SAFETY DATA SHEET

SULEXIN®

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	2025/08/13	50002959	Date of first issue: 2025/08/13

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SULEXIN®

Recommended use of the chemical and restrictions on use

Recommended use : Can be used as insecticide only.

Restrictions on use : Use as recommended by the label.

Manufacturer or supplier's details

Company : FMC Corporation

Address : 2929 Walnut Street
Philadelphia PA 19104
USA

Telephone : +1 (215) 299-6000

E-mail address : SDS-Info@fmc.com

Emergency telephone : For leak, fire, spill or accident emergencies, call:
001-803-017-9114 (CHEMTREC)
1 703 / 741-5970 (CHEMTREC - International)

Medical emergency:
0800 140 1447

2. HAZARDS IDENTIFICATION

GHS Classification

Long-term (chronic) aquatic hazard : Category 1

GHS label elements

Hazard pictograms :

Signal Word : WARNING

Hazard Statements : H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**

P273 Avoid release to the environment.

Response:

P391 Collect spillage.

Disposal:

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

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Cyantraniliprole	736994-63-1	>= 20 -< 25
flonicamid (ISO)	158062-67-0	>= 20 -< 25

4. FIRST AID MEASURES

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

If inhaled : Remove to fresh air.
If unconscious, place in recovery position and seek medical advice.
If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.

In case of skin contact : If on clothes, remove clothes.
If on skin, rinse well with water.
Wash off with soap and plenty of water.
Get medical attention immediately if irritation develops and persists.

In case of eye contact : Flush eyes with water as a precaution.
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 give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

Do not induce vomiting without medical advice.
Let the exposed person rinse mouth and let him/her drink several glasses of water, but do not induce vomiting. If vomiting does occur, let him/her rinse mouth and drink fluids again.
Get medical attention immediately.

Most important symptoms and effects, both acute and delayed	:	None known.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection and use the recommended protective clothing Avoid inhalation, ingestion and contact with skin and eyes. If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Notes to physician	:	Treat symptomatically. Immediate medical attention is required in case of ingestion.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Dry chemical, CO2, water spray or regular foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	High volume water jet 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	:	Fire may produce irritating, corrosive and/or toxic gases. brominated compounds Nitrogen oxides (NOx) Carbon oxides Chlorinated compounds Hydrogen chloride Hydrogen cyanide Fluorinated compounds
Specific extinguishing methods	:	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. If it can be safely done, move undamaged containers away from the fire. Dike runoff from fire control activities for later disposal.
Special protective equipment for fire-fighters	:	Firefighters should wear protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. If it can be safely done, stop the leak. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Immediately evacuate personnel to safe areas. Ensure adequate ventilation. Never return spills in original containers for re-use. Mark the contaminated area with signs and prevent access to unauthorized personnel. Only qualified personnel equipped with suitable protective equipment may intervene.
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	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Advice on safe handling	:	Do not breathe vapors/dust. For personal protection see section 8. Avoid formation of respirable particles. Dispose of rinse water in accordance with local and national regulations. Smoking, eating and drinking should be prohibited in the application area.
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.
Further information on storage conditions	:	The product is stable under normal conditions of warehouse storage. Store in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. A warning sign reading “POISON” is recommended. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.
Further information on storage stability	:	No decomposition if stored and applied as directed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection	:	In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.
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.
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. Always have on hand a first-aid kit, together with proper instructions. Wear suitable protective equipment. When using do not eat, drink or smoke. In the context of professional plant protection use as recommended, the end user must refer to the label and the instructions for use.
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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Form	:	liquid
Color	:	off-white
Odor	:	mild, Aromatic

Odor Threshold	:	No data available
pH	:	6,42 Concentration: 100 % Method: CIPAC MT 75.3 6,98 Concentration: 1 % Method: CIPAC MT 75.3 (aqueous suspension)
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	No data available
Flammability (liquids)	:	Not expected to be ignitable
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	:	1,204 Method: Regulation (EC) No. 440/2008, Annex, A.3
Density	:	1,204 g/cm3 Method: Regulation (EC) No. 440/2008, Annex, A.3
Bulk density	:	No data available
Solubility(ies)		
Water solubility	:	suspendable
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	Not applicable
Autoignition temperature	:	No data available

Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	397 mPa.s (20 °C) Method: CIPAC MT 192 40 rpm 319 mPa.s (40 °C) Method: CIPAC MT 192 40 rpm
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	Non-oxidizing
Surface tension	:	53,13 mN/m, Regulation (EC) No. 440/2008, Annex, A.5
Particle size	:	No data available
Particle Size Distribution	:	D10 = 0,630 µm ± 0,002 µm D50 = 1,923 µm ± 0,012 µm D90 = 5,910 µm ± 0,052 µm

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 extreme temperatures. Protect from frost, heat and sunlight. Avoid formation of aerosol.
Incompatible materials	:	Avoid strong acids, bases, and oxidizers.
Hazardous decomposition products	:	Stable under recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Based on available data, the classification criteria are not met.

