

## SAFETY DATA SHEET

Version 6.0  
Revision Date 09/28/2019  
Print Date 10/03/2019

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : Furilazole

Product Number : 32431  
Brand : Sigma-Aldrich  
CAS-No. : 121776-33-8

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Synthesis of substances

**1.3 Details of the supplier of the safety data sheet**

Company : Sigma-Aldrich Inc.  
3050 Spruce Street  
ST. LOUIS MO 63103  
UNITED STATES

Telephone : +1 314 771-5765  
Fax : +1 800 325-5052

**1.4 Emergency telephone number**

Emergency Phone # : +1-703-527-3887

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Acute toxicity, Oral (Category 4), H302  
Short-term (acute) aquatic hazard (Category 2), H401

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 GHS Label elements, including precautionary statements**

Pictogram



Signal word : Warning

Hazard statement(s)  
H302 : Harmful if swallowed.  
H401 : Toxic to aquatic life.

Precautionary statement(s)  
P264 : Wash skin thoroughly after handling.

|             |                                                                     |
|-------------|---------------------------------------------------------------------|
| P270        | Do not eat, drink or smoke when using this product.                 |
| P273        | Avoid release to the environment.                                   |
| P301 + P312 | IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.       |
| P330        | Rinse mouth.                                                        |
| P501        | Dispose of contents/ container to an approved waste disposal plant. |

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms : (RS)-3-Dichloroacetyl-5-(2-furanyl)-2,2-dimethyl-1,3-oxazolidine

Molecular weight : 278.13 g/mol  
CAS-No. : 121776-33-8

| Component                                                          | Classification                            | Concentration |
|--------------------------------------------------------------------|-------------------------------------------|---------------|
| <b>Oxazolidine, 3-(dichloroacetyl)-5-(2-furanyl)-2,2-dimethyl-</b> |                                           |               |
|                                                                    | Acute Tox. 4; Aquatic Acute 2; H302, H401 | <= 100 %      |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### 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. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

No data available

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.  
For personal protection see section 8.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.  
Discharge into the environment must be avoided.

### 6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.  
For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

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

Keep in a dry place.

Storage class (TRGS 510): 13: Non Combustible Solids

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

##### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |                                            |                                                        |
|--------------------------------------------|--------------------------------------------------------|
| a) Appearance                              | Form: powder<br>Colour: light yellow                   |
| b) Odour                                   | No data available                                      |
| c) Odour Threshold                         | No data available                                      |
| d) pH                                      | No data available                                      |
| e) Melting point/freezing point            | Melting point/range: 96.6 - 97.6 °C (205.9 - 207.7 °F) |
| f) Initial boiling point and boiling range | No data available                                      |
| g) Flash point                             | ( )No data available                                   |
| h) Evaporation rate                        | No data available                                      |

|    |                                              |                                |
|----|----------------------------------------------|--------------------------------|
| i) | Flammability (solid, gas)                    | No data available              |
| j) | Upper/lower flammability or explosive limits | No data available              |
| k) | Vapour pressure                              | No data available              |
| l) | Vapour density                               | No data available              |
| m) | Relative density                             | No data available              |
| n) | Water solubility                             | 0.197 g/l at 20 °C (68 °F)     |
| o) | Partition coefficient: n-octanol/water       | log Pow: 2.12 at 23 °C (73 °F) |
| p) | Auto-ignition temperature                    | No data available              |
| q) | Decomposition temperature                    | No data available              |
| r) | Viscosity                                    | No data available              |
| s) | Explosive properties                         | No data available              |
| t) | Oxidizing properties                         | No data available              |

## 9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

Other decomposition products - No data available

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 869 mg/kg

LC100 Inhalation - Rat - > 2.3 mg/l

LD50 Dermal - Rat - > 5,000 mg/kg

No data available

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

#### Carcinogenicity

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 on OSHA's list of regulated carcinogens.

#### Reproductive toxicity

No data available

No data available

#### Specific target organ toxicity - single exposure

No data available

#### Specific target organ toxicity - repeated exposure

No data available

#### Aspiration hazard

No data available

#### Additional Information

RTECS: Not available

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## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish LC50 - *Lepomis macrochirus* (Bluegill sunfish) - 4.6 mg/l - 96 h

Toxicity to daphnia and other aquatic LC50 - *Daphnia* (water flea) - 26 mg/l - 48 h

invertebrates

Toxicity to algae EbC50 - Algae - 85 mg/l - 72 h

#### **12.2 Persistence and degradability**

Biodegradability aerobic - Exposure time 33 - 53 d

Result: - Readily biodegradable.

#### **12.3 Bioaccumulative potential**

No data available

#### **12.4 Mobility in soil**

No data available

#### **12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### **12.6 Other adverse effects**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic life.

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### **SECTION 13: Disposal considerations**

#### **13.1 Waste treatment methods**

##### **Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

##### **Contaminated packaging**

Dispose of as unused product.

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### **SECTION 14: Transport information**

#### **DOT (US)**

Not dangerous goods

#### **IMDG**

Not dangerous goods

#### **IATA**

Not dangerous goods

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### **SECTION 15: Regulatory information**

#### **SARA 302 Components**

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

#### **SARA 313 Components**

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**

Acute Health Hazard

## **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

## **Pennsylvania Right To Know Components**

|                                                             |                        |               |
|-------------------------------------------------------------|------------------------|---------------|
| Oxazolidine, 3-(dichloroacetyl)-5-(2-furanyl)-2,2-dimethyl- | CAS-No.<br>121776-33-8 | Revision Date |
|-------------------------------------------------------------|------------------------|---------------|

## **New Jersey Right To Know Components**

|                                                             |                        |               |
|-------------------------------------------------------------|------------------------|---------------|
| Oxazolidine, 3-(dichloroacetyl)-5-(2-furanyl)-2,2-dimethyl- | CAS-No.<br>121776-33-8 | Revision Date |
|-------------------------------------------------------------|------------------------|---------------|

## **California Prop. 65 Components**

|                                                                                                                                                         |                        |                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------|
| WARNING! This product contains a chemical known to the State of California to cause cancer. Oxazolidine, 3-(dichloroacetyl)-5-(2-furanyl)-2,2-dimethyl- | CAS-No.<br>121776-33-8 | Revision Date<br>2011-05-20 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------|

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## **SECTION 16: Other information**

### **Further information**

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