

## SAFETY DATA SHEET

Version 6.0  
Revision Date 05/25/2018  
Print Date 11/18/2018

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1. PRODUCT AND COMPANY IDENTIFICATION

## 1.1 Product identifiers

Product name : 15-<I>O</I>-Acetyl-4-deoxynivalenol, from  
<I>Fusarium graminearum</I>

Product Number : A1556

Brand : Sigma

CAS-No. : 88337-96-6

## 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 # : (314) 776-6555

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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 2), H300

Acute toxicity, Inhalation (Category 3), H331

Acute toxicity, Dermal (Category 3), H311

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 : Danger

Hazard statement(s)

H300

H311 + H331

Fatal if swallowed.

Toxic in contact with skin or if inhaled.

|                            |                                                                                                  |
|----------------------------|--------------------------------------------------------------------------------------------------|
| Precautionary statement(s) |                                                                                                  |
| P261                       | Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.                                           |
| P264                       | Wash skin thoroughly after handling.                                                             |
| P270                       | Do not eat, drink or smoke when using this product.                                              |
| P271                       | Use only outdoors or in a well-ventilated area.                                                  |
| P280                       | Wear protective gloves/ protective clothing.                                                     |
| P301 + P310                | IF SWALLOWED: Immediately call a POISON CENTER/doctor.                                           |
| P302 + P352                | IF ON SKIN: Wash with plenty of soap and water.                                                  |
| P304 + P340                | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P312                       | Call a POISON CENTER/doctor if you feel unwell.                                                  |
| P322                       | Specific measures (see supplemental first aid instructions on this label).                       |
| P330                       | Rinse mouth.                                                                                     |
| P361                       | Remove/Take off immediately all contaminated clothing.                                           |
| P363                       | Wash contaminated clothing before reuse.                                                         |
| P403 + P233                | Store in a well-ventilated place. Keep container tightly closed.                                 |
| P405                       | Store locked up.                                                                                 |
| P501                       | Dispose of contents/ container to an approved waste disposal plant.                              |

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

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Synonyms : 15-Acetoxy-3 $\alpha$ ,7 $\alpha$ -dihydroxy-12,13-epoxytrichothec-9-en-8-one

Formula : C<sub>17</sub>H<sub>22</sub>O<sub>7</sub>

Molecular weight : 338.35 g/mol

CAS-No. : 88337-96-6

#### Hazardous components

| Component                                                                                                          | Classification                                   | Concentration |
|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------|
| <b>(3<math>\alpha</math>,7<math>\alpha</math>)- 15-(Acetyloxy)-12,13-epoxy-3,7-dihydroxy-trichothec-9-en-8-one</b> |                                                  |               |
|                                                                                                                    | Acute Tox. 2; Acute Tox. 3;<br>H300, H311 + H331 | <= 100 %      |

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

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General advice

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

#### 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. Take victim immediately to hospital. 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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## 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

### 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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## 6. ACCIDENTAL RELEASE MEASURES

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

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. 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.

### 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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## 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.

Recommended storage temperature 2 - 8 °C

Storage class (TRGS 510): 6.1B: Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

### 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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## 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**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### **Personal protective equipment**

##### **Eye/face protection**

Face shield and safety glasses 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.

Full contact

Material: Nitrile rubber  
Minimum layer thickness: 0.11 mm  
Break through time: 480 min  
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact  
Material: Nitrile rubber  
Minimum layer thickness: 0.11 mm  
Break through time: 480 min  
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### **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**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. 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.

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## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 Information on basic physical and chemical properties**

- |                                                 |                   |
|-------------------------------------------------|-------------------|
| a) Appearance                                   | Form: solid       |
| b) Odour                                        | No data available |
| c) Odour Threshold                              | No data available |
| d) pH                                           | No data available |
| e) Melting point/freezing point                 | No data available |
| 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                             | No data available |
| o) Partition coefficient: n-octanol/water       | No data available |
| 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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## 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

Other decomposition products - No data available

In the event of fire: see section 5

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Mouse - 34 mg/kg

Remarks: Gastrointestinal:Ulceration or bleeding from small intestine. Kidney, Ureter, Bladder:Inflammation, necrosis, or scarring of bladder. Blood:Changes in spleen.

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

No data available

#### 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: YD0155000

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

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**12. ECOLOGICAL INFORMATION****12.1 Toxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available((3 $\alpha$ ,7 $\alpha$ )- 15-(Acetyloxy)-12,13-epoxy-3,7-dihydroxy-trichothec-9-en-8-one)

**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**

No data available

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**13. DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

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**14. TRANSPORT INFORMATION****DOT (US)**

UN number: 2811

Class: 6.1

Packing group: II

Proper shipping name: Toxic solids, organic, n.o.s. ((3 $\alpha$ ,7 $\alpha$ )- 15-(Acetyloxy)-12,13-epoxy-3,7-dihydroxy-trichothec-9-en-8-one)

Poison Inhalation Hazard: No

**IMDG**

UN number: 2811

Class: 6.1

Packing group: II

EMS-No: F-A, S-A

Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. ((3 $\alpha$ ,7 $\alpha$ )- 15-(Acetyloxy)-12,13-epoxy-3,7-dihydroxy-trichothec-9-en-8-one)

**IATA**

UN number: 2811

Class: 6.1

Packing group: II

Proper shipping name: Toxic solid, organic, n.o.s. ((3 $\alpha$ ,7 $\alpha$ )- 15-(Acetyloxy)-12,13-epoxy-3,7-dihydroxy-trichothec-9-en-8-one)

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**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**

|                                                                                           | CAS-No.    | Revision Date |
|-------------------------------------------------------------------------------------------|------------|---------------|
| (3 $\alpha$ ,7 $\alpha$ )- 15-(Acetyloxy)-12,13-epoxy-3,7-dihydroxy-trichothec-9-en-8-one | 88337-96-6 |               |

**New Jersey Right To Know Components**

|                                                                                           | CAS-No.    | Revision Date |
|-------------------------------------------------------------------------------------------|------------|---------------|
| (3 $\alpha$ ,7 $\alpha$ )- 15-(Acetyloxy)-12,13-epoxy-3,7-dihydroxy-trichothec-9-en-8-one | 88337-96-6 |               |

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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**16. OTHER INFORMATION****Full text of H-Statements referred to under sections 2 and 3.**

|             |                                           |
|-------------|-------------------------------------------|
| H300        | Fatal if swallowed.                       |
| H311        | Toxic in contact with skin.               |
| H311 + H331 | Toxic in contact with skin or if inhaled. |
| H331        | Toxic if inhaled.                         |

**HMIS Rating**

|                        |   |
|------------------------|---|
| Health hazard:         | 3 |
| Chronic Health Hazard: |   |
| Flammability:          | 0 |
| Physical Hazard        | 0 |

**NFPA Rating**

|                    |   |
|--------------------|---|
| Health hazard:     | 2 |
| Fire Hazard:       | 0 |
| Reactivity Hazard: | 0 |

**Further information**

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**Preparation Information**

Sigma-Aldrich Corporation  
Product Safety – Americas Region  
1-800-521-8956  
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