Product:

Acute oral toxicity : LD50 (Rat, female): > 2.000 mg/kg
Method: OECD Test Guideline 423
GLP: yes

Acute inhalation toxicity : LC50 (Rat, male and female): > 2,19 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Highest attainable concentration.
no mortality

Acute dermal toxicity : LD50 (Rat, female): > 2.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes

Components:

Cyantraniliprole:

Acute oral toxicity : LD50 (Mouse, female): > 5.000 mg/kg
Method: OECD Test Guideline 425
GLP: yes
Assessment: The substance or mixture has no acute oral toxicity
Remarks: no mortality

LD50 (Rat, female): > 5.000 mg/kg
Method: OECD Test Guideline 425
GLP: yes
Assessment: The substance or mixture has no acute oral toxicity
Remarks: no mortality

Acute inhalation toxicity : LC50 (Rat, male and female): > 5,2 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: no mortality

Acute dermal toxicity : LD50 (Rat, male and female): > 5.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: no mortality

flonicamid (ISO):

Acute oral toxicity : LD50 (Rat, male): 884 mg/kg

LD50 (Rat, female): 1.768 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 4,9 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Product:

Species	:	Rabbit
Assessment	:	Not classified as irritant
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
GLP	:	yes

Components:

Cyantraniliprole:

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

flonicamid (ISO):

Species	:	Rabbit
Result	:	No skin irritation

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Product:

Species	:	Rabbit
Result	:	No eye irritation
Assessment	:	Not classified as irritant
Method	:	OECD Test Guideline 405
GLP	:	yes

Components:

Cyantraniliprole:

Species	:	Rabbit
Result	:	slight irritation
Assessment	:	Not classified as irritant
Method	:	OECD Test Guideline 405
GLP	:	yes

flonicamid (ISO):

Species	:	Rabbit
Result	:	No eye irritation

Respiratory or skin sensitization

Skin sensitization

Based on available data, the classification criteria are not met.

Respiratory sensitization

Based on available data, the classification criteria are not met.

Product:

Test Type	:	Local lymph node assay (LLNA)
Species	:	mice
Assessment	:	Does not cause skin sensitization.
Method	:	OECD Test Guideline 429
Result	:	Not a skin sensitizer.

Components:

Cyantraniliprole:

Test Type	:	Local lymph node test
Routes of exposure	:	Dermal
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	Does not cause skin sensitization.
GLP	:	yes

Test Type	:	Maximization Test
Routes of exposure	:	Dermal
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitization.
GLP	:	yes

Test Type	:	Buehler Test
Routes of exposure	:	Dermal
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitization.
GLP	:	yes

flonicamid (ISO):

Test Type	:	Buehler Test
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Not a skin sensitizer.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Components:

Cyantraniliprole:

Genotoxicity in vitro	:	Test Type: reverse mutation assay Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: reverse mutation assay Test system: Escherichia coli Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: Chromosome aberration test in vitro Test system: Human lymphocytes Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse Application Route: Oral Method: OECD Test Guideline 474 Result: negative GLP: yes
Germ cell mutagenicity - Assessment	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

flonicamid (ISO):

Genotoxicity in vitro	:	Test Type: Ames test Result: negative

Carcinogenicity

Based on available data, the classification criteria are not met.

Components:

Cyantraniliprole:

Species	:	Rat, male
Application Route	:	Ingestion
Exposure time	:	2 Years

NOAEL	:	200 ppm
Method	:	OECD Test Guideline 453
Result	:	negative
Species	:	Rat, female
Application Route	:	Ingestion
Exposure time	:	2 Years
NOAEL	:	2.000 ppm
Method	:	OECD Test Guideline 453
Result	:	negative
Species	:	Mouse, male and female
Application Route	:	Ingestion
Exposure time	:	18 month(s)
NOAEL	:	7.000 ppm
Method	:	OECD Test Guideline 451
Result	:	negative
Carcinogenicity - Assessment	:	Weight of evidence does not support classification as a carcinogen

flonicamid (ISO):

