

# SAFETY DATA SHEET



## FIDRESA®

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### SECTION 1. IDENTIFICATION

**Product identifier**

**Product name** FIDRESA®

**Other means of identification**

**Product code** 50002544

**Recommended use of the chemical and restrictions on use**

**Recommended use** Fungicide

**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)

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### SECTION 2. HAZARDS IDENTIFICATION

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

Serious eye damage : Category 1

Skin sensitization : Category 1

Specific target organ toxicity : Category 3 (Respiratory system)  
- single exposure

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### GHS label elements

Hazard pictograms



Signal Word

: Danger

Hazard Statements

: H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H335 May cause respiratory irritation.

Precautionary Statements

: **Prevention:**  
P261 Avoid breathing mist or vapors.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
P280 Wear protective gloves/ eye protection/ face protection.  
**Response:**  
P302 + P352 IF ON SKIN: Wash with plenty of water and soap.  
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.  
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P363 Wash contaminated clothing before reuse.  
**Storage:**  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
**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)
N,N-dimethyldecan-1-amide	14433-76-2	$\geq 30 - < 50$
Fluindapyr	1383809-87-7	$\geq 5 - < 10$
calcium dodecylbenzenesulphonate	26264-06-2	$\geq 1 - < 5$

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2-ethylhexan-1-ol	104-76-7	>= 1 - < 5
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Actual concentration is withheld as a trade secret

### SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : If on clothes, remove clothes.  
Wash off with soap and water.  
If skin irritation persists, call a physician.  
Wash contaminated clothing before re-use.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.  
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Continue rinsing eyes during transport to hospital.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.  
Do NOT induce vomiting.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.  
Causes serious eye damage.  
May cause respiratory irritation.
- 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, CO<sub>2</sub>, 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.

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- Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)  
Sulfur oxides  
Chlorine compounds  
Fluorine compounds
- Further information : 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.
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## SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
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 absorbent material.  
Pick up and transfer to properly labeled containers.  
Keep in suitable, closed containers for disposal.
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## SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Avoid formation of aerosol.  
Do not breathe vapors/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Provide sufficient air exchange and/or exhaust in work rooms.  
To avoid spills during handling keep bottle on a metal tray.  
Dispose of rinse water in accordance with local and national regulations.  
Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

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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.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : No decomposition if stored and applied as directed.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

### Personal protective equipment

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.

Hand protection  
Material : Protective gloves

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.

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.  
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 : brown

Odor : No data available

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Odor Threshold	:	No data available
pH	:	5.6 Concentration: 10 g/l
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	> 302 °F / 150 °C No data available
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
Relative vapor density	:	No data available
Relative density	:	0.98 (68 °F / 20 °C) No data available
Density	:	No data available
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	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	Non-oxidizing
Molecular weight	:	Not applicable

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## 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.
Incompatible materials	:	Avoid strong acids, bases, and oxidizers.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

Not classified based on available information.

### Product:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 425 Assessment: The component/mixture is minimally toxic after single ingestion.
Acute inhalation toxicity	:	LC50 (Rat): > 5.19 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Symptoms: Abnormal respiration Assessment: The component/mixture is minimally toxic after short term inhalation.
Acute dermal toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 402 Symptoms: irritant effects 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
Method	:	OECD Test Guideline 404
Result	:	Mild skin irritation
Remarks	:	Extremely corrosive and destructive to tissue.

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### Serious eye damage/eye irritation

Causes serious eye damage.

#### Product:

Species	:	Rabbit
Result	:	Irreversible effects on the eye
Assessment	:	Risk of serious damage to eyes.
Method	:	OECD Test Guideline 405

Remarks	:	May cause irreversible eye damage.
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### Respiratory or skin sensitization

#### Skin sensitization

May cause an allergic skin reaction.

#### Respiratory sensitization

Not classified based on available information.

#### Product:

Routes of exposure	:	Skin contact
Species	:	Mouse
Assessment	:	May cause sensitization by skin contact.
Method	:	OECD Test Guideline 429
Result	:	May cause sensitization by skin contact.

Remarks	:	Causes sensitization.
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### Germ cell mutagenicity

Not classified based on available information.

