

DISARM® O

EPA Registration Number: 66330-64-59807

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product form Mixture
Product name DISARM® O
Synonyms Fluoxastrobin
EPA Registration No. 66330-64-59807

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

Use of the substance/mixture Formulations.
Fungicide.

Restrictions on use See product label for restrictions.

Company information OHP, Inc.
PO Box 51230
Mainland, PA 19451
(800) 659-6745

Emergency telephone number

TRANSPORTATION EMERGENCY (24 hours a day) call Chemtrec: 1-800-424-9300

MEDICAL EMERGENCY (24 hours a day) and Product Information call 1-800-356-4647

SDS Information or Request ohp.com

Hazard statements (GHS-US):

H317 - May cause an allergic skin reaction
H332 - Harmful if inhaled
H372 - Causes damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life

Precautionary statements (GHS-US):

P260 - Do not breathe mist/vapours/spray
P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing must not be allowed out of the workplace
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302 + P352 - If on skin: Wash with plenty of water
P304 + P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P314 - Get medical advice/attention if you feel unwell
P321 - Specific treatment (see Section 4 on this label)
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P362 + P364 - Take off contaminated clothing and wash it before reuse
P391 - Collect spillage
P501 - Dispose of contents/container in accordance with local and national regulations

Other hazards No additional information available

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS-US classification

Acute Tox. 4 (Inhalation:dust,mist) H332
Skin Sens. 1 H317
STOT RE 1 H372
Aquatic Acute 1 H400

Full text of H-phrases: see section 16

Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



GHS07 GHS08 GHS09

Signal word (GHS-US) Danger

Unknown acute toxicity (GHS-US)

3 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Oral).
3 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal).
3 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist)).

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances : Not applicable
Mixture : Components with health hazards above the applicable thresholds are shown.

Name	Product identifier (CAS No.)	%	GHS-US classification
Fluoxastrobin (main constituent)	361377-29-9	40.3	Acute Tox. 4 (Inhalation:dust,mist), H332 STOT RE 1, H372 Aquatic Acute 1, H400
1,2-benzisothiazolone	2634-33-5	0.1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1B, H317
2-methyl-2H-isothiazol-3-one	2682-20-4	0.1	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400

Full text of H-phrases: see section 16

4. FIRST AID MEASURES

Description of first aid measures

First-aid measures

general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures

after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures

after skin contact : Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

First-aid measures

after eye contact : If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures

after ingestion : Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Causes damage to organs through prolonged or repeated exposure.

Symptoms/injuries

after inhalation : Danger of serious damage to health by prolonged exposure through inhalation.;Harmful if inhaled

Symptoms/injuries

after skin contact : May cause an allergic skin reaction.

Indication of any immediate medical attention and special treatment needed

All treatments should be based on observed signs and symptoms of distress in the patient.

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing

media : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing

media : None known.

Special hazards arising from the substance or mixture

Fire hazard : No specific fire or explosion hazard.

Reactivity : No dangerous reactions known.

Advice for firefighters

Firefighting instructions . . . : Do not allow run-off from fire fighting to enter drains or water courses. Exercise caution when fighting any chemical fire.

Protection during

firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear fire/flame resistant/retardant clothing. Wear a self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes.

For non-emergency personnel

Protective equipment : Chemical goggles or safety glasses.

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Emergency procedures . . . : Evacuate unnecessary personnel.

For emergency responders

Protective equipment : Chemical goggles or safety glasses.

Emergency procedures . . . : Ventilate area.

Environmental

precautions : Do not discharge into drains or the environment.

Methods and material for containment and cleaning up

For containment. : Absorb and/or contain spill with inert material, then place in suitable container.

Methods for cleaning up . . . : Wipe up with absorbent material (for example cloth). Take up in non-combustible absorbent material and shove into container for disposal.

Reference to other sections

- Section 13: disposal information.
- Section 7: safe handling.
- Section 8: personal protective equipment.

7. HANDLING AND STORAGE

Precautions for safe handling

Precautions for safe handling : Do not breathe mist, vapours, spray.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Conditions for safe storage, including any incompatibilities

Storage conditions : Do not store near food, foodstuffs, drugs, or potable water supplies. Store in a dry place.

Incompatible products : None known.

Specific end use(s) : Formulations.
Fungicide.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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ACGIH : Not applicable

OSHA : Not applicable

1,2-benzisothiazolone (2634-33-5)

ACGIH : Not applicable

OSHA : Not applicable

2-methyl-2H-isothiazol-3-one (2682-20-4)

ACGIH : Not applicable

OSHA : Not applicable

Fluoxastrobin (361377-29-9)

ACGIH : Not applicable

OSHA : Not applicable

Exposure controls

Appropriate engineering

controls : Avoid creating mist or spray. Avoid splashing. Ensure good ventilation of the work station.

Personal protective

equipment : Avoid all unnecessary exposure.