Species	:	Mouse, male
Application Route	:	Oral
Exposure time	:	78 weeks
NOAEL	:	10 mg/kg bw/day
Method	:	OPPTS 870.4200
Result	:	positive
Species	:	Mouse, female
Application Route	:	Oral
Exposure time	:	78 weeks
NOAEL	:	11,8 mg/kg bw/day
Method	:	OPPTS 870.4200
Result	:	negative
Species	:	Rat
Application Route	:	Oral
Exposure time	:	104 weeks
Result	:	positive
Carcinogenicity - Assessment	:	Not classifiable as a human carcinogen.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Components:

Cyantraniliprole:

Effects on fetal development	:	Test Type: Pre-natal Species: Rat Application Route: Oral

General Toxicity Maternal: NOAEL: 1.000 mg/kg bw/day
Embryo-fetal toxicity.: NOAEL: 1.000 mg/kg bw/day
Method: OECD Test Guideline 414
Result: negative

Test Type: Pre-natal
Species: Rabbit
Application Route: Oral
General Toxicity Maternal: NOAEL: 25 mg/kg bw/day
Embryo-fetal toxicity.: NOAEL: 100 mg/kg bw/day
Symptoms: Maternal effects.
Method: OECD Test Guideline 414
Result: negative

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

flonicamid (ISO):

Effects on fertility : Test Type: Multi-generation study
Species: Rat
General Toxicity Parent: NOAEL: 18 mg/kg bw/day
Fertility: NOAEL: 109 mg/kg bw/day
Symptoms: No effects on fertility.

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rabbit
General Toxicity Maternal: NOAEL: 7,5 mg/kg bw/day
Embryo-fetal toxicity.: NOAEL: 2,5 mg/kg bw/day
Result: positive
Remarks: Not classified due to data which are conclusive although insufficient for classification.

STOT-single exposure

Based on available data, the classification criteria are not met.

Components:

Cyantraniliprole:

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

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Components:

Cyantraniliprole:

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

flonicamid (ISO):

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

Cyantraniliprole:

Species	:	Rat
NOAEL	:	> 1.000 mg/kg
Application Route	:	Oral
Exposure time	:	28 Days
Method	:	OECD Test Guideline 407
Symptoms	:	increased liver weight
Remarks	:	Based on available data, the classification criteria are not met.

Species	:	Rat, male and female
NOAEL	:	6,9 - 168 mg/kg bw/day
Application Route	:	Ingestion
Exposure time	:	90 Days
Method	:	OPPTS 870.3100
Remarks	:	Effects are of limited toxicological significance.

Species	:	Mouse, male and female
NOAEL	:	1091,8 mg/kg bw/day
Application Route	:	Ingestion
Exposure time	:	90 Days
Method	:	OPPTS 870.3100
Remarks	:	Effects are of limited toxicological significance.

Species	:	Dog, male and female
NOAEL	:	3,08 - 3,48 mg/kg bw/day
Application Route	:	Ingestion
Exposure time	:	90 Days
Method	:	OPPTS 870.3150
Remarks	:	Effects are of limited toxicological significance.

Species	:	Rat, male and female
NOAEL	:	8,3 - 106,6 mg/kg bw/day
Application Route	:	Ingestion
Exposure time	:	2 yr
Method	:	OPPTS 870.4300
Remarks	:	Effects are of limited toxicological significance.

Species	:	Mouse, male and female
NOAEL	:	768,8 - 903,8 mg/kg bw/day
Application Route	:	Ingestion
Exposure time	:	18 Months
Method	:	OPPTS 870.4200
Remarks	:	Effects are of limited toxicological significance.

Species	:	Dog, male and female
NOAEL	:	5,67 - 6 mg/kg bw/day
Application Route	:	Ingestion
Exposure time	:	1 yr

Method	:	OPPTS 870.4100
Remarks	:	Effects are of limited toxicological significance.

Species	:	Rat, male and female
NOAEL	:	1000 mg/kg
Application Route	:	Dermal
Exposure time	:	28 Days
Method	:	OECD Test Guideline 410
GLP	:	yes
Symptoms	:	Irritation
Remarks	:	Effects are of limited toxicological significance.

flonicamid (ISO):

Species	:	Mouse, male
NOAEL	:	15.3 mg/kg bw/day
LOAEL	:	153.9 mg/kg bw/day
Application Route	:	Oral
Exposure time	:	90 day
Method	:	OECD Test Guideline 408
Target Organs	:	Liver
Remarks	:	Based on available data, the classification criteria are not met.

