



# Safety Data Sheet: Nivalenol

## Section 1. Identification of the substance/mixture and of the Company

### Product identifiers

|                        |            |             |  |
|------------------------|------------|-------------|--|
| Product name           | Nivalenol  | EC Number # | 621-749-5                                      |
| Product Code           | NIV        | Formula     | C <sub>15</sub> H <sub>20</sub> O <sub>7</sub> |
| CAS #                  | 23282-20-4 | Mol Weight  | 312.30   |
| Pure substance/mixture | Substance  | RTECS       | YD0167000                                      |

### Intended uses of the substance or mixture and uses advised against

#### Intended use

**Only for Research and/or Development**

#### Uses advised against:

Not for drug,  
Not to be used in humans or animals.  
Not food additive

#### Details of the supplier of the safety data sheet

**FERMENTEK Ltd**  
4 Yatziv street, POB 47120  
Jerusalem 97800,  
Israel

Tel: +972 2 5853953  
Fax: +972 2 5853943  
eMail: fermentek@fermentek.com  
Website: www.fermentek.com

#### Emergency Telephone number

For chemical emergency spill, leak, fire, exposure, or accident calls CHEMTREC day or night:  
Within USA and Canada: 1-800-424-9300. Outside USA and Canada: +1 703-527-3887

This company is the manufacturer of the product, and the supplier of the safety data sheet

**Reach:** A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

## Section 2. Hazards identification

### Classification of the substance or mixture

#### GHS Classification:

|                      |  |
|----------------------|--|
| Acute Toxicity, Oral | (Category 2) – H300 – Fatal if swallowed           |
| Dermal               | (Category 2)---H312---Harmful in contact with skin |

#### GHS Label elements, including precautionary statements



Pictogram:

Signal word: {DANGER}

#### GHS Hazard Statements

|       |                              |
|-------|------------------------------|
| H300: | Fatal if swallowed           |
| H312  | Harmful in contact with skin |

#### GHS Precautionary Statements

|       |  |
|-------|--|
| P201: |  |
| P281: |  |

## Section 3. Composition/information on ingredients

### Substance

|                 |   |
|-----------------|---|
| Substance name: | Nivalenol   |
|                 | CAS Registry #:23282-20-4 EC# 621-749-5   |
|                 | Molecular Formula: <b>C<sub>15</sub>H<sub>20</sub>O<sub>7</sub></b> Molecular Weight: <b>312.30</b> |
|                 | Acute Toxicity, Oral (Category 2 )  |

### Mixture

Not mixture.





## Section 4. *First Aid Measures*

### Description of First Aid Measures

|  |  |
|--|--|
| <b>General advice:</b>                     | If medical attention is required, show this safety data sheet to the doctor.   |
| <b>Eye contact:</b>                        | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.  |
| <b>Skin Contact:</b>                       | Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician.  |
| <b>Ingestion:</b>                          | Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Drink plenty of water. Clean mouth with water and drink afterwards plenty of water. Call a physician   |
| <b>Inhalation:</b>                         | Immediate medical attention is required Remove to fresh air If not breathing, give artificial respiration Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Artificial respiration and/or oxygen may be necessary Call a physician Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician |
| <b>Self-protection of the first aider:</b> | Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.   |

## Section 5. *Fire-fighting measures*

### Extinguishing media

|                                       |   |
|---------------------------------------|---|
| <b>Suitable extinguishing media</b>   | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.            |
| <b>Unsuitable extinguishing media</b> | None  |
| <b>Hazardous combustion products</b>  | Carbon oxides   |
| <b>Advice for firefighters</b>        | Wear self-contained breathing apparatus for fire fighting.<br>Wear protective suit. |

## Section 6. *Accidental release measures*

### Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

### Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

### Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up: Cover liquid spill with sand, earth or other non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, and vermiculite). Cover powder spill with plastic sheet or tarp to minimize spreading. Sweep up and shovel into suitable containers for disposal.

## Section 7. *Handling and storage*

### Precautions for safe handling

Advice on safe handling: Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not



breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

**Conditions for safe storage, including any incompatibilities**

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place.  
Keep out of the reach of children.  
Store at -20 °C.

Incompatible materials: None known based on information available.

**Section 8. Exposure Controls/Personal Protection**

No occupational exposure limits are listed for this material.  
OSHA Permissible Exposure Limits No Data Available  
NIOSH Recommended Exposure Limits No Data Available  
ACGIH Threshold Limit Values No Data Available

**Exposure controls**

**Appropriate engineering controls**

Engineering Controls Showers, Eyewash stations, Ventilation systems  
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Use fumehood for routine work.

**Personal protective equipment**

The employer/end user, prior to use of this product should perform all recommendations below are advisory in nature and a risk assessment. The type of protective equipment must be selected based on the amount and concentration of the dangerous material being used in the workplace.

