SECTION-1: Identification of the substance / mixture and the company / undertaking

Catalogue Number	CS-T-52001
Product Name	Deoxynivalenol
CAS No.	51481-10-8
Category	API
Synonyms	Spiro[2,5-methano-1-benzoxepin-10,2′-oxirane], trichothec-9-en-8-one deriv. (ZCI)
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email **sales@clearsynth.com** for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Not available

2.2 Label Elements

Signal Word: Warning

Hazard Statement(s)

Code	Statement
H300	Not available

Precautionary Statement(s)

Code	Statement

P264	Wash hands thoroughly after handling.
P270	Not available
P301+P316	Not available
P321	Specific treatment (see … on this label).
P330	Not available
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulatio

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Deoxynivalenol
CAS Number : 51481-10-8
Molecular Formula : C15H20O6
Molecular Weight : 296.32
Parent Chemical : Deoxynivalenol
Synonyms : Spiro[2,5-methano-1-benzoxepin-10,2′-oxirane], trichothec-9-en-8-one deriv. (ZCI)
Concentration : Not available

SECTION 4: First aid measures

SECTION 4: First-aid measures

4.1 Description of first aid measures
- General advice: Seek medical attention if symptoms occur or persist. Show this SDS to medical personnel.
- Inhalation: Move person to fresh air. If breathing is difficult, seek medical attention.
- Skin contact: Wash with plenty of soap and water. Remove contaminated clothing and wash before reuse. Seek medical attention if irritation develops.
- Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.
- Ingestion: Rinse mouth. Do NOT induce vomiting unless directed by medical personnel. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed
- Not available.

4.3 Indication of any immediate medical attention and special treatment needed
- Treat symptomatically. No data available.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

- Suitable extinguishing media: Use extinguishing measures appropriate to surrounding fire (e.g., water spray, dry chemical, foam, carbon dioxide).
- Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture
- Hazardous combustion products: Not available.
- Specific hazards: Not available.

5.3 Advice for firefighters
- Wear self-contained breathing apparatus (SCBA) and full protective gear.
- Prevent fire-fighting water from entering drains or waterways.

SECTION 6: Accidental release measures

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Avoid breathing dust/vapors/mist.
- Avoid contact with skin and eyes.
- Use appropriate personal protective equipment (see Section 8).
- Ensure adequate ventilation.

6.2 Environmental precautions
- Avoid release to the environment. Prevent entry into drains, surface waters, and soil.

6.3 Methods and material for containment and cleaning up
- Contain spill. Collect spilled material using methods that minimize dust generation.
- Place in a suitable, labeled container for disposal.
- Clean contaminated area with appropriate cleaning methods. Dispose of cleanup materials in accordance with local regulations.

6.4 Reference to other sections
- See Section 8 for exposure controls/personal protection and Section 13 for disposal considerations.

SECTION-7: Handling and storage

SECTION 7: Handling and storage

7.1 Precautions for safe handling
- Handle in accordance with good industrial hygiene and safety practice.
- Avoid formation and inhalation of dust.
- Avoid contact with skin, eyes, and clothing.
- Use with adequate ventilation; use local exhaust where appropriate.
- Wash hands thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities
- Store in a tightly closed container.
- Store in a cool, dry, well-ventilated place.
- Protect from moisture.
- Incompatible materials: Not available.

7.3 Specific end use(s)

- API / laboratory use. Not available.

SECTION 8: Exposure controls / personal protection

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
- Occupational exposure limits: Not available.
- Biological limit values: Not available.

8.2 Exposure controls
- Engineering controls: Provide adequate ventilation. Use local exhaust ventilation where dust may be generated.
- Personal protective equipment (PPE):
- Eye/face protection: Safety glasses with side shields or chemical splash goggles.
- Skin protection: Protective gloves. Wear protective clothing as appropriate.
- Respiratory protection: If ventilation is inadequate or dust is generated, use a suitable particulate respirator in accordance with applicable standards.
- Hygiene measures: Wash hands after handling. Remove contaminated clothing and wash before reuse.
- Environmental exposure controls: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	White Solid
IR spectrum	No data available
pH	No data available
Solubility	In chloroform

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available

Property	Value
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

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
- Avoid dust formation. Avoid heat and moisture. Not available.

10.5 Incompatible materials
- Not available.

10.6 Hazardous decomposition products
- Not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: The acute symptom of poisoning with trichothecenes /is/ characterized by skin irritation ... . /Trichothecenes/ Trichothecenes have multiorgan effects including anoerxia and weight loss, growth retardation, nervous disorders, cardiovascular alterations, immunodepression, hemostatic derangements, skin toxicity, decreased reproductive capacity, bone marrow damage, and alimentary toxic aleukia. (L1948, L1949, A2964)
- Skin corrosion/irritation: The acute symptom of poisoning with trichothecenes /is/ characterized by skin irritation ... . /Trichothecenes/ After direct dermal application or oral ingestion, the trichothecene mycotoxins can cause rapid irritation to the skin or intestinal mucosa, including skin irritation, burning and itching, rash or blisters, and bleeding.

