

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

Section 1: Identification

Product name : Diflubenzuron (25%) Formulation

Other means of identification : COOPERS STRIKE INSECT GROWTH REGULATOR FOR SHEEP DIPPING AND JETTING (48741)

Manufacturer or supplier's details

Company : MSD

Address : 33 Whakatiki Street - Private Bag 908
Upper Hutt - New Zealand

Telephone : 0800 800 543

Emergency telephone number : 0800 764 766 (0800 POISON) 0800 243 622 (0800 CHEMCALL)

E-mail address : EHSDATASTEWARD@msd.com

Recommended use of the chemical and restrictions on use

Recommended use : Veterinary product

Restrictions on use : Not applicable

Section 2: Hazard identification**GHS Classification**

Serious eye damage/eye irritation : Category 1

Skin sensitisation : Category 1

Specific target organ toxicity - repeated exposure : Category 2 (Blood, spleen, Liver)

Hazardous to the aquatic environment - acute hazard : Category 1

Hazardous to the aquatic environment - chronic hazard : Category 1

GHS label elements

Hazard pictograms :



Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

Signal word : Danger

Hazard statements : H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H373 May cause damage to organs (Blood, spleen, Liver) through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P260 Do not breathe mist or vapours.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
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.
P314 Get medical advice/ attention if you feel unwell.
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.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Additional Labelling

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 3 %

Other hazards which do not result in classification

None known.

Section 3: Composition/information on ingredients

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
N-[[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide	35367-38-5	>= 25 -< 30
Nonylphenol, ethoxylated	9016-45-9	>= 3 -< 10
Propylene glycol	57-55-6	>= 1 -< 10
Sodium methyl naphthalene formaldehyde sulfonate	68425-94-5	>= 1 -< 10

Diflubenzuron (25%) Formulation

Version 1.1	Revision Date: 15.08.2025	SDS Number: 11566170-00002	Date of last issue: 24.07.2025 Date of first issue: 24.07.2025
----------------	------------------------------	-------------------------------	---

1,2-Benzisothiazol-3(2H)-one	2634-33-5	>= 0.1 -< 0.25
------------------------------	-----------	----------------

Section 4: First-aid measures

- | | | |
|---|---|--|
| General advice | : | In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice. |
| If inhaled | : | If inhaled, remove to fresh air.
Get medical attention if symptoms occur. |
| In case of skin contact | : | In case of contact, immediately flush skin with plenty of water.
Remove contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse. |
| In case of eye contact | : | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Get medical attention immediately. |
| If swallowed | : | If swallowed, DO NOT induce vomiting.
Get medical attention if symptoms occur.
Rinse mouth thoroughly with water. |
| Most important symptoms and effects, both acute and delayed | : | May cause an allergic skin reaction.
Causes serious eye damage.
May cause damage to organs through prolonged or repeated exposure. |
| Protection of first-aiders | : | First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8). |
| Notes to physician | : | Treat symptomatically and supportively. |

Section 5: Fire-fighting measures

- | | | |
|---------------------------------------|---|---|
| Suitable extinguishing media | : | Water spray
Alcohol-resistant foam
Carbon dioxide (CO ₂)
Dry chemical |
| Unsuitable extinguishing media | : | None known. |
| Specific hazards during fire-fighting | : | Exposure to combustion products may be a hazard to health. |
| Hazardous combustion products | : | Carbon oxides
Chlorine compounds
Nitrogen oxides (NO _x)
Fluorine compounds
Metal oxides |
| Specific extinguishing methods | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue:
1.1	15.08.2025	11566170-00002	24.07.2025
			Date of first issue: 24.07.2025

Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

Hazchem Code : 3Z

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material.
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

Section 7: Handling and storage

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : Use only with adequate ventilation.

Advice on safe handling : Do not get on skin or clothing.
Do not breathe mist or vapours.
Do not swallow.
Do not get in eyes.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Keep container tightly closed.

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

- Take care to prevent spills, waste and minimize release to the environment.
- Hygiene measures** :
- If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
 - When using do not eat, drink or smoke.
 - Contaminated work clothing should not be allowed out of the workplace.
 - Wash contaminated clothing before re-use.
- Conditions for safe storage** :
- The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.
 - Keep in properly labelled containers.
 - Keep tightly closed.
 - Store in accordance with the particular national regulations.
- Materials to avoid** :
- Do not store with the following product types:
 - Strong oxidizing agents

Section 8: Exposure controls/personal protection

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
N-[[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide	35367-38-5	TWA	400 µg/m ³ (OEB 2)	Internal
Propylene glycol	57-55-6	WES-TWA (particulate)	10 mg/m ³	NZ OEL
		WES-TWA (Vapour and particulates)	150 ppm 474 mg/m ³	NZ OEL

- Engineering measures** :
- Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., drip-less quick connections).
 - All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.
 - Laboratory operations do not require special containment.

