SAFETY DATA SHEET
Sphingosine-1-Phosphate Lyase Fluorogenic Substrate

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

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

1.1 Product Code: 13238
Product Name: Sphingosine-1-Phosphate Lyase Fluorogenic Substrate
Synonyms: 2S-ammonio-3R-hydroxy-5-((2-oxo-2H-chromen-7-yl)oxy)pentyl hydrogen phosphate; S1P Lyase Fluorogenic Substrate;

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:

2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]:

Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.

GHS Hazard Phrases:
No phrases apply.

GHS Precaution Phrases:
No phrases apply.

GHS Response Phrases:
Please refer to Section 7 for Storage and Section 13 for Disposal information.

2.2 Label Elements:

2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]:

GHS Signal Word:

GHS Hazard Phrases:
Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.

GHS Precaution Phrases:
No phrases apply.

GHS Response Phrases:
No phrases apply.

GHS Storage and Disposal Phrases:

2.3 Adverse Human Health Effects and Symptoms:

Material may be irritating to the mucous membranes and upper respiratory tract.
May be harmful by inhalation, ingestion, 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

<table>
<thead>
<tr>
<th>CAS # / RTECS #</th>
<th>Hazardous Components (Chemical Name)/REACH Registration No.</th>
<th>Concentration</th>
<th>EC No./EC Index No.</th>
<th>GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>Sphingosine-1-Phosphate Lyase Fluorogenic Substrate</td>
<td>100.0 %</td>
<td>NA</td>
<td>No data available</td>
</tr>
</tbody>
</table>
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 15 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 15 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 Media:

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

Use water spray to cool fire-exposed containers.

Unsuitable Extinguishing Media:

A solid water stream may be inefficient.

5.2 Flammable Properties and Hazards:

- **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.

6.2 Environmental Precautions:

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

6.3 Methods and Material For Containment and Cleaning:

Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

Section 7. Handling and Storage

7.1 Precautions To Be Taken in Handling:

Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.

7.2 Precautions To Be Taken in Storing:

Keep container tightly closed. Store in accordance with information listed on the product insert.

Section 8. Exposure Controls/Personal Protection

8.1 Exposure Parameters:

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>Britain EH40</th>
<th>France VL</th>
<th>Europe</th>
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</thead>
<tbody>
<tr>
<td>NA</td>
<td>Sphingosine-1-Phosphate Lyase Fluorogenic Substrate</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
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</tbody>
</table>
SAFETY DATA SHEET
Sphingosine-1-Phosphate Lyase Fluorogenic Substrate

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>OSHA TWA</th>
<th>ACGIH TWA</th>
<th>Other Limits</th>
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</thead>
<tbody>
<tr>
<td>NA</td>
<td>Sphingosine-1-Phosphate Lyase</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td></td>
<td>Fluorogenic Substrate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2 Exposure Controls:

8.2.1 Engineering Controls
Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

8.2.2 Personal Protection Equipment:

Eye Protection: Safety glasses
Protective Gloves: Compatible chemical-resistant gloves
Respiratory Equipment: NIOSH approved respirator, as conditions warrant.

Work/Hygiene/Maintenance Practices:
Do not take internally.
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Wash thoroughly after handling.

Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Physical States: [ ] Gas [ ] Liquid [X] Solid
Appearance and Odor: A crystalline solid
Melting Point: No data.
Boiling Point: No data.
Flash Pt: No data.
Evaporation Rate: No data.
Explosive Limits:
LEL: No data.
UEL: No data.
Vapor Pressure (vs. Air or mm Hg):
No data.

9.2 Other Information

Percent Volatile: No data.
Molecular Formula & Weight: C14H18NO8P  359.3

Section 10. Stability and Reactivity

10.1 Reactivity: No data available.

10.2 Stability:
Unstable [ ] Stable [X]

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

10.4 Conditions To Avoid: No data available.

10.5 Incompatibility - Materials No data available.

10.6 Hazardous Decomposition Or

Multi-region format
**Sphingosine-1-Phosphate Lyase Fluorogenic Substrate**

**Section 11. Toxicological Information**

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

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>Sphingosine-1-Phosphate Lyase Fluorogenic Substrate</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

**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 Degradability: No data available.

12.3 Bioaccumulative Potential: No data available.

12.4 Mobility in Soil: No data available.

12.5 Results of PBT and vPvB assessment: 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.

**Section 15. Regulatory Information**

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

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>S. 302 (EHS)</th>
<th>S. 304 RQ</th>
<th>S. 313 (TRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>Sphingosine-1-Phosphate Lyase Fluorogenic Substrate</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>Other US EPA or State Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>Sphingosine-1-Phosphate Lyase Fluorogenic Substrate</td>
<td>CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No</td>
</tr>
</tbody>
</table>
Section 16. Other Information

Revision Date: 02/03/2015
Additional Information About This Product: No data available.

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