Hand protection : It is a good industrial hygiene practice to minimize skin contact. Wear suitable gloves. nitrile rubber gloves.

Eye protection : Chemical goggles or safety glasses.

Skin and body

protection : Wear water impervious or resistant protective clothing and gloves.

Applicators and other handlers must wear long-sleeved shirt and long pants, shoes plus socks, and chemical resistant gloves made of any waterproof material, such as nitrile, butyl, neoprene and/or barrier laminate. These are only some of the glove materials that are chemically resistant to this product. For more options, refer to category A on an EPA chemical resistance category selection chart.

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Respiratory protection . . . : In case of inadequate ventilation wear respiratory protection. Use an approved respirator equipped with oil/mist cartridges.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Viscous liquid.
Colour : Off-white
Odour : Slight latex paint odor
Odour threshold : No data available
pH : 6.8 (10% solution)
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Self ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapour pressure : No data available
Relative vapour density at 20 °C : No data available
Relative density : 1.1 g/cc @ 20 °C
Solubility : Water: Solubility in water of component(s) of the mixture:
 • Fluoxastrobin: 2.43 mg/l @ 20 °C pH 4; 2.29 mg/l @ 20 °C pH 7; 2.27 mg/l @ 20 °C pH 9
Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : 822 cSt cps @ 25 °C
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No oxidizing properties.
Explosive limits : No data available
Other information : No additional information available

10. STABILITY AND REACTIVITY

Reactivity : No dangerous reactions known.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Hazardous polymerization will not occur.
Conditions to avoid : None known.
Incompatible materials : None known.
Hazardous decomposition products : Carbon monoxide. Nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity : Inhalation:dust/mist: Harmful if inhaled.

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LD50 oral rat : > 5000 mg/kg
LD50 dermal rat : > 5000 mg/kg
LC50 inhalation rat (mg/l) : 4.9 mg/l

1,2-benzisothiazolone (2634-33-5)

ATE US (oral) : 500.000 mg/kg bodyweight

2-methyl-2H-isothiazol-3-one (2682-20-4)

ATE US (oral) : 100.000 mg/kg bodyweight
ATE US (dermal) : 300.000 mg/kg bodyweight

Fluoxastrobin (361377-29-9)

LD50 oral rat : > 5000 mg/kg
LD50 dermal rat : > 5000 mg/kg
LC50 inhalation rat (mg/l) : > 2170 mg/m³

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Skin corrosion/irritation . . . : Not classified
(Slightly irritating to skin)

Serious eye damage/irritation : Not classified (Not irritating to rabbits on ocular application)

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified
negative in a battery of laboratory tests (fluoxastrobin technical)

Carcinogenicity : Not classified
No evidence of carcinogenicity (fluoxastrobin technical)

Reproductive toxicity : Not classified
No effects on reproduction (fluoxastrobin technical)

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Causes damage to organs through prolonged or repeated exposure.

Fluoxastrobin (361377-29-9)

NOAEL (oral, rat, 90 days) : 1.5 mg/kg bodyweight/day liver effects

Aspiration hazard : Not classified

Symptoms/injuries after skin contact : May cause an allergic skin reaction.

Likely routes of exposure . . . : Skin and eyes contact

12. ECOLOGICAL INFORMATION

Toxicity

Ecology - water : Very toxic to aquatic life.

Fluoxastrobin (361377-29-9)

LC50 fishes 1 : 0.435 mg/l 96 h
Oncorhynchus mykiss

LC50 other aquatic organisms 1 : 0.053 mg/l 96 h M. bahia

EC50 Daphnia 1 : 0.48 mg/l 48 h

LC50 fish 2 : 0.57 mg/l 96 h Cyprinus carpio ; 0.97 mg/l 96 h Lepomis macrochirus

Persistence and degradability : No additional information available

Bioaccumulative potential

Fluoxastrobin (361377-29-9)

Bioconcentration factor

(BCF REACH) : 52.1

Log Pow : 2.86 @ 20 °C

Mobility in soil

Fluoxastrobin (361377-29-9)

Ecology - soil : Slightly mobile in soil.

Other adverse effects

Effect on ozone layer : No known ecological damage caused by this product.

Effect on the global warming : No known ecological damage caused by this product.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Sewage disposal

recommendations ; Do not dispose of waste into sewer.

Waste disposal

recommendations : Dispose in a safe manner in accordance with local/national regulations. Disposal via incineration is recommended.

14. TRANSPORT INFORMATION

In accordance with DOT

Not considered a dangerous good for transport regulations

Additional information

Other information : No supplementary information available.