Personal protective equipment

- Respiratory protection** :
- If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.
- Filter type** :
- Particulates type
- Hand protection**
- Material** :
- Chemical-resistant gloves

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

Eye protection	:	Wear safety glasses with side shields or goggles. If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles. Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.
Skin and body protection	:	Work uniform or laboratory coat.

Section 9: Physical and chemical properties

Appearance	:	Aqueous solution
Colour	:	yellow
Odour	:	No data available
Odour Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	100 °C (1000 hPa)
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	No data available
Solubility(ies) Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	Not applicable

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Molecular weight	:	No data available
Particle characteristics	:	
Particle size	:	Not applicable

Section 10: Stability and reactivity

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Can react with strong oxidizing agents.
Conditions to avoid	:	None known.
Incompatible materials	:	Oxidizing agents
Hazardous decomposition products	:	No hazardous decomposition products are known.

Section 11: Toxicological information

Exposure routes	:	Inhalation Skin contact Ingestion Eye contact
-----------------	---	--

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 2,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: > 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method

Components:**N-[[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:**

Acute oral toxicity	:	LD50 (Rat): 4,640 mg/kg
---------------------	---	-------------------------

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

Acute inhalation toxicity : LC50 (Rat): > 2.49 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Method: OECD Test Guideline 402

Nonylphenol, ethoxylated:

Acute oral toxicity : LD50 (Rat): 500 - 2,000 mg/kg

Propylene glycol:

Acute oral toxicity : LD50 (Rat): 22,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 44.9 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Sodium methyl naphthalene formaldehyde sulfonate:

Acute oral toxicity : LD50 (Rat): > 4,500 mg/kg

1,2-Benzisothiazol-3(2H)-one:

Acute oral toxicity : LD50 (Rat, male): 450 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat, male): 0.21 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Not classified based on available information.

Components:**N-[[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:**

Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: No skin irritation

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

Nonylphenol, ethoxylated:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Propylene glycol:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Sodium methyl naphthalene formaldehyde sulfonate:

Result	:	Skin irritation
--------	---	-----------------

1,2-Benzisothiazol-3(2H)-one:

Result	:	Skin irritation
--------	---	-----------------

Serious eye damage/eye irritation

Causes serious eye damage.

Components:**N-[[[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide:**

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405

Nonylphenol, ethoxylated:

Species	:	Rabbit
Result	:	Irreversible effects on the eye
Method	:	OECD Test Guideline 405

Propylene glycol:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405

Sodium methyl naphthalene formaldehyde sulfonate:

Result	:	Irritation to eyes, reversing within 21 days
--------	---	--

1,2-Benzisothiazol-3(2H)-one:

Species	:	Rabbit
Result	:	Irreversible effects on the eye

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

Respiratory or skin sensitisation**Skin sensitisation**

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

Components:**N-[[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:**

Test Type	: Buehler Test
Exposure routes	: Skin contact
Species	: Guinea pig
Method	: OECD Test Guideline 406
Result	: negative

Nonylphenol, ethoxylated:

Test Type	: Maximisation Test
Exposure routes	: Skin contact
Species	: Guinea pig
Result	: negative
Remarks	: Based on data from similar materials

Propylene glycol:

Test Type	: Maximisation Test
Exposure routes	: Skin contact
Species	: Guinea pig
Result	: negative

1,2-Benzisothiazol-3(2H)-one:

Test Type	: Maximisation Test
Exposure routes	: Skin contact
Species	: Guinea pig
Method	: OECD Test Guideline 406
Result	: positive

Assessment	: Probability or evidence of high skin sensitisation rate in humans
------------	---

Chronic toxicity**Germ cell mutagenicity**

Not classified based on available information.

Components:**N-[[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:**

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES)
	Method: OECD Test Guideline 471
	Result: negative

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Nonylphenol, ethoxylated:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on data from similar materials

Propylene glycol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative

1,2-Benzisothiazol-3(2H)-one:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: positive

Genotoxicity in vivo : Test Type: Unscheduled DNA synthesis (UDS) test with mammalian liver cells in vivo
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 486
Result: negative

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

Carcinogenicity

Not classified based on available information.