Species	:	Rat, male
NOAEL	:	60 mg/kg bw/day
LOAEL	:	119.4 mg/kg bw/day
Application Route	:	Oral
Exposure time	:	90 day
Method	:	OPPTS 870.3100
Target Organs	:	Kidney
Remarks	:	Based on available data, the classification criteria are not met.

Species	:	Dog, male and female
NOAEL	:	20 mg/kg bw/day
Application Route	:	Oral
Exposure time	:	90 day
Method	:	OECD Test Guideline 409

Aspiration toxicity

Based on available data, the classification criteria are not met.

Components:

Cyantraniliprole:

The substance does not have properties associated with aspiration hazard potential.

Neurological effects

Components:

Cyantraniliprole:

No neurotoxicity observed in animal studies.

flonicamid (ISO):

No neurotoxicity observed in animal studies.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish	:	LC50 (Cyprinus carpio (Carp)): 54,0 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 GLP: yes
Toxicity to soil dwelling organisms	:	NOEC (Eisenia fetida (earthworms)): 1.000 mg/kg Exposure time: 14 d Method: OECD Test Guideline 207 GLP: yes LC50 (Eisenia fetida (earthworms)): > 1.000 mg/kg Exposure time: 14 d Method: OECD Test Guideline 207 GLP: yes
Toxicity to terrestrial organisms	:	LD50 (Coturnix japonica (Japanese quail)): > 9.547 mg/kg Exposure time: 15 d End point: Acute oral toxicity Method: OECD Test Guideline 223 GLP: yes LD50 (Apis mellifera (bees)): 3,11 µg/bee Exposure time: 24 hrs End point: Acute oral toxicity Method: OECD Test Guideline 213 GLP: yes LD50 (Apis mellifera (bees)): 2,65 µg/bee Exposure time: 48 hrs End point: Acute oral toxicity Method: OECD Test Guideline 213 GLP: yes LD50 (Apis mellifera (bees)): 2,76 µg/bee Exposure time: 24 hrs End point: Acute contact toxicity Method: OECD Test Guideline 214 GLP: yes LD50 (Apis mellifera (bees)): 2,4 µg/bee Exposure time: 48 hrs End point: Acute contact toxicity Method: OECD Test Guideline 214 GLP: yes

Components:

Cyantraniliprole:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 12,6 mg/l Exposure time: 96 h Method: US EPA Test Guideline OPP 72-1 GLP: yes LC50 (Ictalurus punctatus (channel catfish)): > 10 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,0204 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): > 13 mg/l Exposure time: 72 h ErC50 (Lemna gibba (duckweed)): 0,278 mg/l Exposure time: 7 d EyC50 (Lemna gibba (duckweed)): 0,060 mg/l Exposure time: 7 d
M-Factor (Acute aquatic toxicity)	:	10
Toxicity to fish (Chronic toxicity)	:	NOEC (Cyprinodon variegatus (sheepshead minnow)): 2,9 mg/l Exposure time: 28 d NOEC (Oncorhynchus mykiss (rainbow trout)): 0,11 mg/l Exposure time: 21 d NOEC (Oncorhynchus mykiss (rainbow trout)): 1,01 mg/l Exposure time: 90 d Test Type: Early Life-Stage Method: US EPA Test Guideline OPP 72-4 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0,00656 mg/l End point: Growth Exposure time: 21 d Test Type: Static-Renewal Method: US EPA Test Guideline OPPTS 850.1300 GLP: yes LOEC (Daphnia magna (Water flea)): 0,00969 mg/l End point: Growth Exposure time: 21 d Test Type: Static-Renewal Method: US EPA Test Guideline OPPTS 850.1300 GLP: yes

NOEC (Daphnia magna (Water flea)): 0,00447 mg/l
Exposure time: 21 d

NOEC (Americamysis bahia (mysid shrimp)): 0,72 mg/l
End point: reproduction
Exposure time: 35 d
Test Type: flow-through test
Method: US EPA Test Guideline OPP 72-4
GLP: yes

M-Factor (Chronic aquatic toxicity) : 10

Toxicity to soil dwelling organisms : NOEC (Eisenia fetida (earthworms)): 1.000 mg/kg
Exposure time: 14 d
Method: OECD Test Guideline 222
GLP: yes

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 (Apis mellifera (bees)): > 0,0934 µg/bee
Exposure time: 72 h
End point: Acute contact toxicity
Method: OECD Test Guideline 214
GLP: yes

LD50 (Apis mellifera (bees)): > 0,1055 µg/bee
Exposure time: 48 h
End point: Acute oral toxicity
Method: OECD Test Guideline 213
GLP: yes

