

SAFETY DATA SHEET



ONSUVA®

Version	Revision Date:	SDS Number:	Date of last issue: 10/26/2022
2.0	07/24/2023	50002542	Date of first issue: 10/26/2022

SECTION 1. IDENTIFICATION

Product identifier

Product name ONSUVA®

Other means of identification

Product code 50002542

Recommended use of the chemical and restrictions on use

Recommended use Can be used as fungicide only.

Restrictions on use Use as recommended by the label.

Details of the supplier of the safety data sheet

Manufacturer FMC QUÍMICA DO BRASIL LTDA.
AVENIDA DR. JOSÉ BONIFÁCIO
COUTINHO NOGUEIRA 150 - 1º
ANDAR - JARDIM MADALENA,
CAMPINAS SP BRASIL

TEL: (19) 2042-4500
SDS-Info@fmc.com

Emergency telephone

For leak, fire, spill or accident emergencies, call:
1 800 / 424-9300 (CHEMTREC - U.S.A.)
1 703 / 741-5970 (CHEMTREC - International)
1 703 / 527-3887 (CHEMTREC - Alternate)

Medical emergency:
U.S.A. & Canada: +1 800 / 331-3148
All other countries: +1 651 / 632-6793 (Collect)

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity (Oral) : Category 4

GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H302 Harmful if swallowed.

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Precautionary Statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Difenoconazole	119446-68-3	$\geq 20 - < 30$
Fluindapyr	1383809-87-7	$\geq 20 - < 30$
propane-1,2-diol	57-55-6	$\geq 1 - < 5$
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, phosphate, potassium salt	68186-36-7	$\geq 1 - < 5$
Sodium alkyl naphthalene sulfonate	68425-94-5	$\geq 1 - < 5$

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.

In case of skin contact : Remove contaminated clothing and shoes.
Wash with water and soap as a precaution.
Wash contaminated clothing before re-use.
If symptoms persist, call a physician.

In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.

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- Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Never give anything by mouth to an unconscious person.
Do not induce vomiting without medical advice.
Rinse mouth with water.
Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Harmful if swallowed.
- Protection of first-aiders : Avoid inhalation, ingestion and contact with skin and eyes.
- Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Dry chemical, CO₂, water spray or regular foam.
- Unsuitable extinguishing media : Do not spread spilled material with high-pressure water streams.
- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Thermal decomposition can lead to release of toxic and irritating vapors.
Carbon oxides
Sulfur oxides
Nitrogen oxides (NO_x)
Fluorine compounds
- Specific extinguishing methods : Remove undamaged containers from fire area if it is safe to do so.
Use a water spray to cool fully closed containers.
- Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for fire-fighters : Firefighters should wear protective clothing and self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency measures : Evacuate personnel to safe areas.
Use personal protective equipment.

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- gency procedures If it can be safely done, stop the leak.
Do not touch or walk through the spilled material.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform
respective authorities.
- Methods and materials for
containment and cleaning up : Never return spills in original containers for re-use.
Collect as much of the spill as possible with a suitable absor-
bent material.
Pick up and transfer to properly labeled containers.
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against : Normal measures for preventive fire protection.
fire and explosion
- Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapors/dust.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the ap-
plication area.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national
regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated
place.
Containers which are opened must be carefully resealed and
kept upright to prevent leakage.
Electrical installations / working materials must comply with
the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
propane-1,2-diol	57-55-6	TWA	10 mg/m3	US WEEL

Personal protective equipment

- Respiratory protection : In the case of dust or aerosol formation use respirator with an
approved filter.
- Hand protection
Material : Wear chemical resistant gloves, such as barrier laminate,
butyl rubber or nitrile rubber.
- Remarks : The suitability for a specific workplace should be discussed
with the producers of the protective gloves.

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Eye protection	: Eye wash bottle with pure water Tightly fitting safety goggles
Skin and body protection	: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Protective measures	: Plan first aid action before beginning work with this product.
Hygiene measures	: Avoid contact with skin, eyes and clothing. Do not inhale aerosol. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: liquid
Color	: beige
Odor	: characteristic
Odor Threshold	: No data available
pH	: 6.63 (68 °F / 20 °C) Concentration: 10 g/l
Melting point/range	: No data available
Boiling point	: 206.4 °F / 96.9 °C (0.75 hPa)
Flash point	: 206.4 °F / 96.9 °C Method: Pensky-Martens closed cup - PMCC
Evaporation rate	: No data available
Self-ignition	: No data available
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapor pressure	: No data available