Components:**N-[[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:**

Species	:	Rat
Application Route	:	Ingestion
Exposure time	:	104 weeks
Result	:	negative

Propylene glycol:

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

Reproductive toxicity

Not classified based on available information.

Components:**N-[[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:**

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study
		Species: Rat
		Application Route: Ingestion
		Result: negative

Effects on foetal development	:	Test Type: Embryo-foetal development
		Species: Rabbit
		Application Route: Ingestion
		Result: negative

Propylene glycol:

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study
		Species: Mouse
		Application Route: Ingestion
		Result: negative

Effects on foetal development	:	Test Type: Embryo-foetal development
		Species: Mouse
		Application Route: Ingestion
		Result: negative

1,2-Benzisothiazol-3(2H)-one:

Effects on fertility	:	Test Type: Fertility/early embryonic development
		Species: Rat
		Application Route: Ingestion
		Method: OPPTS 870.3800
		Result: negative

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

May cause damage to organs (Blood, spleen, Liver) through prolonged or repeated exposure.

Components:**N-[[[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide:**

Exposure routes	: Ingestion
Target Organs	: Blood, spleen, Liver
Assessment	: Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

Exposure routes	: inhalation (dust/mist/fume)
Target Organs	: Blood, spleen, Liver
Assessment	: Shown to produce significant health effects in animals at concentrations of >0.02 to 0.2 mg/l/6h/d.

Exposure routes	: Skin contact
Target Organs	: Blood, spleen, Liver
Assessment	: Shown to produce significant health effects in animals at concentrations of >20 to 200 mg/kg bw.

1,2-Benzisothiazol-3(2H)-one:

Assessment	: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.
------------	--

Repeated dose toxicity**Components:****N-[[[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide:**

Species	: Rat
LOAEL	: 81 mg/kg
Application Route	: Ingestion
Exposure time	: 28 Days

Species	: Rabbit
NOAEL	: > 322 mg/kg
Application Route	: Skin contact
Exposure time	: 28 Days

Species	: Rat
NOAEL	: > 0.1 mg/l
Application Route	: inhalation (dust/mist/fume)
Exposure time	: 28 Days

Propylene glycol:

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

Species	: Rat, male
NOAEL	: $\geq 1,700$ mg/kg
Application Route	: Ingestion
Exposure time	: 2 yr

1,2-Benzisothiazol-3(2H)-one:

Species	: Dog
NOAEL	: 5 mg/kg
LOAEL	: 20 mg/kg
Application Route	: Ingestion
Exposure time	: 90 Days
Method	: Directive 67/548/EEC, Annex, B.27

Aspiration toxicity

Not classified based on available information.

Section 12: Ecological information**Ecotoxicity****Components:****N-[[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:**

Toxicity to fish	: LC50 (Cyprinodon variegatus (sheepshead minnow)): > 0.13 mg/l Exposure time: 96 h Remarks: No toxicity at the limit of solubility
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 0.00026 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	: EC50 (Selenastrum capricornutum (green algae)): > 0.2 mg/l Exposure time: 72 h Remarks: No toxicity at the limit of solubility
M-Factor (Acute aquatic toxicity)	: 1,000
Toxicity to fish (Chronic toxicity)	: NOEC (Pimephales promelas (fathead minnow)): 0.1 mg/l Exposure time: 35 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia magna (Water flea)): 0.00004 mg/l Exposure time: 21 d
M-Factor (Chronic aquatic toxicity)	: 1,000
Toxicity to microorganisms	: NOEC (activated sludge): $1,000$ mg/l Exposure time: 3 h Method: OECD Test Guideline 209 Remarks: The test was conducted according to guideline

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

Nonylphenol, ethoxylated:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 0.1 - 1 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia dubia (water flea)): > 0.1 - 1 mg/l
Exposure time: 48 h
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : ErC50 (Selenastrum capricornutum (green algae)): > 1 - 10 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

EC10 (Selenastrum capricornutum (green algae)): > 1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

M-Factor (Acute aquatic toxicity) : 1

Toxicity to fish (Chronic toxicity) : NOEC (Oryzias latipes (Japanese medaka)): > 0.1 - 1 mg/l
Exposure time: 100 d
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Mysidopsis bahia (opossum shrimp)): > 0.001 - 0.01 mg/l
Exposure time: 28 d
Remarks: Based on data from similar materials

M-Factor (Chronic aquatic toxicity) : 10

Propylene glycol:

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

Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia dubia (water flea)): 18,340 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Skeletonema costatum (marine diatom)): 19,300 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

