

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



DAUNTLESS™

Version	Revision Date:	SDS Number:	Date of last issue: 06/27/2023
1.2	03/14/2025	50000911	Date of first issue: 02/01/2018

SECTION 1. IDENTIFICATION

Product identifier

Product name DAUNTLESS™

Other means of identification

Product code 50000911

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

Manufacturer FMC Corporation
2929 WALNUT ST
PHILADELPHIA PA 19104
USA
(215) 299-6000
SDS-Info@fmc.com

Supplier Address FMC Corporation
2929 Walnut Street
Philadelphia PA 19104
USA

Emergency telephone

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

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

SECTION 2. HAZARDS IDENTIFICATION

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

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

Very toxic to aquatic life with long lasting effects.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Chlorantraniliprole	500008-45-7	35
kaolin	1332-58-7	>= 5 - < 10

SECTION 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 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.
If symptoms persist, call a physician.
Do not induce vomiting without medical advice.
- Most important symptoms and effects, both acute and delayed : None known.
- Protection of first-aiders : Avoid inhalation, ingestion and contact with skin and eyes.
- Notes to physician : Treat symptomatically.
Immediate medical attention is required in case of ingestion.

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SECTION 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.
Nitrogen oxides (NO_x)
Carbon oxides
Hydrogen chloride
Sulfur oxides
Bromine compounds
Chlorine compounds
- Specific extinguishing methods : Remove undamaged containers from fire area if it is safe to do so.
Use a water spray to cool fully closed containers.
- Further information : 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.
- Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for fire-fighters : Firefighters should wear protective clothing and self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Keep people away from and upwind of spill/leak.
Remove all sources of ignition.
Immediately evacuate personnel to safe areas.
Ensure adequate ventilation.
Avoid dust formation.
If it can be safely done, stop the leak.
Do not touch or walk through the spilled material.
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

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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 : Collect as much of the spill as possible with a suitable absorbent material.
Pick up and transfer to properly labeled containers.
Never return spills in original containers for re-use.

Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Provide appropriate exhaust ventilation at places where dust is formed.

Normal measures for preventive fire protection.

Advice on safe handling : For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.
Avoid formation of respirable particles.

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. 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.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

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Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
kaolin	1332-58-7	TWA (Respirable particulate matter)	2 mg/m3	ACGIH
		TWA (Respirable)	5 mg/m3	NIOSH REL
		TWA (total)	10 mg/m3	NIOSH REL
		TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (Total dust)	10 mg/m3	OSHA P0
		TWA (respirable dust fraction)	5 mg/m3	OSHA P0

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

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

: Dust impervious protective suit
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.

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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 : General industrial hygiene practice.
Avoid contact with skin, eyes and clothing.
Provide adequate ventilation.
Do not breathe dust or spray mist.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: solid
Form	: granular
Color	: light brown
Odor	: slight, sweet
Odor Threshold	: No data available
pH	: 9.4 (77 °F / 25 °C) Concentration: 50 g/l (as aqueous dispersion)
Melting point/ range	: Not available for this mixture.
Boiling point/boiling range	: Not applicable
Flash point	: not determined
Evaporation rate	: Not applicable
Flammability (solid, gas)	: Not expected to be ignitable
Self-ignition	: > 311 °F / > 155 °C
Upper explosion limit / Upper flammability limit	: Not available for this mixture.
Lower explosion limit / Lower flammability limit	: No data available

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Vapor pressure	: No data available
Relative vapor density	: Not applicable
Relative density	: No data available
Density	: No data available
Bulk density	: 0.7 - 0.86 g/cm ³ 695 kg/m ³ loose
Partition coefficient: n-octanol/water	: Not applicable
Autoignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: Non-oxidizing
Particle size	: not determined

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 used as directed. Dust may form explosive mixture in air.
Conditions to avoid	: Avoid dust formation. Avoid extreme temperatures. Heat, flames and sparks.
Incompatible materials	: Avoid strong acids, bases, and oxidizers.
Hazardous decomposition products	: Sulfur oxides Halogenated compounds Nitrogen oxides (NO _x) Carbon oxides

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SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

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

Product:

Acute oral toxicity	: LD50 (Rat, female): > 5,000 mg/kg Method: OECD Test Guideline 425 GLP: yes
Acute inhalation toxicity	: LC50 (Rat): > 6.2 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): > 5,000 mg/kg Method: OECD Test Guideline 402 GLP: yes