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Relative vapor density	:	No data available
Relative density	:	No data available
Density	:	1.16 g/cm ³
Solubility(ies) Water solubility	:	Miscible
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity Viscosity, dynamic	:	605.6 mPa.s (68 °F / 20 °C) Method: OECD Test Guideline 114
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	Non-oxidizing
Surface tension	:	49.68 mN/m, 68 °F / 20 °C, OECD Test Guideline 115
Molecular weight	:	Not applicable
Metal corrosion rate	:	Not corrosive to metals.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed.
Conditions to avoid	:	Avoid formation of aerosol. Avoid extreme temperatures. UV light
Incompatible materials	:	Avoid strong acids, bases, and oxidizers.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Harmful if swallowed.

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Product:

Acute oral toxicity : LD50 (Rat): Method: OECD Test Guideline 425
Symptoms: Lethargy, Breathing difficulties
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : LC50: > 5.23 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Symptoms: Breathing difficulties, nasal discharge
Assessment: The component/mixture is minimally toxic after short term inhalation.
Remarks: no mortality

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 402
Symptoms: Irritation
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: no mortality

Skin corrosion/irritation

Not classified based on available information.

Product:

Species : Rabbit
Assessment : Not classified as irritant
Method : OECD Test Guideline 404
Result : slight or no skin irritation.

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Species : Rabbit
Result : Slight or no eye irritation
Assessment : Not classified as irritant
Method : OECD Test Guideline 405

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Product:

Test Type : Local lymph node assay (LLNA)
Assessment : Not a skin sensitizer.

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Method : OECD Test Guideline 429

Germ cell mutagenicity

Not classified based on available information.

Product:

Genotoxicity in vitro : Test Type: Ames test
Method: OECD Test Guideline 471
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test
Method: OECD Test Guideline 474
Result: negative

Germ cell mutagenicity - Assessment : Test on bacterial cultures did not show mutagenic effects.,
Animal testing did not show any mutagenic effects.

Carcinogenicity

Not classified based on available information.

Components:

Difenoconazole

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

propane-1,2-diol:

Species : Rat
Application Route : Oral
Exposure time : 2 Years
Result : negative

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:

Difenoconazole

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Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

Fluindapyr:

Effects on fertility : Test Type: Two-generation study
General Toxicity Parent: NOAEL: ca. 30 mg/kg bw/day
Method: OECD Test Guideline 416
GLP: yes

propane-1,2-diol:

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Mouse
Application Route: Oral
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development
Species: Mouse
Application Route: Oral
Method: OECD Test Guideline 414
Result: Animal testing did not show any effects on fertility.
Remarks: Based on data from similar materials

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

Fluindapyr:

Species : Rat
NOAEL : 1,000 mg/kg
Application Route : Dermal
Exposure time : 21 d
Number of exposures : 5 d/w for 6 hr
Dose : 0,100,300,1000 mg/kg bw/day
Method : OECD Test Guideline 410
GLP : yes
Symptoms : Irritation

propane-1,2-diol:

Species : Rat, male and female
NOAEL : 1,700 mg/kg
Application Route : Oral
Exposure time : 2 Years

Species : Rat, male and female
NOAEL : 1,000 mg/kg
LOAEL : 160 mg/kg

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Application Route : Inhalation
Exposure time : 90 Days

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks : No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish	: LC50 (Danio rerio (zebra fish)): 1.69 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 0.39 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	: EyC50 (Pseudokirchneriella subcapitata (algae)): 0.2 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 ErC50 (Pseudokirchneriella subcapitata (algae)): 0.79 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Pseudokirchneriella subcapitata (algae)): 0.032 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to soil dwelling organisms	: Method: OECD Test Guideline 216 Remarks: No significant adverse effect on Nitrogen mineralization. Method: OECD Test Guideline 217 Remarks: No significant adverse effect on Carbon mineralization. LC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg Exposure time: 14 d Method: OECD Test Guideline 207
Toxicity to terrestrial organisms	: LD50 (Apis mellifera (bees)): > 483.8 µg/bee Exposure time: 48 d

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Method: OECD Test Guideline 214

Remarks: Contact

LD50 (*Apis mellifera* (bees)): > 465.8 µg/bee

Exposure time: 48 d

Method: OECD Test Guideline 213

Remarks: Oral

LD50 (*Coturnix japonica* (Japanese quail)): 1,870 mg/kg

Method: OPPTS 850.2100

Components:

Difenoconazole

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): 1.1 mg/l
Exposure time: 96 h