[PPE=Personal Protection Equipment]

PPE: 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).

PPE: Hand Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal techniques to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices, and wash and dry hands

PPE: Eye Protection: Use a 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)

PPE: Skin and Body Protection: Handle with gloves. Wear protective clothing. Choose body protection according to the amount and concentration of the dangerous substance at the work place. When deemed needed according to the concentration and amount of this product, use a complete body suit

**Section 9. Physical and chemical properties**

**Physical / chemical properties**

|   |                |
|---|----------------|
| Physical State at room temperature            | Solid / powder |
| Color   |                |
| Melting/freezing point                        |                |
| No further safety relevant data are available |                |

**Section 10. Stability and reactivity**

Reactivity: No information available.  
Chemical stability: Stable under normal conditions.  
Conditions to avoid Heat, flames and sparks. Sunlight.  
Incompatible materials Strong reducers and oxidizers





Possibility of Hazardous Reactions      None under normal processing  
Hazardous decomposition products:      Carbon oxides

## Section 11. Toxicological information

### Information on toxicological effects

**The toxicological effects of this product have not been thoroughly studied.**

|  |  |            |
|--|--|------------|
| <b>Acute Toxicity</b>                          | LD50 (oral - rat)  | 19.5 mg/kg |
|  | LD50 (oral - mouse)  | 5 mg/kg    |
| <b>Skin corrosion/irritation:</b>              | Causes skin irritation   |            |
| <b>Serious eye damage/eye irritation:</b>      | No data available  |            |
| <b>Respiratory or skin sensitization:</b>      | No data available  |            |
| <b>Germ cell mutagenicity:</b>                 | Mutagen, experimentally confirmed.                                     |            |
| <b>Carcinogenicity:</b>                        | IARC: - Group 3: Not classifiable as to its carcinogenicity to humans. |            |
| <b>Reproductive toxicity / Teratogenicity:</b> | No data available  |            |
| <b>STOT-SE – single exposure (GHS):</b>        | No data available  |            |
| <b>STOT-RE – repeated exposure (GHS):</b>      | No data available  |            |
| <b>Aspiration hazard:</b>                      | No data available  |            |

#### Potential Health Effects

|                                       |  |
|---------------------------------------|--|
| <b>Inhalation:</b>                    | No data available  |
| <b>Skin</b>                           | Causes skin irritation (experimentally confirmed)  |
| <b>Eyes:</b>                          | No data available  |
| <b>Ingestion</b>                      | Fatal if swallowed   |
| <b>Signs and Symptoms of Exposure</b> | Effects may vary from mild irritation to severe destruction of tissue.,<br>Nausea, Vomiting, Hemorrhage.<br>Skin: Causes dermatitis,<br>Gastrointestinal - ulceration or bleeding from small intestine<br>Gastrointestinal - hypermotility, diarrhea |
| <b>Additional information:</b>        | RTECS: YD0167000   |
| <b>Comment:</b>                       | <b>Other vendors classify this product as fatal by skin contact and inhalation, without specifying any supporting data or publications.</b>  |

## Section 12. Ecological Information

Eco-Toxicity      No further relevant information available  
Other adverse effects      No further relevant information available.

## Section 13. Disposal Considerations

### Waste treatment methods

|  |   |
|--|---|
| <b>Waste from residues / unused products</b> | Dispose of in accordance with local regulations       |
| <b>Contaminated packaging</b>                | Dispose of as unused product. Do not reuse container. |

## Section 14. Transport information

### UN number, Proper Shipping Name, Transport Hazard Class, packing group

|   | US DOT   | ADR/RID:   | IMDG:  | IATA   |
|---|--|--|--|--|
| <b>UN Number</b>                                  | 3462   | 3462   | 3462   | 3462   |
| <b>UN proper shipping name</b>                    | Toxins, extracted from living sources, solid, n.o.s. (Nivalenol) | Toxins, extracted from living sources, solid, n.o.s. (Nivalenol) | Toxins, extracted from living sources, solid, n.o.s. (Nivalenol) | Toxins, extracted from living sources, solid, n.o.s. (Nivalenol) |
| <b>Transport Hazard Class &amp; Packing Group</b> | 6.1<br>Pg II   | 6.1<br>Pg II   | 6.1<br>Pg II   | 6.1<br>Pg II   |





## Section 15. *Regulatory information*

### **Safety, health and environmental regulations/legislation**

|                            |   |
|----------------------------|---|
| <b>USA EPA / TSCA</b>      | This product is not listed on the USA EPA TSCA                            |
| <b>EU ECHA Status</b>      | This product is registered with the EU ECHA under number <b>621-749-5</b> |
| <b>CA: DSL/NDSL Status</b> | This product is not listed on the Canadian DSL/NDSL                       |

## Section 16. *Other information*

**Date of revision: 28 May 2017**

### **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given here is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of SDS