Eye contact can cause tearing, eye pain, conjunctivitis, burning sensations about the eyes, and blurred vision for up to 1 week. Symptoms also include nausea, vomiting, fatigue, dyspnea, and acute vascular effects leading to hypotension and shock. (L1948, L1949)
- Serious eye damage/eye irritation: No data available.
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: No data available.
- Carcinogenicity: Evaluation: There is inadequate evidence in humans for the carcinogenicity of toxins derived from Fusarium graminearum. There is inadequate evidence in experimental animals for the carcinogenicity of deoxynivalenol. Overall evaluation: Toxins derived from Fusarium graminearum, F. culmorum and F. crookwellense are not classifiable as to their carcinogenicity to humans (Group 3).
- Reproductive toxicity: Trichothecenes have multiorgan effects including anoerxia and weight loss, growth retardation, nervous disorders, cardiovascular alterations, immunodepression, hemostatic derangements, skin toxicity, decreased reproductive capacity, bone marrow damage, and alimentary toxic aleukia. (L1948, L1949, A2964)
- STOT-single exposure: /CASE REPORTS/ About 35 outbreaks of acute human illness were reported in China between 1961 and 1985 that were attributed to consumption of scabby wheat and mouldy maize, with at least 7818 victims. Typically, the persons became ill 5-30 min after consumption, with symptoms of nausea, vomiting, diarrhea, abdominal pain, headache, dizziness, and fever. No deaths were reported. In an outbreak in 1984 in Xingtai County, 362 of 383 (94%) persons who ate mouldy maize became ill. Analysis by /thin layer chromatography/ TLC of five samples associated with symptoms in this outbreak, with approximate limits of detection (LODs) of 0.1, 0.04, and 0.05 mg/kg for deoxynivalenol, T-2 toxin, and zearalenone, respectively, indicated the presence of deoxynivalenol at 3.8-93 mg/kg and zearalenone at 0.13-0.59 mg/kg in four samples; one sample contained deoxynivalenol at 0.34 mg/kg and zearalenone at 0.004 mg/kg; neither T-2 toxin nor nivalenol was found. The authors reported the presence of deoxynivalenol at a concentration of 1-40 mg/kg in scabby wheat collected from three villages and significantly higher concentrations of deoxynivalenol in wheat samples collected during the food poisoning incident than in samples not associated with the incident. /It was/ noted that deoxynivalenol was probably responsible for the mycotoxicoses involving scabby wheat and mouldy maize, as zearalenone is relatively non-toxic after a single exposure.
- STOT-repeated exposure: No data available.
- Aspiration hazard: No data available.

Likely routes of exposure
- After direct dermal application or oral ingestion, the trichothecene mycotoxins can cause rapid irritation to the skin or intestinal mucosa, including skin irritation, burning and itching, rash or blisters, and bleeding. Eye contact can cause tearing, eye pain, conjunctivitis, burning sensations about the eyes, and blurred vision for up to 1 week. Symptoms also include nausea, vomiting, fatigue, dyspnea, and acute vascular effects leading to hypotension and shock. (L1948, L1949)

Symptoms related to the physical, chemical and toxicological characteristics
- The acute symptom of poisoning with trichothecenes /is/ characterized by skin irritation ... . /Trichothecenes/

SECTION 12: Ecological information

SECTION 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.

12.5 Results of PBT and vPvB assessment
- Not available.

12.6 Endocrine disrupting properties
- No data available.

12.7 Other adverse effects
- No data available.

SECTION 13: Disposal considerations

SECTION 13: Disposal considerations

13.1 Waste treatment methods
- Dispose of contents/container in accordance with local/regional/national/international regulations.
- Do not discharge to drains or the environment.
- Contaminated packaging: Dispose of as unused product or according to local requirements.
- Waste codes: Not available.

SECTION 14: Transport information

SECTION 14: Transport information

- UN number: Not available.
- UN proper shipping name: Not available.
- Transport hazard class(es): Not available.
- Packing group: Not available.
- Environmental hazards: Not available.
- Special precautions for user: Not available.
- Transport in bulk according to IMO instruments: Not available.

SECTION 15: Regulatory information

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Regulatory listings (e.g., TSCA/DSL/EINECS/ENCS/IECSC): Not available.
- Other regulations: Not available.

15.2 Chemical safety assessment
- No data available.

SECTION 16: Other information

SECTION 16: Other information

- Product name: Deoxynivalenol
- Catalog No.: CS-T-52001
- CAS No.: 51481-10-8
- Synonyms: Spiro[2,5-methano-1-benzoxepin-10,2′-oxirane], trichothec-9-en-8-one deriv. (ZCI)
- Supplier: Clearsynth Labs Ltd., Mumbai, India
- Emergency phone: +91-22-245045900

Disclaimer

- The information provided is believed to be accurate as of the date of preparation; however, no warranty is expressed or implied regarding its accuracy or completeness. Users must determine suitability for their particular purpose and comply with applicable laws and regulations.

Revision information

- Revision date: Not available.
- Version: Not available.

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