LC50 (*Cyprinus carpio* (Carp)): 0.44 mg/l

Exposure time: 96 h

Toxicity to daphnia and other : EC50 (*Daphnia magna* (Water flea)): 0.77 mg/l
aquatic invertebrates Exposure time: 48 h

EC50 (*Daphnia magna* (Water flea)): 0.17 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic : EC50 (*Scenedesmus subspicatus*): 0.03 mg/l
plants Exposure time: 72 h

ErC50 (*Pseudokirchneriella subcapitata* (algae)): 0.0003 mg/l

Exposure time: 72 h

Toxicity to fish (Chronic tox- : NOEC (*Oncorhynchus mykiss* (rainbow trout)): 0.023 mg/l
icity) Exposure time: 21 d

Toxicity to daphnia and other : NOEC (*Daphnia*): 0.0056 mg/l
aquatic invertebrates (Chron- Exposure time: 21 d
ic toxicity)

Toxicity to soil dwelling or- : LC50 (*Eisenia fetida* (earthworms)): > 610 mg/kg
ganisms

NOEC (*Eisenia fetida* (earthworms)): 0.2 mg/kg

End point: reproduction

Toxicity to terrestrial organ- : LD50 (*Coturnix japonica* (Japanese quail)): > 2,000 mg/kg
isms Exposure time: 9 d

LD50 (*Apis mellifera* (bees)): > 100 µg/bee

NOEL (*Colinus virginianus* (Bobwhite quail)): 9.71 mg/kg

Exposure time: 21 d

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Fluindapyr:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.091 - 0.166 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes

LC50 (Oryzias latipes (Japanese medaka)): > 1.8 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes

LC50 (Danio rerio (zebra fish)): > 2.7 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes

LC50 (Cyprinodon variegatus (sheepshead minnow)): > 0.36 - 0.52 mg/l
Exposure time: 96 h
Test Type: static test
Method: OPPTS 850.1075
GLP: yes

LC50 (Cyprinus carpio (Carp)): 0.095 - 0.12 mg/l
Exposure time: 96 h
Test Type: Static renewal test
Method: OECD Test Guideline 203
GLP: yes

LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.231 - 0.354 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.035 - 0.051 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

EC50 (Daphnia magna (Water flea)): 0.361 - 0.476 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

LC50 (Americamysis bahia (mysid shrimp)): 0.3 - 0.38 mg/l
Exposure time: 96 h
Test Type: static test
Method: OCSPP 850.1035
GLP: yes

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Toxicity to algae/aquatic plants : EyC50 (Pseudokirchneriella subcapitata (green algae)): 0.23 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

ErC50 (Pseudokirchneriella subcapitata (green algae)): 2.03 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

NOEC (Lemna gibba (duckweed)): 2 mg/l
Exposure time: 7 d
Method: OECD Test Guideline 221
GLP: yes

EC50 (Skeletonema costatum (Diatom)): > 2 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0.031 mg/l
Exposure time: 32 d
Test Type: Early-life Stage
Method: OECD Test Guideline 210
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Americamysis bahia (mysid shrimp)): 0.062 mg/l
Exposure time: 28 d
Test Type: flow-through test
Method: OPPTS 850.1350
GLP: yes

NOEC (Daphnia magna (Water flea)): 0.22 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211
GLP: yes

Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg

Method: OECD Test Guideline 216
Remarks: No significant adverse effect on Nitrogen mineralization.

Method: OECD Test Guideline 217
Remarks: No significant adverse effect on Carbon mineralization.

Toxicity to terrestrial organisms : LD50 (Colinus virginianus (Bobwhite quail)): > 2,250 mg/kg

LD50 (Apis mellifera (bees)): > 300 µg/bee

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Exposure time: 48 h
Method: OECD Test Guideline 214
GLP: yes
Remarks: Contact

LD50 (Apis mellifera (bees)): > 32.8 µg/bee
Exposure time: 48 h
Method: OECD Test Guideline 213
GLP: yes
Remarks: Oral

propane-1,2-diol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : (Mysidopsis bahia (opossum shrimp)): 18,800 mg/l
Exposure time: 96 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 34,100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 13,020 mg/l
Exposure time: 7 d

Toxicity to microorganisms : EC50 (Pseudomonas putida): > 20,000 mg/l
Exposure time: 18 h

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, phosphate, potassium salt:

Ecotoxicology Assessment

Acute aquatic toxicity : Harmful to aquatic life.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Sodium alkyl naphthalene sulfonate:

Toxicity to fish : LC50 (Zebra fish): > 10 - 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

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EC10 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10 (Daphnia magna (Water flea)): > 10 - 100 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211
Remarks: Based on data from similar materials

Persistence and degradability

Components:

Difenoconazole

Biodegradability : Remarks: Not readily biodegradable.

