for all transport.

## **Section 15: Regulatory information**

Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

## **Section 16: Other Information**

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