Material Safety Data Sheet
Version 1.2
Revision Date: 02/13/2017

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: 3,5-difluoro-4-hydroxybenzylidene imidazolinone (DFHBI)
Product Number: 400 – 1 mg/5 mg/10 mg
Product Use: For laboratory research purpose
Supplier: Lucerna, Inc.
760 Parkside Avenue
Suite 327B
Brooklyn, NY 11226
USA
Manufacturer: Lucerna, Inc.
760 Parkside Avenue
Suite 327B
Brooklyn, NY 11226
USA
Telephone: +1 855-582-3762
Fax: +1 646-792-4724
Emergency Phone: (646) 504-5697 (For both supplier and manufacturer)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: DFHBI
Formula: C₁₂H₁₀F₂N₂O₂
Molecular Weight: 252.22 g/mol
CAS Number: 1241390-29-3
CAS Name: 4H-Imidazol-4-one, 5-[(3,5-difluoro-4-hydroxyphenyl)methylene]-3,5-dihydro-2,3-dimethyl-, 5 (Z)-

3. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards: No known OSHA hazards
**HMIS Classification**

Health Hazard : 1  
Flammability : 1  
Physical hazards : 1

**NFPA Rating**

Health Hazard : 1  
Fire : 1  
Reactivity Hazard : 1

**Potential Health Effects**

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.  
Skin May be harmful if absorbed through skin. May cause skin irritation.  
Eyes May cause eye irritation.  
Ingestion May be harmful if swallowed.

4. **FIRST AID MEASURES**

**If inhaled**
If breathed in, move person into fresh air. If not breathing give artificial respiration

**In case of skin contact**
Wash off with soap and plenty of water.

**In case of eye contact**
Flush eyes with water as a precaution.

**If swallowed**
Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. **FIRE-FIGHTING MEASURES**

**Flammable properties**

Flash Point : No data available  
Ignition Temperature : No data available

**Suitable extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for fire-fighters**
Wear self contained breathing apparatus for fire fighting if necessary.
6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Avoid dust formation.

**Environmental precautions**
Do not let product enter drains.

**Methods for cleaning up**
Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

**Handling**
Provide appropriate exhaust ventilation at places where dust is formed.

**Storage**
Keep container tightly closed in a dry and well-ventilated place. Hygroscopic. Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

**Respiratory protection**
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**
For prolonged or repeated contact use protective gloves.

**Eye protection**
Safety glasses

**Hygiene measures**
General industrial hygiene practice.
9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

<table>
<thead>
<tr>
<th>Form</th>
<th>Crystalline powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
</tbody>
</table>

Safety data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point</td>
<td>122 - 124 °C (252 - 255 °F)</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>2.52 mg/l at 20 °C</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Storage stability
Stable under recommended storage conditions.

Conditions to avoid
Avoid moisture.

Materials to avoid
Strong oxidizing agents

Hazardous decomposition products
Hazardous decomposition products may form under fire conditions. No known decomposition information

11. TOXICOLOGICAL INFORMATION

Acute toxicity
No data available

Irritation and corrosion
No data available

Sensitization
No data available

Chronic exposure
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Signs and Symptoms of Exposure**
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Potential Health Effects**
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Ingestion May be harmful if swallowed.

12. ECOLOGICAL INFORMATION

**Persistence and degradability**
No data available

**Ecotoxicity effects**
No data available

**Further information on ecology**
No data available

13. DISPOSAL CONSIDERATIONS

**Product**
Observe all federal, state, and local environmental regulations.

**Contaminated packaging**
Dispose of as unused product.

14. TRANSPORT INFORMATION

**DOT (US)**
Not dangerous goods

**IMDG**
Not dangerous goods

**IATA**
Not dangerous goods

15. REGULATORY INFORMATION

**OSHA Hazards**
No known OSHA hazards

**DSL Status**
This product contains the following components that are not on the Canadian DSL nor NDSL lists.

3,5-difluoro-4-hydroxybenzylidene imidazolinone  CAS-No. 1241390-29-3

**SARA 302 Components**
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**
No SARA Hazards

**Massachusetts Right To Know Components**
No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**
3,5-difluoro-4-hydroxybenzylidene imidazolinone  CAS-No. 1241390-29-3

**New Jersey Right To Know Components**
3,5-difluoro-4-hydroxybenzylidene imidazolinone  CAS-No. 1241390-29-3

**California Prop. 65 Components**
This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.
16. OTHER INFORMATION

Further information
Copyright 2011 Lucerna, Inc. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Lucerna, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.