Stability in water : Degradation half life: 1 d

Fluindapyr:

Biodegradability : Result: Not readily biodegradable.

propane-1,2-diol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 23.6 %
Exposure time: 64 d
Method: OECD Test Guideline 306

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, phosphate, potassium salt:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 80 %
Exposure time: 28 d
Method: OECD Test Guideline 301D
Remarks: Based on data from similar materials

Sodium alkyl naphthalene sulfonate:

Biodegradability : Result: Not readily biodegradable.
Remarks: Based on data from similar materials

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

Difenoconazole

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Bioaccumulation : Bioconcentration factor (BCF): 330

Partition coefficient: n-octanol/water : log Pow: 4.15

Fluindapyr:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): < 500
Method: OECD Test Guideline 305
GLP: yes
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: > 3

propane-1,2-diol:

Partition coefficient: n-octanol/water : log Pow: -1.07

Mobility in soil

Components:

Difenoconazole

Distribution among environmental compartments : Remarks: Low mobility in soil.

Stability in soil :

Fluindapyr:

Distribution among environmental compartments : Remarks: Low mobility in soil.

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

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Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole, Fluindapyr)

Class : 9
Packing group : III
Labels : 9

IATA-DGR

UN/ID No. : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole, Fluindapyr)

Class : 9
Packing group : III
Labels : Miscellaneous
Packing instruction (cargo aircraft) : 964
Packing instruction (passenger aircraft) : 964
Environmentally hazardous : yes

IMDG-Code

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole, Fluindapyr)

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole, Fluindapyr)

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Class : 9
Packing group : III
Labels : CLASS 9
ERG Code : 171
Marine pollutant : yes
Remarks : Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

Special precautions for user

Remarks : Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.
49CFR: no dangerous good in non-bulk packaging

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
sodium hydroxide	1310-73-2	1000	

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : 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.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

propane-1,2-diol 57-55-6 $\geq 1 - < 5 \%$

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

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sodium hydroxide 1310-73-2 $\geq 0 - < 0.1 \%$
The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

sodium hydroxide 1310-73-2 $\geq 0 - < 0.1 \%$
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

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

Pennsylvania Right To Know

water	7732-18-5
Difenoconazole	119446-68-3
Fluindapyr	
propane-1,2-diol	1383809-87-7
Monobutyl ether of polymer of 2-methyloxirane / oxirane	57-55-6
	9038-95-3

Maine Chemicals of High Concern

octamethylcyclotetrasiloxane [D4]	556-67-2
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Vermont Chemicals of High Concern

octamethylcyclotetrasiloxane [D4]	556-67-2
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Washington Chemicals of High Concern

Product does not contain any listed chemicals

The ingredients of this product are reported in the following inventories:

TCSI	: Not in compliance with the inventory
TSCA	: Product contains substance(s) not listed on TSCA inventory.
AIIC	: Not in compliance with the inventory
DSL	: This product contains the following components that are not on the Canadian DSL nor NDSL. 1383809-87-7 Difenoconazole Smectite-group minerals
ENCS	: Not in compliance with the inventory
ISHL	: Not in compliance with the inventory
KECI	: Not in compliance with the inventory
PICCS	: Not in compliance with the inventory
IECSC	: Not in compliance with the inventory

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NZIoC : Not in compliance with the inventory

TSCA list

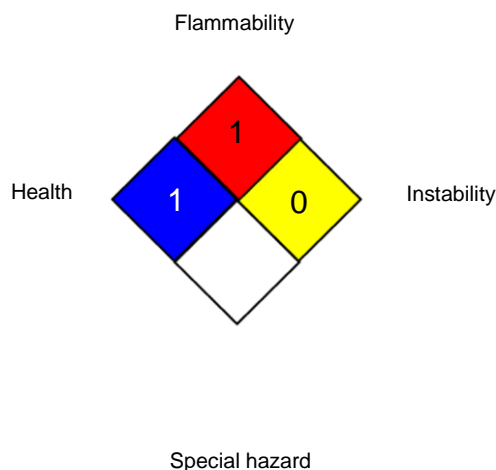
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



0 No health threat, 1 Slightly Hazardous, 2 Hazardous, 3 Extreme danger, 4 Deadly

HMIS® IV:

HEALTH	/	1
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)
US WEEL / TWA : 8-hr TWA

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI -

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Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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End of Material Safety Data Sheet