LD50 (Colinius virginianus): > 2.250 mg/kg
End point: Acute oral toxicity
Method: US EPA Test Guideline OPPTS 850.2100
GLP: yes

NOEC (Anas platyrhynchos (Mallard duck)): 1.000 ppm
End point: Reproduction Test
Method: OECD Test Guideline 206
GLP: yes

flonicamid (ISO):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Test Type: static test

LC50 (Lepomis macrochirus (Bluegill sunfish)): > 100 mg/l
Exposure time: 96 h
Test Type: static test

LC50 (Cyprinodon variegatus (sheepshead minnow)): > 120 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Test Type: static test

Toxicity to algae/aquatic plants : EC50 (algae): > 119 mg/l
End point: Growth inhibition
Exposure time: 96 h

EC50 (Lemna sp.): > 119 mg/l
Exposure time: 7 d
Test Type: static test

Toxicity to fish (Chronic toxicity) : NOEC (Fish): 10 mg/l
Exposure time: 21 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Crustaceans): 3,1 mg/l
Exposure time: 21 d

Toxicity to soil dwelling organisms : LC50 (worms): > 1.000 mg/kg

Toxicity to terrestrial organisms : LD50 (Colinus virginianus (Bobwhite quail)): > 2.000 mg/kg

LC50 (Colinus virginianus (Bobwhite quail)): > 5.000 mg/kg
Remarks: Dietary

LC50 (Anas platyrhynchos (Mallard duck)): > 5.000 mg/kg
Remarks: Dietary

LD50 (Anas platyrhynchos (Mallard duck)): 1.591 - 2.621 mg/kg

Persistence and degradability

Product:

Biodegradability : Remarks: No data is available on the product itself.

Components:

Cyantraniliprole:

Biodegradability : Remarks: Not readily biodegradable.

Stability in water	:	Degradation half life (DT50): 9,09 - 37,7 d Remarks: Fresh water Degradation half life (DT50): 76,6 - 119 d Remarks: Soil Degradation half life (DT50): 22,8 - 25,1 d Remarks: total system

flonicamid (ISO):

Biodegradability	:	Result: Readily biodegradable.
Stability in water	:	Remarks: resistant to hydrolysis

Bioaccumulative potential

Product:

Bioaccumulation	:	Remarks: No data is available on the product itself.

Components:

Cyantraniliprole:

Bioaccumulation	:	Species: Lepomis macrochirus (Bluegill sunfish) Bioconcentration factor (BCF): < 1 Remarks: Bioaccumulation is unlikely.
Partition coefficient: n-octanol/water	:	log Pow: 1,97 (22 °C) pH: 4 log Pow: 2,07 (22 °C) pH: 7 log Pow: 1,74 (22 °C) pH: 9

flonicamid (ISO):

Partition coefficient: n-octanol/water	:	log Pow: 0,3

Mobility in soil

Product:

Distribution among environmental compartments	:	Remarks: No data is available on the product itself.

Components:

Cyantraniliprole:

Distribution among environmental compartments	:	Koc: 241 ml/g, log Koc: 2,38 Kd: 3,73 ml/g

Remarks: Mobile in soils

flonicamid (ISO):

Distribution among environmental compartments : Remarks: Highly mobile in soils

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

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.

Contaminated packaging : Empty remaining contents.
Do not re-use empty containers.
Packaging that is not properly emptied must be disposed of as the unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

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

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.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Minister of Industry Regulation No. 23/M-IND/PER/4/2013 concerning the Revision of Minister of Industry Regulation No. 87/M-IND/PER/9/2009 concerning Globally Harmonized System of Classification and Labelling of Chemicals.

Regulation of the Minister of Health No. 472 of 1996 on the Safeguarding of Substances Hazardous to Health

Hazardous substances that must be registered	:	Not applicable

Government Regulation No. 74 of 2001 on the Management of Hazardous and Toxic Substances

Hazardous substances approved for use	:	glycerol
Prohibited substances	:	Not applicable
Restricted substances	:	Not applicable

Regulation of the Ministry of Trade No. 7 of 2022 on Distribution and Control of Hazardous Materials

Type of hazardous materials subject to distribution and control, Annex I	:	Not applicable
Type of hazardous materials subject to distribution and control, Annex II	:	Not applicable

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

TCSI	:	On the inventory, or 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. Cyantraniliprole flonicamid (ISO) 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
NZIoC	:	Not in compliance with the inventory
TECI	:	Not in compliance with the inventory

16. OTHER INFORMATION

Revision Date	:	2025/08/13
Date format	:	yyyy/mm/dd

Full text of other abbreviations

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

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