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

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

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

Sodium methyl naphthalene formaldehyde sulfonate:**Ecotoxicology Assessment**

Acute aquatic toxicity : Toxic effects cannot be excluded

Chronic aquatic toxicity : Toxic effects cannot be excluded

1,2-Benzisothiazol-3(2H)-one:Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.74 mg/l
Exposure time: 96 hToxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 2.24 mg/l
aquatic invertebrates Exposure time: 48 hToxicity to algae/aquatic : ErC50 (Pseudokirchneriella subcapitata (green algae)):
plants 0.1087 mg/l
Exposure time: 24 hEC10 (Pseudokirchneriella subcapitata (green algae)): 0.0268
mg/l
Exposure time: 24 hM-Factor (Acute aquatic tox- : 1
icity)Toxicity to fish (Chronic tox- : NOEC (Pimephales promelas (fathead minnow)): 0.28 mg/l
icity) Exposure time: 33 d
Method: OECD Test Guideline 210Toxicity to daphnia and other : NOEC (Daphnia magna (Water flea)): 0.91 mg/l
aquatic invertebrates (Chron- Exposure time: 21 d
ic toxicity) Method: OECD Test Guideline 211M-Factor (Chronic aquatic : 1
toxicity)Toxicity to microorganisms : NOEC: 10.3 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209**Persistence and degradability****Components:****N-[[[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide:**Biodegradability : Result: Not readily biodegradable.
Method: OECD Test Guideline 301**Nonylphenol, ethoxylated:**Biodegradability : Result: Not readily biodegradable.
Remarks: Based on data from similar materials

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

Propylene glycol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 98.3 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Bioaccumulative potential**Components:****N-[[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:**

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 78 - 360

Partition coefficient: n-octanol/water : log Pow: 3.7
Method: OECD Test Guideline 107

Nonylphenol, ethoxylated:

Partition coefficient: n-octanol/water : log Pow: 4.48

Propylene glycol:

Partition coefficient: n-octanol/water : log Pow: -1.07
Method: Regulation (EC) No. 440/2008, Annex, A.8

1,2-Benzisothiazol-3(2H)-one:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 6.62

Partition coefficient: n-octanol/water : log Pow: 0.7

Mobility in soil**Components:****N-[[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide:**

Distribution among environmental compartments : log Koc: 3.5
Method: OECD Test Guideline 106
Remarks: The test was conducted according to guideline

Other adverse effects

No data available

Section 13: Disposal considerations**Disposal methods**

Waste from residues : Do not dispose of waste into sewer.
Dispose of in accordance with local regulations.
Contaminated packaging : Empty containers should be taken to an approved waste han-

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

ding site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.

Section 14: Transport information**International Regulations****UNRTDG**

UN number	: UN 3082
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N-[[[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide, Nonylphenol, ethoxylated)
Class	: 9
Packing group	: III
Labels	: 9
Environmentally hazardous	: yes

IATA-DGR

UN/ID No.	: UN 3082
Proper shipping name	: Environmentally hazardous substance, liquid, n.o.s. (N-[[[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide, Nonylphenol, ethoxylated)
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. (N-[[[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide, Nonylphenol, ethoxylated)
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.

National Regulations**NZS 5433**

UN number	: UN 3082
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N-[[[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide,

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

	Nonylphenol, ethoxylated)
Class	: 9
Packing group	: III
Labels	: 9
Hazchem Code	: 3Z
Marine pollutant	: yes

Special precautions for user

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**Safety, health and environmental regulations/legislation specific for the substance or mixture****HSNO Approval Number**

HSR100759 Veterinary Medicines Non dispersive Open System Application Group Standard

Tolerable Exposure Limits (TEL)

Chemical name	Environmental compartment	Reference concentration
diflubenzuron	Air (inhalation)	0.003 mg/m ³

Environmental Exposure Limits (EEL)

Chemical name	Environmental compartment	Reference concentration
diflubenzuron	Fresh water	0.37 µg/l
diflubenzuron	Marine water	0.2 µg/l

HSW Controls

Certified handler certificate not required.

Tracking hazardous substance not required.

Refer to the Health and Safety at Work (Hazardous Substances) Regulations 2017, for further information.

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

AICS : not determined

DSL : not determined

IECSC : not determined

Section 16: Other information

Revision Date : 15.08.2025

Further information

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Diflubenzuron (25%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 24.07.2025
1.1	15.08.2025	11566170-00002	Date of first issue: 24.07.2025

Date format : dd.mm.yyyy

Full text of other abbreviations

NZ OEL : New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

NZ OEL / WES-TWA : Workplace Exposure Standard - Time Weighted average

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; 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; 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; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

NZ / EN