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

1.1 Product Code: 10006594
Product Name: Losartan (potassium salt)
Synonyms: 2-butyl-4-chloro-1-[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-1H-imidazole-5-methanol, monopotassium salt; DuP 753; MK 954;

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]:
Skin Corrosion/Irritation, Category 2
Serious Eye Damage/Eye Irritation, Category 2A
Target Organ Systemic Toxicity (single exposure), Category 3

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

GHS Signal Word: Warning
GHS Hazard Phrases:
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
GHS Precaution Phrases:
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.
P261: Avoid breathing (dust/fume/gas/mist/vapours/spray).
GHS Response Phrases:
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.
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>
</table>
| 124750-99-8 N16755100 | Losartan (potassium salt) | 100.0 % | NA/NA | Skin Corr. 2: H315  
Eye Damage 2A: H319  
TOST (SE) 3: H335 H336 |

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 hypotension and/or tachycardia.

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.
**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.

**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.

### 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:**

<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>124750-99-8</td>
<td>Losartan (potassium salt)</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>124750-99-8</td>
<td>Losartan (potassium salt)</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** 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.
- No data available.
### Section 9. Physical and Chemical Properties

#### 9.1 Information on Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical States:</strong></td>
<td>[ ] Gas</td>
</tr>
<tr>
<td></td>
<td>[ ] Liquid</td>
</tr>
<tr>
<td></td>
<td>[ X ] Solid</td>
</tr>
<tr>
<td><strong>Appearance and Odor:</strong></td>
<td>A crystalline solid</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>No data.</td>
</tr>
<tr>
<td><strong>Evaporation Rate:</strong></td>
<td>No data.</td>
</tr>
<tr>
<td><strong>Explosive Limits:</strong></td>
<td>LEL: No data.</td>
</tr>
<tr>
<td></td>
<td>UEL: No data.</td>
</tr>
<tr>
<td><strong>Vapor Pressure (vs. Air or mm Hg):</strong></td>
<td>No data.</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>Solubility Notes:</strong></td>
<td>~10 mg/ml in PBS (pH 7.2); ~20 mg/ml in EtOH, DMF &amp; DMSO;</td>
</tr>
<tr>
<td><strong>Autoignition Pt:</strong></td>
<td>No data.</td>
</tr>
</tbody>
</table>

#### 9.2 Other Information

- **Molecular Formula & Weight:** C22H23ClN6O · K 461.0

### 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
- carbon dioxide
- carbon monoxide

#### Decomposition Or
- hydrogen chloride gas
- nitrogen oxides
- potassium oxides

#### Byproducts:
Section 11. Toxicological Information

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

Losartan (potassium salt) - Toxicity Data: Oral TDLO (man): 10 mg/kg/2W (intermittent); Oral TDLO (woman): 1 mg/kg/1D (intermittent); Oral LDLO (rat): 2 g/kg; Oral LDLO (mouse): 1 g/kg;

Chronic Toxicological Effects: Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information.

Losartan (potassium salt) RTECS Number: NI6755100

<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>124750-99-8</td>
<td>Losartan (potassium salt)</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.
   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>124750-99-8</td>
<td>Losartan (potassium salt)</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>124750-99-8</td>
<td>Losartan (potassium salt)</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: 01/29/2015
Additional Information About This Product: No data available.

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