SAFETY DATA SHEET
Oleoyl 3-carbacyclic Phosphatidic Acid

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: 10010299
Product Name: Oleoyl 3-carbacyclic Phosphatidic Acid
Synonyms: (2-hydroxy-2-oxido-1,2-oxaphospholan-5-yl)methyl ester-9Z-octadecenoic acid; 3-ccPA 18:1;

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]:
Acute Toxicity: Inhalation, Category 3
Acute Toxicity: Oral, Category 4
Skin Corrosion/Irritation, Category 2
Serious Eye Damage/Eye Irritation, Category 2A
Carcinogenicity, Category 2
Toxic To Reproduction, Category 2
Specific Target Organ Toxicity (repeated exposure), Category 1

2.2 Label Elements:

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

GHS Signal Word: Danger
GHS Hazard Phrases:
H331: Toxic if inhaled.
H302: Harmful if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H351: Suspected of causing cancer.
H361: Suspected of damaging fertility or the unborn child.
H372: Causes damage to organs through prolonged or repeated exposure.
GHS Precaution Phrases:
- P261: Avoid breathing (dust/fume/gas/mist/vapours/spray).
- P264: Wash (hands) thoroughly after handling.
- P280: Wear (protective gloves/protective clothing/eye protection/face protection).
- P362+364: Take off contaminated clothing and wash it before reuse.
- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P281: Use personal protective equipment as required.
- P260: Do not breathe (dust/fume/gas/mist/vapours/spray).

GHS Response Phrases:
- P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P311: Call a [POISON CENTER/doctor/...].
- P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P330: Rinse mouth.
- P302+352: IF ON SKIN: Wash with plenty of soap and water.
- P332+313: If skin irritation occurs, get medical advice/attention.
- P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+313: If eye irritation persists, get medical advice/attention.
- P308+313: IF exposed or concerned: Get medical attention/advice.
- P314: Get medical attention/advice if you feel unwell.

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

2.3 Adverse Human Health Effects and Symptoms:
Causes skin irritation.
Causes serious eye irritation.
Harmful if swallowed.
May cause damage to (organs) through prolonged or repeated exposure.
Material may be irritating to the mucous membranes and upper respiratory tract.
May be harmful by skin absorption.
May cause respiratory system irritation.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
Toxic if inhaled.
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>779333-58-3 NA</td>
<td>Oleoyl 3-carbacyclic Phosphatidic Acid</td>
<td>1.0 %</td>
<td>NA/NA</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Multi-region format
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.

4.2 Important Symptoms and Effects, Both Acute and Delayed:

Exposure may cause: dizziness, drowsiness, gastrointestinal disturbances, headache, lassitude, nausea, and vomiting.

Section 5. Fire Fighting Measures

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

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, Protective Equipment and Emergency Procedures:

Avoid breathing vapors and provide adequate ventilation.

As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

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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<tbody>
<tr>
<td>779333-58-3</td>
<td>Oleoyl 3-carbacyclic Phosphatidic Acid</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>67-66-3</td>
<td>Chloroform</td>
<td>TWA: 9.9 mg/m3 (2 ppm) STEL: ()</td>
<td>TWA: 10 mg/m3 (2 ppm) STEL: 250 mg/m3 (50 ppm)</td>
<td>TWA: 10 mg/m3</td>
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</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
Other Protective Clothing: Lab coat
Respiratory Equipment: NIOSH approved respirator, as conditions warrant.

(Specify Type):

Work/Hygienic/Maintenance Practices:
Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.
Wash thoroughly after handling.
No data available.

Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Physical States: [ ] Gas [ X ] Liquid [ ] Solid
Appearance and Odor: Solution
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): 160 MM_HG at 20.0 C
Vapor Density (vs. Air = 1): No data.
Specific Gravity (Water = 1): No data.
Solubility in Water: No data.
Autoignition Pt: No data.
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: protect from air, light, and heat
10.5 Incompatibility - Materials aluminum
   To Avoid:
   lithium
   magnesium
   potassium
   sodium/sodium oxides
   strong bases
   strong oxidizing agents
10.6 Hazardous Decomposition Or
   carbon dioxide
   carbon monoxide
   chlorine
   hydrogen chloride gas
   phosgene gas

Polymerization:
Stable if stored in accordance with information listed on the product insert.
Stability Note(s): No data available.
Reactivity:

Section 11. Toxicological Information

11.1 Information on Toxicological Effects: The toxicological effects of this product have not been thoroughly studied.
Chloroform - Toxicity Data: Oral LD50 (rat): 300 mg/kg; Oral LD50 (mouse): 36 mg/kg; Skin LD50 (rabbit): > 20 gm/kg; Inhalation TCLO (human): 5,000 mg/m3 (7m); Inhalation LC50 (rat): 47,702 mg/m3 (4h);
Chloroform - Irritation Data: Skin (rabbit):10 mg (24h) mild; Eye (rabbit): 20 mg (24h) moderate;
Chloroform - Investigated as a carcinogen, mutagen, reproductive effector and tumorigen; May cause damage to organs through prolonged or repeated exposure.
Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information.
Chloroform RTECS Number: FS9100000.
Carcinogenicity/Other Information: Chloroform - California Prop. 65 carcinogen.
Chloroform - IARC category 2B; NTP Carcinogen - reasonably anticipated;
Carcinogenicity:
<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
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<tbody>
<tr>
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<td>Oleoyl 3-carbacyclic Phosphatidic Acid</td>
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<td>n.a.</td>
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<td>Chloroform</td>
<td>Possible</td>
<td>2B</td>
<td>A3</td>
<td>n.a.</td>
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</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.

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:** Chloroform Solution
- **DOT Hazard Class:** 6.1 - POISON
- **UN/NA Number:** 1888
- **Packing Group:** III

### 14.1 LAND TRANSPORT (European ADR/RID):
- **ADR/RID Shipping Name:** Chloroform Solution
- **UN Number:** 1888
- **Packing Group:** III
- **Hazard Class:** 6.1 - POISON

### 14.3 AIR TRANSPORT (ICAO/IATA):
- **ICAO/IATA Shipping Name:** Chloroform Solution
- **UN Number:** 1888
- **Packing Group:** III
- **Hazard Class:** 6.1 - POISON
- **IATA Classification:** 6.1

**Additional Transport Information:**
Transport in accordance with local, state, and federal regulations. When sold in quantities of less than or equal to 1 mL, or 1 g, with an Excepted Quantity Code of E1, E2, E4, or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.

## Section 15. Regulatory Information

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

<table>
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<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>
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<tbody>
<tr>
<td>779333-58-3</td>
<td>Oleoyl 3-carbacyclic Phosphatidic Acid</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>67-66-3</td>
<td>Chloroform</td>
<td>Yes 10000 LB</td>
<td>Yes 10 LB</td>
<td>Yes</td>
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</table>

### CAS # Hazardous Components (Chemical Name) Other US EPA or State Lists

<table>
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<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>CAA HAP,ODC:</th>
<th>CWA NPDES:</th>
<th>TSCA:</th>
<th>CA PROP.65:</th>
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<tr>
<td>779333-58-3</td>
<td>Oleoyl 3-carbacyclic Phosphatidic Acid</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Regulatory Information</td>
<td>This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.</td>
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**Section 16. Other Information**

**Revision Date:** 03/18/2015

**Additional Information About This Product:** No data available.

**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.