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

<table>
<thead>
<tr>
<th>1.1 Product Code:</th>
<th>12005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name:</td>
<td>Lisdexamfetamine (hydrochloride)</td>
</tr>
<tr>
<td>Synonyms:</td>
<td>(2S)-2,6-diamino-N-[(1S)-1-methyl-2-phenylethyl]-hexanamide, dihydrochloride; Lisdexamphetamine;</td>
</tr>
</tbody>
</table>

## 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]:

- **Flammable Liquids, Category 2**
- **Serious Eye Damage/Eye Irritation, Category 2A**

### 2.1.2 Classification according to Directive 1999/45/EC:

- **F:** Highly Flammable
- **Xi:** Irritant
- **Risk Phrases:** R11, R36
- **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:**
  - H225: Highly flammable liquid and vapor.
  - H319: Causes serious eye irritation.
- **GHS Precaution Phrases:**
  - P210: Keep away from {heat/sparks/open flames/hot surfaces}. - No smoking.
  - P280: Wear {protective gloves/protective clothing/eye protection/face protection}.
  - P264: Wash {hands} thoroughly after handling.
- **GHS Response Phrases:**
  - P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
  - 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.
- **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:

F
Xi

2.3 Adverse Human Health Causes serious eye irritation. 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 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>Risk Phrases/GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>914480-48-1 NA</td>
<td>Lisdexamfetamine (hydrochloride)</td>
<td>1.0 %</td>
<td>NA/NA</td>
<td>No phrases apply.</td>
</tr>
<tr>
<td>64-17-5 KQ6300000</td>
<td>Ethyl alcohol</td>
<td>99.0 %</td>
<td>200-578-6 603-002-00-5</td>
<td>F; R11 Flam. Liq. 2: H225</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.

4.2 Important Symptoms and Effects, Both Acute and Delayed: May cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects.

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: Can release vapors that form explosive mixtures at temperatures at or above the flashpoint. Container explosion may occur under fire conditions. Emits toxic fumes under fire conditions. Sensitive to static discharge. Vapors can travel to a source of ignition and flash back.

Flash Pt: 14.00 C Method Used: Closed Cup
SAFETY DATA SHEET
Lisdexamfetamine (hydrochloride)

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. Note: Flammable as diluted in ethanol.

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 Up: 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. Keep away from sources of ignition. Take precautionary measures against static discharge.

7.2 Precautions To Be Taken in Storing: Keep away from heat, sparks, and flame. Keep container tightly closed. Store in accordance with information listed on the product insert.

Other Precautions: Hygroscopic.

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>914480-48-1</td>
<td>Lisdexamfetamine (hydrochloride)</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethyl alcohol</td>
<td>TWA: 1920 mg/m³ (1000 ppm) STEL: ()</td>
<td>TWA: 1900 mg/m³ (1000 ppm) STEL: 9500 mg/m³ (5000 ppm)</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>914480-48-1</td>
<td>Lisdexamfetamine (hydrochloride)</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethyl alcohol</td>
<td>PEL: 1000 ppm</td>
<td>TLV: 1000 ppm</td>
<td>No data.</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls:

8.2.1 Engineering Controls (Ventilation etc.): 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:** Do not take internally.
Facilities storing or utilizing this material should be equipped with an eyewash 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><strong>Physical States:</strong></td>
<td>[ ] Gas [ X ] Liquid [ ] Solid</td>
</tr>
<tr>
<td><strong>Appearance and Odor:</strong></td>
<td>Solution</td>
</tr>
<tr>
<td><strong>Melting Point:</strong></td>
<td>No data.</td>
</tr>
<tr>
<td><strong>Boiling Point:</strong></td>
<td>No data.</td>
</tr>
<tr>
<td><strong>Flash Pt:</strong></td>
<td>14.00 °C</td>
</tr>
<tr>
<td><strong>Method Used:</strong></td>
<td>Closed Cup</td>
</tr>
<tr>
<td><strong>Evaporation Rate:</strong></td>
<td>No data.</td>
</tr>
<tr>
<td><strong>Explosive Limits:</strong></td>
<td>LEL: 3.3% at 25.0 °C</td>
</tr>
<tr>
<td></td>
<td>UEL: 19.0% at 25.0 °C</td>
</tr>
<tr>
<td><strong>Vapor Pressure (vs. Air or mm Hg):</strong></td>
<td>43 MM Hg at 20.0 °C</td>
</tr>
<tr>
<td><strong>Vapor Density (vs. Air = 1):</strong></td>
<td>No data.</td>
</tr>
<tr>
<td><strong>Specific Gravity (Water = 1):</strong></td>
<td>No data.</td>
</tr>
<tr>
<td><strong>Solubility in Water:</strong></td>
<td>No data.</td>
</tr>
<tr>
<td><strong>Autoignition Pt:</strong></td>
<td>363.00 °C</td>
</tr>
</tbody>
</table>

#### 9.2 Other Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percent Volatile:</strong></td>
<td>No data.</td>
</tr>
<tr>
<td><strong>Molecular Formula &amp; Weight:</strong></td>
<td>C15H25N3O • 2HCl 336.3</td>
</tr>
</tbody>
</table>

### 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:  
heat, flames and sparks

#### 10.5 Incompatibility - Materials To Avoid:  
alkali metals  
ammonia  
peroxides  
strong oxidizing agents

#### 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.

Ethanol - Toxicity Data:
- Oral TDLO (man): 1.14 ml/kg; Oral TDLO (man): 650 mg/kg;
- Oral LD50 (rat): 7,060 mg/kg; Oral LD50 (mouse): 3,450 mg/kg; Oral LD50 (mouse):
  10.5 ml/kg; Oral LD50 (rabbit): 6,300 mg/kg; Inhalation LC50 (rat): 20,000 ppm (10h);
- Inhalation TCLO (human): 1,800 ppm (30m); Inhalation TCLO (human): 2,500 mg/m3
  (20m); Inhalation LC50 (rat): 5,900 mg/m3 (6h); Inhalation LCLO (mouse): 29,300 ppm
  (7h);
- Ethanol - Irritation Data: Eyes (rabbit): 500 mg (24h) mild; Skin (rabbit): 20 mg (24h)
  moderate;

Chronic Toxicological Effects: Ethanol - Investigated as a mutagen, reproductive effector, and tumorigen.

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.

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: Ethyl Alcohol Solution
- DOT Hazard Class: 3 - FLAMMABLE LIQUID
- UN/NA Number: 1170
- Packing Group: II

14.1 LAND TRANSPORT (European ADR/RID):
- ADR/RID Shipping Name: Ethyl Alcohol Solution
- UN Number: 1170
- Hazard Class: 3 - FLAMMABLE LIQUID
- Packing Group: II

14.3 AIR TRANSPORT (ICAO/IATA):
- ICAO/IATA Shipping Name: Ethyl Alcohol Solution
- UN Number: 1170
- Hazard Class: 3 - FLAMMABLE LIQUID
- IATA Classification: 3

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>
<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>914480-48-1</td>
<td>Lisdexamfetamine (hydrochloride)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethyl alcohol</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>914480-48-1</td>
<td>Lisdexamfetamine (hydrochloride)</td>
<td>CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No</td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethyl alcohol</td>
<td>CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: No</td>
</tr>
</tbody>
</table>

European Community Hazard Symbol codes:

- F
- Xi

European Community Risk and Safety Phrases:

- R11 Highly flammable.
- R36 Irritating to eyes.
- S16 Keep away from sources of ignition.
- 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.
- S33 Take precautionary measures against static discharges.
- S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

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: 11/26/2013

Additional Information About This Product: No data available.

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N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required