



## Material Safety Data Sheet

Version 2.0

Release Date: 9/7/2023

### 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 327C Brooklyn, NY 11226 USA
Manufacturer	Lucerna, Inc. 760 Parkside Avenue Suite 327C 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	$C_{12}H_{10}F_2N_2O_2$
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
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#### HMIS Classification

Health hazard	1
Flammability	1
Physical hazards	1

#### NFPA Rating

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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. Consult a doctor.

##### In case of skin contact

Wash off with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes, and wash before reuse. Consult a doctor.

##### In case of eye contact

Flush eyes with plenty of water for at least 15 minutes. Consult a doctor.

##### If swallowed

Rinse mouth with plenty of water. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a doctor.

#### 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 hazards arising from the substance or mixture

In combustion, may emit toxic fumes.

##### Special protective equipment for fire-fighters

Wear suitable protective clothing to prevent contact with skin and eyes. Wear self-contained breathing apparatus for firefighting if necessary.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions

Do not take action without suitable protective clothing. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust, or gas.

##### Environmental precautions

Do not let product enter drains.

##### Methods for cleaning up

Cover spillage with suitable absorbent materials. Sweep up material and shovel. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

### Handling

Provide appropriate exhaust ventilation at places where dust and aerosols are formed. Avoid inhalation, contact with eyes, skin, and clothing. Keep away from sources of ignition, Avoid prolonged or repeated exposure.

### Storage

Keep container tightly closed in a dry and well-ventilated place. Keep away from direct sunlight. Keep container tightly sealed until ready to use. Recommended storage temperature: -20°C.

### Specific end uses

Use in a laboratory fume hood where possible.

## 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

Use appropriate chemical resistant gloves. Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

#### Eye protection

Use appropriate safety glasses.

#### Body protection

Wear appropriate protective clothing.

#### Hygiene measures

General industrial hygiene practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form	Crystalline powder
Color	Yellow
Odor	Odorless

### Safety data

pH	Not applicable
Melting point	122 - 124 °C (252 - 255 °F)
Boiling point	No data available

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Flash point	No data available
Ignition temperature	No data available
Lower explosion limit	No data available
Solubility	Soluble at 50 mM DMSO
Upper explosion limit	No data available

## 10. STABILITY AND REACTIVITY

### **Storage stability**

Stable under recommended transport or storage conditions.

### **Chemical stability**

Stable under recommended storage conditions.

### **Conditions to avoid**

Avoid heat and moisture.

### **Materials to avoid**

Strong acids/alkalis and oxidizing/reducing 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**

Classification criteria not met based on available data.

### **Germ cell mutagenicity**

Classification criteria not met based on available data.

### **Carcinogenicity**

Classification criteria not met based on available data.

### **Reproductive toxicity**

Classification criteria not met based on available data.

### **Specific target organ toxicity – single exposure**

Classification criteria not met based on available data.

### **Specific target organ toxicity – repeated exposure**

Classification criteria not met based on available data.

### **Aspiration hazard**

Classification criteria not met based on available data.

### **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.
Delayed/immediate effects	No known symptoms.

## 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 in a regulated landfill site or other method for hazardous or toxic wastes in accordance with all federal, state, and local environmental regulations.

## 14. TRANSPORT INFORMATION

Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT, and IATA.

### **UN-Number**

Does not meet the criteria for classification as dangerous goods.

### **UN proper shipping name**

Does not meet the criteria for classification as dangerous goods.

### **Transport hazard class**

Does not meet the criteria for classification as dangerous goods.

### **Packaging group**

Does not meet the criteria for classification as dangerous goods.

### **Environmental hazards**

Does not meet the criteria for classification as dangerous goods.

### **Special precautions for users**

No data available

## 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**

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**New Jersey Right To Know Components**

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**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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