

Conforms to 93/112/EC and ISO 11014-1

Responsible Name MSDS Administrator

? Section 1. Chemical Product and Company Identification

Product Name EZ-Link NHS-Chromogenic Biotin

Product no. 0021325

| | | | | |
|-----------------|--|---|---------------------|--|
| Supplier | <i>In USA:</i> Pierce P.O. Box 117 Rockford, IL 61105 USA 815.968.0747 or 1.800.874.3723 | <i>In Europe:</i> Perbio Science Industriezone III Industrielaan 27 9320 Erembodegem-Aalst Belgium Tel:+32 53 83 44 04 Fax:+32 53 83 76 38 | Manufacturer | Pierce Biotechnology P.O. Box 117 Rockford, IL 61105 USA 815.968.0747 or 1.800.874.3723 |
|-----------------|--|---|---------------------|--|

In case of emergency CHEMTREC:
800.424.9300
OUTSIDE US:
202.483.7616

Print date 1/25/2006
Validation date 12/22/2005
MSDS# 7419

Use of the substance/preparation Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

Section 2. Composition, Information on Ingredients

Substance/preparation : Substance

No hazardous ingredient according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directives 1999/45/EC-2001/59/EC (EU)

Section 3. Hazards identification

United States Review the most current and approved institutional guideline, protocol, standard operating procedure(s) and MSDS(s) for the proper handling of institutional materials/equipment associated with the use of this product.

Emergency overview No specific hazard.

Routes of entry Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eyes No known significant effects or critical hazards.

Skin No known significant effects or critical hazards.

Inhalation No known significant effects or critical hazards.

Ingestion No known significant effects or critical hazards.

Potential chronic health effects

Carcinogenic effects **CARCINOGENIC EFFECTS:** Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

Medical conditions aggravated by overexposure Repeated or prolonged exposure is not known to aggravate medical condition.

Over-exposure signs/symptoms Not available.

Europe

Classification Not classified.

Physical/chemical hazards Not applicable.

Human health hazards Not applicable.

Environmental hazards Not applicable.

See toxicological Information (section 11)

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+ Section 4. First aid measures

Effects and symptoms

- Inhalation* Not available.
Ingestion Not available.
Skin contact Not available.
Eye contact Not available.
Aggravating conditions Repeated or prolonged exposure is not known to aggravate medical condition.

First-Aid Measures

- Inhalation* If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
Skin contact In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Eye contact In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Notes to physician Not available.
Protection of first-aiders Not available.

🔥 Section 5. Fire fighting measures

- Flammability of the product* May be combustible at high temperature.
Flash Points Not available.
Fire hazards in presence of various substances Not available.
Fire fighting media and instructions Use an extinguishing agent suitable for surrounding fires.
Protective clothing (fire) Be sure to use an approved/certified respirator or equivalent.
Hazardous thermal decomposition products These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...), sulfur oxides (SO₂, SO₃...).

Section 6. Accidental release measures

- Personal precautions* Safety glasses. Lab coat.
Environmental precautions and clean-up methods Use a shovel to put the material into a convenient waste disposal container.
Small spill and leak Use appropriate tools to put the spilled solid in a convenient waste disposal container.

◇ Section 7. Handling and storage

- Handling* Wash thoroughly after handling.
Storage Keep container tightly closed. Keep container in a cool, well-ventilated area.
Intended Use Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.
Packaging materials
Suitable / Not suitable Use original container.

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Section 8. Exposure Controls, Personal Protection

Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Exposure Limit Values

| <u>Ingredient Name</u> | <u>Occupational Exposure Limits</u> |
|------------------------|-------------------------------------|
| United States | |

Personal Protection

Eyes Safety glasses.

Body Lab coat.

Protective Clothing
(Pictograms)



Section 9. Physical and chemical properties

Physical State and Appearance Solid. (Powdered solid.)

Color White to yellowish.

Odor Not available.

Molecular Weight 810.92 g/mole

Taste Not available.

Molecular Formula C38 H50 N8 O10 S

Dispersion Properties Not available.

Solubility Not available.



Section 10. Stability and reactivity

Stability and Reactivity The product is stable.

Conditions to avoid Not available.

Materials to avoid Not available.

Hazardous Decomposition Products Not available.



Section 11. Toxicological information

Toxicity to Animals EZ-Link NHS-Chromogenic Biotin
LD50: Not available.
LC50: Not available.

Chronic Effects on Humans Not available.

Other Toxic Effects on Humans No specific information is available in our database regarding the other toxic effects of this material for humans.

Special Remarks on Toxicity to Animals Not available.

Special Remarks on Chronic Effects on Humans Not available.

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Special Remarks on Other Toxic Effects on Humans Not available.

Carcinogenicity No known significant effects or critical hazards.

Mutagenicity No known significant effects or critical hazards.

Reproductive toxicity No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation No known significant effects or critical hazards.

Ingestion No known significant effects or critical hazards.

Skin No known significant effects or critical hazards.



Section 12. Ecological information

Mobility Not available.

Persistence/degradability Not available.

Bioaccumulative potential Not available.

Ecotoxicity Not available.

Germany water class VCI WGK: No products were found.

Ecotoxicity data

Ingredient name

Species

Period

Other ecological information

Persistence/degradability

Ingredient name

BOD₅

COD

Ingredient name

Aquatic half-life

Photolysis

Bioaccumulative potential

Ingredient name

LogP_{ow}

BCF

Mobility : Not available.

Other adverse effects : No known significant effects or critical hazards.



Section 13. Disposal considerations

Waste Stream Not available.

Methods of disposal The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

European waste catalogue (EWC) Not available.

Hazardous waste To present knowledge of the supplier, this product is not regarded as hazardous waste as defined by EU Directive 91/689/EC.

Denmark – Carcinogenic waste Not available.

Denmark - Waste card number Not available.

Denmark - Waste group Not available.

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Sweden - *thermoset plastic waste* Not available.

Sweden - *Waste group* Not available.

Austria - *Waste catalogue* Not available.

Norway - *Waste number* Not available.

Norway - *Hazardous waste* To present knowledge of the supplier, this product is not regarded as hazardous waste as defined by SFT's Directive on special waste.

Switzerland - *Waste code* Not available.

Section 14. Transport information

Contact the supplier for all information regarding the proper transportation method for this material.

Section 15. Regulatory information

Label Requirements (Europe)

This product is not classified according to the EU regulations.

HCS Classification

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U.S. Federal Regulations TSCA: No products were found.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: No products were found.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 accidental release prevention: No products were found.

Clean air act (CAA) 112 regulated flammable substances: No products were found.

Clean air act (CAA) 112 regulated toxic substances: No products were found.

State regulations No products were found.

WHMIS (Canada) Not controlled under WHMIS (Canada).

No products were found.

International Regulations

EINECS Not available.

DSCL (EEC) This product is not classified according to the EU regulations.

International Lists No products were found.

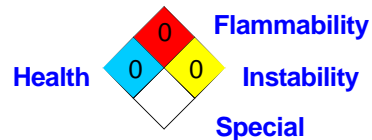
State Regulations No products were found.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | |
|---------------------|---|
| Health | 1 |
| Fire hazard | 0 |
| Reactivity | 0 |
| Personal protection | C |

National Fire Protection Association (U.S.A.)



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References Not available.

History of Document Changes Any information changes since last document version are marked with a triangle symbol. 

Intended Use Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

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Verified by MSDS Administrator.

Date of Previous Issue No Previous
Validation

Printed 1/25/2006.

Version

0.01

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.