ADR

Transport document

description : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluoxastrobin), 9, III, (E)

Packing group (ADR) : III

Class (ADR) : 9 - Miscellaneous dangerous substances and articles

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Hazard identification number (Kemler No.) 90

Classification code (ADR) : M6

Danger labels (ADR) 9 - Miscellaneous dangerous compounds



Orange plates



Tunnel restriction code (ADR) E

LQ 5L

Excepted quantities (ADR) . . . E1

Transport by sea

UN-No. (IMDG) 3082

Proper Shipping

Name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluoxastrobin)

Class (IMDG) 9 - Miscellaneous dangerous substances and articles

Packing group (IMDG) III - substances presenting low danger

Marine Pollutant Yes



Air transport

UN-No.(IATA) 3082

Proper Shipping

Name (IATA) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluoxastrobin)

Class (IATA) 9 - Miscellaneous Dangerous Goods

Packing group (IATA) III - Minor Danger

Marine Pollutant Yes



15. REGULATORY INFORMATION

US Federal regulations

1,2-benzisothiazolone

(2634-33-5) Listed on the United States TSCA (Toxic Substances Control Act) inventory

2-methyl-2H-isothiazol-3-one

(2682-20-4) Listed on the United States TSCA (Toxic Substances Control Act) inventory

Fluoxastrobin

(361377-29-9) Not listed on the United States TSCA (Toxic Substances Control Act) inventory

International regulations

CANADA

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WHMIS Classification . . . Class D Division 2 Subdivision B - Toxic material causing other toxic effects

1,2-benzisothiazolone

(2634-33-5) Listed on the Canadian DSL (Domestic Substances List) inventory.

Fluoxastrobin

(361377-29-9) Not listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

1,2-benzisothiazolone

(2634-33-5) Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Fluoxastrobin

(361377-29-9) Not listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4

(Inhalation:dust,mist) H332

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Skin Sens. 1 H317

STOT RE 1 H372

Aquatic Acute 1 H400

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Xn; R20 R43 N; R50

Full text of R-phrases: see section 16

National regulations

No additional information available

US State regulations

No additional information available

US EPA – FIFRA Regulations

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

Signal word (FIFRA) CAUTION.

Hazard statements

(FIFRA) Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes or clothing.

Environmental hazards . . . : This pesticide is toxic to fish and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. The active ingredient in this product can be persistent for several months or longer. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark, or other sensitive areas that may be exposed to spray drift. Do not contaminate water when disposing of equipment washwater or rinsate.

Physical or Chemical
hazards None

16. OTHER INFORMATION

Indication of changes Original Document.

Data sources European Chemicals Agency (ECHA) Registered Substances list. Accessed at <http://echa.europa.eu/>.

Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.

OSHA 29CFR 1910.1200 Hazard Communication Standard.

TSCA Chemical Substance Inventory. Accessed at <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.

Abbreviations and

acronyms ACGIH (American Conference of Government Industrial Hygienists).

ATE: Acute Toxicity Estimate.

CAS (Chemical Abstracts Service) number.

CLP: Classification, Labelling, Packaging.

EC50: Environmental Concentration associated with a response by 50% of the test population.

GHS: Globally Harmonized System (of Classification and Labeling of Chemicals.)

LD50: Lethal Dose for 50% of the test population.

OSHA: Occupational Safety & Health Administration.

STEL: Short Term Exposure Limits.

TSCA: Toxic Substances Control Act.

TWA: Time Weight Average.

Other information None.

Full text of H-phrases:

Acute Tox. 3 (Dermal) Acute toxicity (dermal)
Category 3

Acute Tox. 3 (Oral) Acute toxicity (oral)
Category 3

**Acute Tox. 4
(Inhalation:dust,mist)** Acute toxicity
(inhalation:dust,mist)
Category 4

Acute Tox. 4 (Oral) Acute toxicity (oral)
Category 4

Aquatic Acute 1 Hazardous to the aquatic
environment - Acute Hazard Category 1

Eye Dam. 1 Serious eye damage/eye
irritation Category 1

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Skin Corr. 1B: skin corrosion/irritation
Category 1B

Skin Irrit. 2: skin corrosion/irritation
Category 2

Skin Sens. 1: Skin sensitisation
Category 1

Skin Sens. 1B: Skin sensitisation
Category 1B

STOT RE 1: Specific target organ
toxicity (repeated exposure) Category 1

H301: Toxic if swallowed

H302: Harmful if swallowed

H311: Toxic in contact with skin

H314: Causes severe skin burns
and eye damage

H315: Causes skin irritation

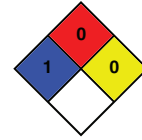
H317: May cause an allergic
skin reaction

H318: Causes serious eye
damage

H332: Harmful if inhaled

H372: Causes damage to
organs through prolonged or repeated exposure

H400: Very toxic to aquatic life



NFPA health hazard: 1 - Exposure could cause
irritation but only minor residual injury even if no treat-
ment is given.

NFPA fire hazard: 0 - Materials that will
not burn.

NFPA reactivity: 0 - Normally stable, even
under fire exposure conditions, and not reactive with
water.

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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