Components:

Chlorantraniliprole:

Acute oral toxicity	: LD50 (Rat, female): > 5,000 mg/kg Method: OECD Test Guideline 425 GLP: yes LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 425 GLP: yes Remarks: Information source: Internal study report LD50 (Mouse, female): > 2,000 mg/kg Method: OECD Test Guideline 425 GLP: no
Acute inhalation toxicity	: LC50 (Rat, male and female): > 5.1 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: Information source: Internal study report LC50 (Rat, male and female): > 5.1 mg/l Exposure time: 4 h

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Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: no mortality

LC50 (Rat, male and female): > 5.0 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: GB 15670-1995
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
Remarks: Information source: Internal study report

LD50 (Rat, male and female): > 5,000 mg/kg
Method: GB 15670-1995
GLP: yes
Remarks: no mortality

LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Remarks: no mortality

kaolin:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

LD50: > 2,000 mg/kg
Method: OECD Test Guideline 420
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50: 5.07 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 436

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

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

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Skin corrosion/irritation

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

Product:

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

Components:

Chlorantraniliprole:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
GLP	:	yes
Remarks	:	Information source: Internal study report

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

Species	:	Rabbit
Method	:	GB 15670-1995
Result	:	No skin irritation
GLP	:	yes

kaolin:

Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Serious eye damage/eye irritation

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

Product:

Species	:	Rabbit
Result	:	slight irritation
Method	:	OECD Test Guideline 405
GLP	:	yes
Remarks	:	Minimal effects that do not meet the threshold for classification.

Components:

Chlorantraniliprole:

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

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Remarks : Information source: Internal study report

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

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

kaolin:

Result : No eye irritation
Method : OECD Test Guideline 405

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 test
Species : Mouse
Method : OECD Test Guideline 406
Result : Animal test did not cause sensitization by skin contact.

Components:

Chlorantraniliprole:

Test Type : Maximization Test
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Does not cause skin sensitization.
GLP : yes
Remarks : Information source: Internal study report

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

kaolin:

Method : OECD Test Guideline 429
Result : Does not cause skin sensitization.

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Germ cell mutagenicity

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

Components:

Chlorantraniliprole:

Genotoxicity in vitro	:	Test Type: reverse mutation assay Metabolic activation: with and without metabolic activation Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster ovary cells Method: OECD Test Guideline 476 Result: negative
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse Method: OECD Test Guideline 474 Result: negative
Germ cell mutagenicity - Assessment	:	Weight of evidence does not support classification as a germ cell mutagen.

kaolin:

Genotoxicity in vitro	:	Test Type: Ames test Method: OECD Test Guideline 471 Result: negative
Genotoxicity in vivo	:	Remarks: No data available

Carcinogenicity

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

Components:

Chlorantraniliprole:

Species	:	Rat, male and female
Application Route	:	Oral
Exposure time	:	2 Years
NOAEL	:	805 - 1,076 mg/kg bw/day
Method	:	OECD Test Guideline 453
Result	:	negative
Species	:	Mouse, male and female
Application Route	:	Oral
Exposure time	:	18 month(s)
NOAEL	:	158 - 1,155 mg/kg bw/day
Method	:	OECD Test Guideline 453
Result	:	negative
Carcinogenicity - Assessment	:	Animal testing did not show any carcinogenic effects.

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IARC	Group 1: Carcinogenic to humans kaolin (Silica dust, crystalline)	1332-58-7
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	Known to be human carcinogen kaolin (Silica, Crystalline (Respirable Size))	1332-58-7

Reproductive toxicity

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

Components:

Chlorantraniliprole:

Effects on fertility	: Test Type: Two-generation study Species: Rat, male and female Application Route: Oral General Toxicity Parent: NOAEL: 20,000 ppm General Toxicity F1: NOAEL: 20,000 ppm Method: OECD Test Guideline 416 Result: negative
Effects on fetal development	: Test Type: Pre-natal Species: Rat Application Route: Oral Duration of Single Treatment: 6 - 20 Days General Toxicity Maternal: NOEL: 1,000 mg/kg bw/day Developmental Toxicity: NOEL: 1,000 mg/kg bw/day Method: OECD Test Guideline 414 Result: negative
Reproductive toxicity - Assessment	: Weight of evidence does not support classification for reproductive toxicity

kaolin:

Effects on fertility	: Remarks: No data available
Effects on fetal development	: Remarks: No data available

STOT-single exposure

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

Components:

Chlorantraniliprole:

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

Remarks : No significant adverse effects were reported

STOT-repeated exposure

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

Product:

Remarks : Refer to acute toxicity and/or repeated dose toxicity data for more information on target organs if applicable.

