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

1.1 Product Code: 14012
   Product Name: Prostaglandin E2 Ethanolamide
   Synonyms: N-(2-hydroxyethyl)-9-oxo-11.alpha.,15S-dihydroxy-prosta-5Z,13E-dien-1-amide; Dinoprostone Ethanolamide; PGE2-EA; Prostamide E2;

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
   Web site address: www.caymanchem.com
   Information:
   Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300
   CHEMTREC Outside USA and Canada: +1 (703)527-3887

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: Oral, Category 4
   Toxic To Reproduction, Category 1B
2.1.2 Classification according to Directive 1999/45/EC:
   T: Toxic
   Reproductive Hazard: 2
   Risk Phrases: R22, R60, R61
   For full text of R-phrases: see SECTION 15.

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

   GHS Signal Word: Danger
   GHS Hazard Phrases:
   H302: Harmful if swallowed.
   H360: May damage fertility or the unborn child.
   GHS Precaution Phrases:
   P264: Wash {hands} thoroughly after handling.
   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.
   GHS Response Phrases:
   P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
   P330: Rinse mouth.
   P308+313: IF exposed or concerned: Get medical attention/advice.
   GHS Storage and Disposal Phrases:
   Please refer to Section 7 for Storage and Section 13 for Disposal information.
2.2.2 Labeling according to Directive 1999/45/EC:

Reproductive Hazard: 2

2.3 Adverse Human Health Effects and Symptoms:

- Harmful if swallowed.
- Material may be irritating to the mucous membranes and upper respiratory tract.
- May be harmful by inhalation or skin absorption.
- May cause adverse reproductive effects in males and/or females.
- May cause eye, skin, or respiratory system irritation.
- May cause gastrointestinal disturbances.
- May damage fertility or the unborn child.
- May stimulate contraction of intestinal and reproductive smooth muscle.
- This chemical has the potential to induce premature labor or abortion.
- 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>Risk Phrases/ GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>194935-38-1 NA</td>
<td>Prostaglandin E2 Ethanolamide</td>
<td>100.0 %</td>
<td>NA</td>
<td>T; Rp:2, R22-60-61 Acute Tox.(O) 4: H302 Toxic Repro. 1B: H360</td>
</tr>
</tbody>
</table>

### Section 4. First Aid Measures

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.

2. **Important Symptoms and Effects, Both Acute and Delayed:**

   - Exposure can cause: diarrhea, dizziness, fever, flushing, headache, hypotension, nausea, shivering, 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: Use water spray to cool fire-exposed containers.

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 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.

Section 7. Handling and Storage

7.1 Precautions To Be Taken in Handling: Avoid breathing dust/fume/gas/mist/vapours/spray.
Avoid 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>
</tr>
</thead>
<tbody>
<tr>
<td>194935-38-1</td>
<td>Prostaglandin E2 Ethanolamide</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>OSHA TWA</th>
<th>ACGIH TWA</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>194935-38-1</td>
<td>Prostaglandin E2 Ethanolamide</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</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
Other Protective Clothing: Lab coat
Respiratory Equipment (Specify Type): NIOSH approved respirator, as conditions warrant.
Work/Hygienic/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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical States</td>
<td>[ ] Gas [ ] Liquid [ X ] Solid</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>A crystalline solid</td>
</tr>
<tr>
<td>Melting Point</td>
<td>No data</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>No data</td>
</tr>
<tr>
<td>Flash Pt</td>
<td>No data</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data</td>
</tr>
<tr>
<td>Explosive Limits</td>
<td>LEL: No data UEL: No data</td>
</tr>
<tr>
<td>Vapor Pressure (vs. Air or mm Hg)</td>
<td>No data</td>
</tr>
<tr>
<td>Vapor Density (vs. Air = 1)</td>
<td>No data</td>
</tr>
<tr>
<td>Specific Gravity (Water = 1)</td>
<td>No data</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>No data</td>
</tr>
<tr>
<td>Solubility Notes</td>
<td>~12 mg/ml in PBS (pH 7.2); ~100 mg/ml in EtOH, DMF, &amp; DMSO;</td>
</tr>
<tr>
<td>Autoignition Pt</td>
<td>No data</td>
</tr>
</tbody>
</table>

## 9.2 Other Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Volatile</td>
<td>No data</td>
</tr>
<tr>
<td>Molecular Formula &amp; Weight</td>
<td>C22H37NO5 395.5</td>
</tr>
</tbody>
</table>

# Section 10. Stability and Reactivity

## 10.1 Reactivity

No data available.

## 10.2 Stability

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstable</td>
<td>[ ] Stable [ X ]</td>
</tr>
</tbody>
</table>

## 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

**Acids**

No data available.

**Bases**

No data available.

## 10.6 Hazardous

- **Decomposition Or Byproducts:**
  - carbon dioxide
  - carbon monoxide
Section 11. Toxicological Information

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

Carcinogenicity: NTP? No  IARC Monographs? No  OSHA Regulated? No

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

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>194935-38-1</td>
<td>Prostaglandin E2 Ethanolamide</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>194935-38-1</td>
<td>Prostaglandin E2 Ethanolamide</td>
<td>CAA HAP, ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No</td>
</tr>
</tbody>
</table>
European Community Hazard Symbol codes:

Reproductive Hazard: 2

European Community Risk and Safety Phrases:

R22 Harmful if swallowed.
R60 May impair fertility.
R61 May cause harm to the unborn child.
S22 Do not breathe dust.
S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible.)
S53 Avoid exposure - obtain special instructions before use.

Regulatory Information Statement: This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

Section 16. Other Information

Revision Date: 07/15/2014
Additional Information About This Product: No data available.

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