#### Components:

#### **N,N-dimethyldecan-1-amide:**

Genotoxicity in vitro	:	Test Type: reverse mutation assay Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) Result: negative
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	:	Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: negative Remarks: Based on data from similar materials
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	:	Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative Remarks: Based on data from similar materials
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Germ cell mutagenicity - Assessment	:	Weight of evidence does not support classification as a germ cell mutagen.
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**Fluindapyr:**

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Test system: lymphocytes  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: negative

Test Type: gene mutation test  
Test system: mouse lymphoma cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 490  
Result: negative

Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative

**calcium dodecylbenzenesulphonate:**

Genotoxicity in vitro : Test Type: reverse mutation assay  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: chromosome aberration assay  
Species: Rat (male and female)  
Application Route: Oral  
Exposure time: 90 d  
Result: negative  
Remarks: Based on data from similar materials

Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

**2-ethylhexan-1-ol:**

Genotoxicity in vitro : Test Type: reverse mutation assay  
Method: OECD Test Guideline 471  
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse  
Application Route: Intraperitoneal injection  
Result: negative

**Carcinogenicity**

Not classified based on available information.

**Components:****calcium dodecylbenzenesulphonate:**

Species : Rat, male and female

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Application Route : Oral  
Exposure time : 720 d  
NOAEL : 250 mg/kg body weight  
Result : negative  
Remarks : Based on data from similar materials

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

### 2-ethylhexan-1-ol:

Species : Rat  
Application Route : Oral  
Exposure time : 24 month(s)  
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:

#### **N,N-dimethyldecan-1-amide:**

Effects on fetal development : Species: Rat  
Application Route: Ingestion  
Dose: 50, 150, 450mg/kg/bw  
General Toxicity Maternal: NOAEL: 50 - < 150 mg/kg bw/day  
Teratogenicity: NOAEL: >= 450 mg/kg bw/day  
Embryo-fetal toxicity.: NOAEL: 150 - < 450 mg/kg bw/day  
Symptoms: Retardations., Skeletal malformations.  
Method: OECD Test Guideline 414  
Remarks: Based on data from similar materials

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

#### **calcium dodecylbenzenesulphonate:**

Effects on fertility : Test Type: Fertility/early embryonic development

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Species: Rat, male and female  
Application Route: Ingestion  
General Toxicity Parent: NOAEL: 400 mg/kg body weight  
Method: OECD Test Guideline 422  
Result: negative

Effects on fetal development : Test Type: reproductive and developmental toxicity study  
Species: Rat  
Application Route: Ingestion  
General Toxicity Maternal: NOAEL: 300 mg/kg body weight  
Developmental Toxicity: NOAEL: 600 mg/kg body weight  
Method: OECD Test Guideline 422  
Result: negative

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

### 2-ethylhexan-1-ol:

Effects on fetal development : Test Type: Embryo-fetal development  
Species: Mouse  
Application Route: Oral  
Method: OECD Test Guideline 414  
Result: negative

### STOT-single exposure

May cause respiratory irritation.

#### Components:

#### **N,N-dimethyldecan-1-amide:**

Assessment : May cause respiratory irritation.

### 2-ethylhexan-1-ol:

Assessment : May cause respiratory irritation.

### STOT-repeated exposure

Not classified based on available information.

#### Components:

#### **N,N-dimethyldecan-1-amide:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### Repeated dose toxicity

#### Components:

#### **N,N-dimethyldecan-1-amide:**

Species : Dog, male and female  
LOAEL :  $\geq 200$  mg/kg bw/day  
Application Route : Oral

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Exposure time : 13 weeks  
Dose : 40, 200, 1000mg/kg bw  
Method : OECD Test Guideline 409  
Remarks : Based on data from similar materials

### 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

### calcium dodecylbenzenesulphonate:

Species : Rat, male and female  
NOAEL : 85 mg/kg  
LOAEL : 145 mg/kg  
Application Route : Oral  
Exposure time : 9 Months  
Remarks : Based on data from similar materials

Species : Rat, male and female  
NOAEL : 1 mg/kg, 1 mg/l, 1 mg/kg bw/day  
LOAEL : 100 mg/kg, 10 mg/l, 10 ppm  
Application Route : Oral  
Exposure time : 10 unit manually typed 14 h  
Number of exposures : 5 unit manually typed  
Subsequent observation period : 10 unit manually typed  
Method : OECD Test Guideline 422  
Remarks : Based on data from similar materials

Species : Rat, male  
LOAEL : 286 mg/kg  
Application Route : Skin contact  
Exposure time : 15 Days  
Remarks : Based on data from similar materials

### 2-ethylhexan-1-ol:

Species : Rat  
NOAEL : 250 mg/kg  
Application Route : Oral  
Exposure time : 13 weeks  
Method : OECD Test Guideline 408

### Aspiration toxicity

Not classified based on available information.

