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Emergency Contact: Chemtrec 800-424-9300

Product: HOOK-Biotin-PDA

Catalog #: BS-13

| | |
|--|------------|
| HOOK-Biotin-PDA | 25mg |
| *Optimizer Buffer™ II [5X] for Iodoacetyl Reactive Groups | 2 x 25ml |
| *Optimizer Buffer™ III [5X] for Maleimide & Pyridyldithiol Reactive Groups | 2 x 25ml |
| Spin-OUT™ GT-600, 5ml | 10 columns |
| OneQuant™HABA/Avidin | 24 vials |
| BiotinQuant™ Assay Buffer | 25ml |
| Biotin Standard | 1ml |

*Only one Optimizer Buffer is supplied depending on the Hook Biotin Reagent Supplied.

Material Safety Data Sheet

Section 1: Chemical Identification

Name: HOOK-Biotin-PDA

Catalog #: a component of product Cat #BS-13 indicated above

Section 2: Composition/Information on Ingredients

Derivative of Biotin; Biotin-PDA

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 II

Catalog #: a component of product Cat #BS-13 indicated above

Section 2: Composition/Information on Ingredients

Contains: DI water >95%, Sodium chloride; NaCl [CAS# 7647-14-5] <5%, Tris Base [CAS# 77-86-1] <5% and 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: 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: Optimizer Buffer III

Catalog #: a component of product Cat #BS-13 indicated above

Section 2: Composition/Information on Ingredients

Contains: DI water >90%, Sodium chloride; NaCl [CAS# 7647-14-5] <5%, Tris Base [CAS# 77-86-1] <1% and 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: Colorless

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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Material Safety Data Sheet**Section 1: Chemical Identification**

Name: SpinOUT GT-600

Catalog #: a component of product Cat# BS-13 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-13 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-13 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

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Material Safety Data Sheet

Section 1: Chemical Identification

Name: Biotin Standard

Catalog #: a component of product Cat #BS-13 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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