Components:

Chlorantraniliprole:

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

kaolin:

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

Repeated dose toxicity

Components:

Chlorantraniliprole:

Species : Rat, male and female
NOEL : 1188 - 1526 mg/kg
Application Route : Oral
Exposure time : 90 Days
Method : OECD Test Guideline 408

kaolin:

Remarks : No data available

Aspiration toxicity

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

Components:

Chlorantraniliprole:

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

Further information

Product:

Remarks : No data available

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Components:

Chlorantraniliprole:

Remarks : Information presented in this Section conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): > 3.2 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 0.029 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	: EbC50 (Pseudokirchneriella subcapitata (green algae)): > 5.0 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia magna (Water flea)): 0.00447 mg/l Exposure time: 21 d Remarks: Information refers to the main ingredient.
Toxicity to soil dwelling organisms	: (Eisenia fetida (earthworms)): > 1,000 mg/kg Exposure time: 14 d Method: OECD Test Guideline 207
Toxicity to terrestrial organisms	: LD50 (Colinus virginianus (Bobwhite quail)): > 2,250 mg/kg Exposure time: 14 d Method: US EPA Test Guideline OPPTS 850.2100 LD50 (Apis mellifera (bees)): 285.7 µg/bee Exposure time: 48 h End point: Acute contact toxicity Method: OECD Test Guideline 214 GLP: yes

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Components:

Chlorantraniliprole:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 13.8 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
Remarks: Information source: Internal study report

LC50 (Lepomis macrochirus (Bluegill sunfish)): > 15.1 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes
Remarks: Information source: Internal study report

LC50 (Cyprinodon sp. (minnow)): > 12 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.0116 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

LC50 (Hyalella azteca (Amphipod)): 0.26 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

LC50 (Ceriodaphnia dubia (water flea)): 0.0067 - 0.011 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 2 mg/l
Exposure time: 120 h

NOEC (Lemna gibba (duckweed)): > 2 mg/l
End point: Biomass
Exposure time: 14 d
Test Type: static test

ErC50 (Selenastrum capricornutum (green algae)): > 2 mg/l
Exposure time: 72 h

NOEC (Anabaena flos-aquae (cyanobacterium)): > 2 mg/l
End point: Growth rate
Exposure time: 120 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

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NOEC (*Skeletonema costatum* (Diatom)): > 14.6 mg/l
End point: Growth rate
Exposure time: 120 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

NOEC (*Navicula pelliculosa* (Diatom)): > 15.1 mg/l
End point: Growth rate
Exposure time: 120 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

Toxicity to fish (Chronic toxicity) : NOEC (*Cyprinodon variegatus* (sheepshead minnow)): 1.28 mg/l
Exposure time: 36 d

NOEC (*Oncorhynchus mykiss* (rainbow trout)): 0.110 mg/l
Exposure time: 28 d
Method: OECD Test Guideline 210
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (*Daphnia magna* (Water flea)): 0.00447 mg/l
Exposure time: 21 d
Method: US EPA Test Guideline OPPTS 850.1300
GLP: yes

Toxicity to soil dwelling organisms : LC50 (*Eisenia fetida* (earthworms)): > 1,000 mg/kg
Exposure time: 14 d
Method: OECD Test Guideline 207
GLP: yes

Remarks: No significant adverse effect on Nitrogen mineralization.
No significant adverse effect on Carbon mineralization.

NOEC (*Hypoaspis aculeifer*): 100 mg/kg dry weight (d.w.)
Exposure time: 16 d
Method: OECD Test Guideline 207

EC50 (*Hypoaspis aculeifer*): >100 mg/kg dry weight (d.w.)
Exposure time: 16 d
Method: OECD Test Guideline 207

Toxicity to terrestrial organisms : LD50 (*Apis mellifera* (bees)): > 4.0 µg/bee
Exposure time: 72 h
End point: Acute contact toxicity
Remarks: Active substance dissolved in acetone

LD50 (*Apis mellifera* (bees)): > 0.005 µg/bee
Exposure time: 48 h

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End point: Acute contact toxicity
Remarks: Active substance dissolved in water