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### Further information

#### Product:

Remarks : No data available

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### **N,N-dimethyldecan-1-amide:**

Toxicity to fish	: LC50 (Danio rerio (zebra fish)): 14.8 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)): 7.7 mg/l Exposure time: 48 h Test Type: static test Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	: EC50 (Pseudokirchneriella subcapitata (green algae)): 16.06 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials  EC10 (Pseudokirchneriella subcapitata (green algae)): 4.17 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials
Toxicity to fish (Chronic toxicity)	: NOEC (Danio rerio (zebra fish)): >= 0.71 mg/l Exposure time: 35 d Method: OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia magna (Water flea)): 0.866 mg/l Exposure time: 21 d Method: OECD Test Guideline 211
Toxicity to microorganisms	: EC50 (activated sludge): 212.3 mg/l Exposure time: 3 h Method: OECD Test Guideline 209 Remarks: Based on data from similar materials
Toxicity to soil dwelling organisms	: LC50 (Eisenia fetida (earthworms)): 1,032.1 mg/kg Exposure time: 14 d Method: OECD Test Guideline 207  NOEC (Eisenia fetida (earthworms)): 562 mg/kg

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Exposure time: 14 d  
Method: OECD Test Guideline 207

### 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

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		Exposure time: 96 h Test Type: static test Method: OCSPP 850.1035 GLP: yes
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.

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

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

### calcium dodecylbenzenesulphonate:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 10 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
Remarks: Based on data from similar materials

LC50 (Pimephales promelas (fathead minnow)): 4.6 mg/l  
Exposure time: 96 h  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3.5 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): 7.9 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials

EC50 (Pseudokirchneriella subcapitata (green algae)): 65.4 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) : NOEC (Daphnia magna (Water flea)): 1.65 mg/l  
Exposure time: 21 d  
Remarks: Based on data from similar materials

NOEC (Daphnia magna (Water flea)): 1.18 mg/l  
Exposure time: 21 d  
Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50 (activated sludge): 500 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209



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Toxicity to soil dwelling organisms	:	LC50 ( <i>Eisenia fetida</i> (earthworms)): 1,000 mg/kg Exposure time: 14 d Method: OECD Test Guideline 207
Toxicity to terrestrial organisms	:	LD50 ( <i>Colinus virginianus</i> (Bobwhite quail)): 1,356 mg/kg Exposure time: 14 d Method: OECD Test Guideline 223

### 2-ethylhexan-1-ol:

Toxicity to fish	:	LC50 ( <i>Leuciscus idus</i> (Golden orfe)): 17.1 - 28.2 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 ( <i>Daphnia magna</i> (Water flea)): 39 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC10 ( <i>Desmodesmus subspicatus</i> (green algae)): 3.2 mg/l Exposure time: 72 h  EC50 ( <i>Desmodesmus subspicatus</i> (green algae)): 11.5 mg/l Exposure time: 72 h
Toxicity to microorganisms	:	EC50 ( <i>Anabaena flos-aquae</i> (cyanobacterium)): 16.6 mg/l Exposure time: 72 h

### Persistence and degradability

#### Components:

#### **N,N-dimethyldecan-1-amide:**

Biodegradability	:	Inoculum: activated sludge, non-adapted Result: Readily biodegradable. Method: OECD Test Guideline 301B Remarks: Based on data from similar materials
------------------	---	--

#### **Fluindapyr:**

Biodegradability	:	Result: Not readily biodegradable.
------------------	---	------------------------------------

#### **calcium dodecylbenzenesulphonate:**

Biodegradability	:	Result: Readily biodegradable. Method: OECD Test Guideline 301E
------------------	---	--

### 2-ethylhexan-1-ol:

Biodegradability	:	Result: Readily biodegradable.
------------------	---	--------------------------------

### Bioaccumulative potential

#### Components:

#### **N,N-dimethyldecan-1-amide:**

Bioaccumulation	:	Remarks: No bioaccumulation is to be expected (log Pow <= 4).
-----------------	---	---

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Partition coefficient: n-octanol/water : log Pow: 3.44  
Method: QSAR

### 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

### calcium dodecylbenzenesulphonate:

Bioaccumulation : Species: Fish  
Bioconcentration factor (BCF): 70.79  
Method: QSAR

