

SAFETY DATA SHEET .beta.-HB Fluorometric Cofactors

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Revision: 09/17/2019 Supersedes Revision: 06/05/2013

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 2015/830 and US OSHA HCS 2015

Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Code: 700741

Product Name: .beta.-HB Fluorometric Cofactors

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Relevant identified uses: For research use only, not for human or veterinary use.

1.3 Details of the Supplier of the Safety Data Sheet:

Company Name: Cayman Chemical Company

1180 E. Ellsworth Rd. Ann Arbor, MI 48108

Web site address: www.caymanchem.com

Information: Cayman Chemical Company +1 (734)971-3335

1.4 Emergency telephone number:

Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300

CHEMTREC Outside USA and Canada: +1 (703)527-3887

Section 2. Hazards Identification

2.1 Classification of the Substance or Mixture:

Acute Toxicity: Oral, Category 4

2.2 Label Elements:



GHS Signal Word: Warning

GHS Hazard Phrases: H302: Harmful if swallowed. GHS Precaution Phrases:

P264: Wash {hands} thoroughly after handling.

GHS Response Phrases:

P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330: Rinse mouth.

GHS Storage and Disposal Phrases:

Please refer to Section 7 for Storage and Section 13 for Disposal information.

2.3 Adverse Human Health Harmful if swallowed.

Effects and Symptoms: Material may be irritating to the mucous membranes and upper respiratory tract.

May be harmful by inhalation or skin absorption. May cause eye, skin, or respiratory system irritation.

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

Section 3. Composition/Information on Ingredients

| CAS#/ RTECS# | Hazardous Components (Chemical Name)/ REACH Registration No. | Concentration | EC No./ EC Index No. | GHS Classification |
|-----------------|--|---------------|-------------------------|-----------------------|
| NA NA | (Trade Secret)NA | 100.0 % | NA NA | Acute Tox.(O) 4: H302 |

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Section 4. First Aid Measures

4.1 Description of First Aid

Measures:

In Case of Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel.

Get immediate medical attention.

In Case of Skin Contact: Immediately wash skin with soap and plenty of water for at least 20 minutes. Remove contaminated

clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

In Case of Eye Contact: Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes. Have eyes examined

and tested by medical personnel.

In Case of Ingestion: Wash out mouth with water provided person is conscious. Never give anything by mouth to an

unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by

medical personnel.

Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

Media: Use water spray to cool fire-exposed containers.

Unsuitable Extinguishing A solid water stream may be inefficient.

Media:

5.2 Flammable Properties and No data available.

Hazards:

No data available.

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

5.3 Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or

equivalent), and full protective gear to prevent contact with skin and eyes.

Section 6. Accidental Release Measures

6.1 Protective Precautions, Avoid raising and breathing dust, and provide adequate ventilation.

Protective Equipment and As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,

Emergency Procedures: and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

6.2 Environmental Take steps to avoid release into the environment, if safe to do so.

Precautions:

6.3 Methods and Material For Contain spill and collect, as appropriate.

Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations.

Up:

Section 7. Handling and Storage

7.1 Precautions To Be Taken Avoid breathing dust/fume/gas/mist/vapours/spray.

in Handling: Avoid prolonged or repeated exposure.

7.2 Precautions To Be Taken Keep container tightly closed.

in Storing: Store in accordance with information listed on the product insert.

Section 8. Exposure Controls/Personal Protection

8.1 Exposure Parameters:



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8.2.2 Personal protection equipment:

Eye Protection: Safety glasses

Protective Gloves: Compatible chemical-resistant gloves

Other Protective Clothing: Lab coat

Respiratory Equipment NIOSH approved respirator, as conditions warrant.

(Specify Type):

Appearance and Odor:

Work/Hygienic/Maintenan Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower. ce Practices:

Wash thoroughly after handling.

No data available.

Section 9. Physical and Chemical Properties

| | | <u> </u> | | |
|---|----------------------|-------------------|----------------|--|
| 9.1 Information on Basic Physical and Chemical Properties | | | | |
| | Physical States: | [] Gas | iquid [X]Solid | |
| | Appearance and Odor: | A lyophilized pow | /der | |

No data. pH: No data. **Melting Point:** No data. **Boiling Point:** Flash Pt: No data. **Evaporation Rate:** No data.

No data available. Flammability (solid, gas):

LEL: No data. UEL: No data. **Explosive Limits:**

Vapor Pressure (vs. Air or mm No data.

Hg):

Vapor Density (vs. Air = 1): No data. Specific Gravity (Water = 1): No data. No data. Solubility in Water: **Octanol/Water Partition** No data.

Coefficient:

Autoignition Pt: No data. No data. **Decomposition Temperature:** Viscosity: No data.

9.2 Other Information

> **Percent Volatile:** No data.

Section 10. Stability and Reactivity

No data available. 10.1 Reactivity:

10.2 Stability: Unstable [] Stable [X]

10.3 Stable if stored in accordance with information listed on the product insert. Stability Note(s):

Polymerization: Will occur [] Will not occur [X]

10.4 **Conditions To Avoid:** No data available. 10.5 Incompatibility - Materials oxidizing agents

To Avoid:

10.6 Hazardous carbon dioxide

carbon monoxide





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Decomposition or

nitrogen oxides

Byproducts: phosphorous oxides

sodium oxides

Section 11. Toxicological Information

11.1 Information on The toxicological effects of this product have not been thoroughly studied.

Toxicological Effects:

| CAS# | Hazardous Components (Chemical Name) | NTP | IARC | ACGIH | OSHA |
|------|--------------------------------------|------|------|-------|------|
| NA | (Trade Secret) | n.a. | n.a. | n.a. | n.a. |

Section 12. Ecological Information

12.1 Toxicity: Avoid release into the environment.

Runoff from fire control or dilution water may cause pollution.

12.2 Persistence and No data available.

Degradability:

12.3 Bioaccumulative No data available.

Potential:

12.4 Mobility in Soil: No data available.

12.5 Results of PBT and vPvB No data available.

assessment:

12.6 Other adverse effects: No data available.

Section 13. Disposal Considerations

13.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations.

Section 14. Transport Information

14.1 LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Not dangerous goods.

DOT Hazard Class: UN/NA Number:

14.1 LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Not dangerous goods.

UN Number: Hazard Class:

14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Not dangerous goods.

Additional Transport Transport in accordance with local, state, and federal regulations.

Information:

Section 15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

| CAS# | Hazardous Components (Chemical Name) | S. 302 (EHS) | S. 304 RQ | S. 313 (TRI) |
|------|--------------------------------------|--------------------------------|------------------|--------------|
| NA | (Trade Secret) | No | No | No |
| CAS# | Hazardous Components (Chemical Name) | Other US EPA or State Lists | | |
| NA | (Trade Secret) | CAA HAP,ODC: No PROP.65: No | o; CWA NPDES: No | TSCA: No; CA |



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Regulatory Information This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)

Statement: No.1272/2008.

Section 16. Other Information

Revision Date: 09/17/2019

Additional Information About No data available.

This Product:

Company Policy or Disclaimer: DISCLAIMER: This information is believed to be accurate and represents the best information

currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for

their particular purposes.