LD50 (Apis mellifera (bees)): > 104.1 µg/bee
Exposure time: 48 h
End point: Acute oral toxicity
Remarks: Active substance dissolved in acetone

LD50 (Apis mellifera (bees)): > 0.0274 µg/bee
Exposure time: 48 h
End point: Acute oral toxicity
Remarks: Active substance dissolved in water

LD50 (Poephila guttata (zebra finch)): > 2,250 mg/kg

kaolin:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Raphidocelis subcapitata (freshwater green alga)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

Persistence and degradability

Components:

Chlorantraniliprole:

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life (DT50): 10 d (25 °C) pH: 9

Degradation half life (DT50): 0.3 d (50 °C) pH: 9

Degradation half life (DT50): > 31 d pH: 5

kaolin:

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

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Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Does not bioaccumulate.
Estimation based on data obtained on active ingredient.

Components:

Chlorantraniliprole:

Bioaccumulation : Species: *Lepomis macrochirus* (Bluegill sunfish)
Bioconcentration factor (BCF): 14
Method: OECD Test Guideline 305
GLP: yes
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 2.77 (68 °F / 20 °C)
pH: 4

log Pow: 2.86 (68 °F / 20 °C)
pH: 7

log Pow: 2.80 (68 °F / 20 °C)
pH: 9

kaolin:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : Remarks: Not applicable

Mobility in soil

Components:

Chlorantraniliprole:

Distribution among environmental compartments : Koc: 362 ml/g, log Koc: 2.55
Remarks: Mobile in soils

Stability in soil : Remarks: Very persistent in soil.

kaolin:

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

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Pro-

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tection 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 : Environmental hazards
Do not apply directly to water.
Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.
See product label for additional application instructions relating to environmental precautions.

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

Components:

Chlorantraniliprole:

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.

SECTION 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.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Chlorantraniliprole)

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Class : 9
Subsidiary risk : ENVIRONM.
Packing group : III
Labels : 9 (ENVIRONM.)
Environmentally hazardous : yes

IATA-DGR

UN/ID No. : UN 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
(Chlorantraniliprole)

Class : 9
Packing group : III
Labels : Miscellaneous
Packing instruction (cargo aircraft) : 956
Packing instruction (passenger aircraft) : 956
Environmentally hazardous : yes

IMDG-Code

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S.
(Chlorantraniliprole)

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

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

Not applicable for product as supplied.

Domestic regulation

49 CFR Road

Not regulated as a dangerous good

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 : 49CFR: no dangerous good in non-bulk packaging

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

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

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SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

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

SARA 311/312 Hazards : Carcinogenicity

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

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

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

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

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

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

kaolin	1332-58-7
Quartz (SiO ₂)	14808-60-7

Pennsylvania Right To Know

D-Glucose, 4-O-β-D-galactopyranosyl-, monohydrate	64044-51-5
Chlorantraniliprole	500008-45-7
kaolin	1332-58-7
sodium sulphate	7757-82-6

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

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California Prop. 65

WARNING: This product can expose you to chemicals including kaolin, titanium dioxide, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California Permissible Exposure Limits for Chemical Contaminants

kaolin	1332-58-7
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California Regulated Carcinogens

kaolin	1332-58-7
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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 chemical substance(s) exempt from CEPA DSL Inventory requirements. It is regulated as a pesticide subject to Pest Control Products Act (PCPA) requirements. Read the PCPA label, authorized under the Pest Control Products Act, prior to using or handling this pest control product.
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.

FIFRA information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

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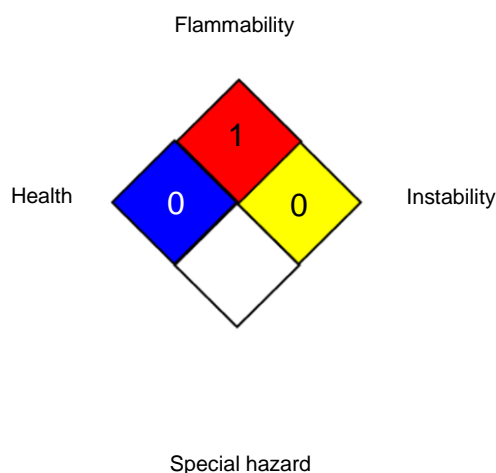
CAUTION

Avoid contact with skin, eyes and clothing., Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals., Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet., Remove and wash contaminated clothing before reuse., This product is toxic to aquatic invertebrates.

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	*	0
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

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average

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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