Partition coefficient: n-octanol/water : log Pow: 4.77 (77 °F / 25 °C)

### 2-ethylhexan-1-ol:

Partition coefficient: n-octanol/water : log Pow: 2.9 (77 °F / 25 °C)

### Mobility in soil

#### Components:

#### **N,N-dimethyldecan-1-amide:**

Distribution among environmental compartments : Remarks: Slightly mobile in soils

#### **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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## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

- |                        |   |  |
|------------------------|---|--|
| Waste from residues    | : | The product should not be allowed to enter drains, water courses or the soil.<br>Do not contaminate ponds, waterways or ditches with chemical or used container.<br>Send to a licensed waste management company. |
| Contaminated packaging | : | Empty remaining contents.<br>Dispose of as unused product.<br>Do not re-use empty containers.  |

## SECTION 14. TRANSPORT INFORMATION

### International Regulations

#### UNRTDG

- |                      |   |   |
|----------------------|---|---|
| UN number            | : | UN 3082   |
| Proper shipping name | : | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prothioconazole, Fluindapir) |
| Class                | : | 9   |
| Packing group        | : | III   |
| Labels               | : | 9   |

#### IATA-DGR

- |  |   |   |
|--|---|---|
| UN/ID No.                                | : | UN 3082   |
| Proper shipping name                     | : | Environmentally hazardous substance, liquid, n.o.s. (Prothioconazole, Fluindapir) |
| 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. (Prothioconazole, Fluindapir) |
| 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.

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### Domestic regulation

#### 49 CFR

UN/ID/NA number	: UN 3082
Proper shipping name	: Environmentally hazardous substance, liquid, n.o.s. (Prothioconazole, Fluindapir)
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
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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

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

### 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.

<b>SARA 311/312 Hazards</b>	: No SARA Hazards
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<b>SARA 313</b>	: 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.
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### 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):

2-ethylhexan-1-ol	104-76-7	>= 1 - < 5 %
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### Clean Water Act

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

calcium dodecylbenzenesulphonate	26264-06-2	>= 1 - < 5 %
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The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

calcium dodecylbenzenesulphonate	26264-06-2	>= 1 - < 5 %
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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

calcium dodecylbenzenesulphonate	26264-06-2
2-ethylhexan-1-ol	104-76-7

#### Pennsylvania Right To Know

tris(2-ethylhexyl) phosphate	78-42-2
N,N-dimethyldecan-1-amide	14433-76-2
prothioconazole (ISO)	178928-70-6
Fluindapyr	1383809-87-7
Oxirane, methyl-, polymer with oxirane, mono[2,4,6-tris(1-phenylether)phenyl]ether	70880-56-7
Poly(oxy-1,2-ethanediyl), α-[tris(1-phenylethyl)phenyl]-ω-hydroxy-	99734-09-5
calcium dodecylbenzenesulphonate	26264-06-2
2-ethylhexan-1-ol	104-76-7

#### Maine Chemicals of High Concern

Product does not contain any listed chemicals

#### Vermont Chemicals of High Concern

Product does not contain any listed chemicals

#### Washington Chemicals of High Concern

Product does not contain any listed chemicals

#### California List of Hazardous Substances

calcium dodecylbenzenesulphonate	26264-06-2
----------------------------------	------------

#### 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
	prothioconazole (ISO)

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N,N-dimethyldecan-1-amide

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
NZIoC	:	Not in compliance with the inventory
TECI	:	Not in compliance with the inventory

### TSCA list

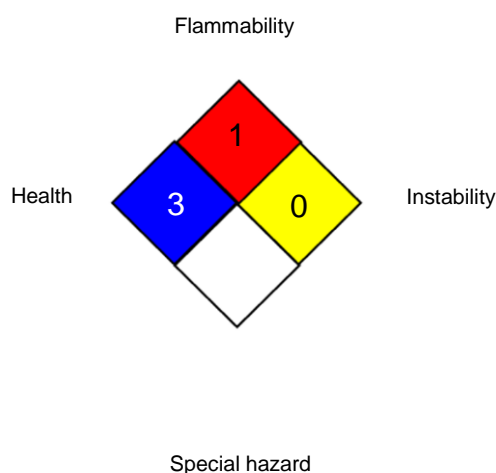
No substances are subject to a Significant New Use Rule.

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	/	3
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

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

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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 - 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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