



## Material Safety Data Sheet

Version 2.0

Release Date: 10/12/2017

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : 3,5-difluoro-4-hydroxybenzylidene imidazolinone-2-oxime (DHFO)

Product Number : 500 – 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 : DFHO

Formula :  $C_{12}H_9F_2N_3O_2$

Molecular Weight : 281.2 g/mol

CAS Number :

CAS Name : (*E*)-4-((*Z*)-3,5-difluoro-4-hydroxybenzylidene)-1-methyl-5-oxo-4,5-dihydro-1*H*-imidazole-2-carbaldehyde oxime

### 3. HAZARDS IDENTIFICATION

#### Emergency Overview

Lucerna, Inc.™

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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 : 152.1 ± 30.7 °C  
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

Form	Crystalline powder
Color	Yellow-Orange
Odor	Odorless

### Safety data

pH	Not applicable
Melting point	No data available
Boiling point	No data available
Flash point	No data available
Ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Water solubility	3.20 mg/l at 25 °C

## 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.

4*H*-Imidazol-4-one, 5-[(3,5-difluoro-4-hydroxyphenyl)methylene]-3,5-dihydro-2-methyl-3-(2,2,2-trifluoroethyl)-, (5*Z*)- CAS-No. 1539318-36-9

**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**

(*E*)-4-((*Z*)-3,5-difluoro-4-hydroxybenzylidene)-1-methyl-5-oxo-4,5-dihydro-1*H*-imidazole-2-carbaldehyde oxime CAS-No.

**New Jersey Right To Know Components**

(*E*)-4-((*Z*)-3,5-difluoro-4-hydroxybenzylidene)-1-methyl-5-oxo-4,5-dihydro-1*H*-imidazole-2-carbaldehyde oxime CAS-No.

**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**

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