according to the Hazardous Products Regulations



### GR1™ Herbicide

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### **SECTION 1. IDENTIFICATION**

**Product identifier** 

Product name GR1™ Herbicide

Other means of identification

Product code 50000103

Recommended use of the chemical and restrictions on use

Recommended use Herbicide

**Restrictions on use**Use as recommended by the label.

Details of the supplier of the safety data sheet

<u>Manufacturer</u> FMC Corporation

2929 WALNUT ST

PHILADELPHIA PA 19104

USA

Phone (AgHotline): 1-833-FMC-PPAC (1-833-362-7722),

Web: https://ag.fmc.com/ca/en

SDS-Info@fmc.com

<u>Supplier Address</u> FMC of Canada Limited

6755 Mississauga Road, Suite 204

Mississauga, ON L5N 7Y2

Canada

**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 Hazardous Products Regulations

Skin sensitization : Sub-category 1B

**GHS** label elements

according to the Hazardous Products Regulations



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Hazard pictograms :

**!**>

Signal Word : Warning

Hazard Statements : H317 May cause an allergic skin reaction.

Precautionary Statements : P261 Avoid breathing dust.

P272 Contaminated work clothing should not be allowed out of

the workplace.

P280 Wear protective gloves.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water and soap. P333 + P313 If skin irritation or rash occurs: Get medical advice/

attention.

P363 Wash contaminated clothing before reuse.

Disposal:

P501 Dispose of contents/ container to an approved waste dis-

posal plant.

### Other hazards

None known.

## **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

## Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
pyroxsulam (ISO)	pyroxsulam (ISO)	422556-08-9	13.13
Cloquintocet-mexyl	Cloquintocet- mexyl	99607-70-2	13.13
kaolin	kaolin	1332-58-7	>= 20 - < 25
quinclorac (ISO)	quinclorac (ISO)	84087-01-4	>= 10 - <= 20
citric acid	citric acid	77-92-9	>= 3 - <= 10
sodium 2- [methyloleoylamino]eth ane-1-sulphonate	sodium 2- [methyloleoylam ino]ethane-1- sulphonate	137-20-2	>= 1 - <= 3
titanium dioxide; [in powder form containing 1 % or more of parti- cles with aerodynamic diameter ≤ 10 µm]	titanium dioxide; [in powder form containing 1 % or more of parti- cles with aero- dynamic diame- ter ≤ 10 µm]	13463-67-7	>= 1 - <= 3
Quartz (SiO2)	quartz (SiO2)	14808-60-7	>= 0.3 - < 1

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**SECTION 4. FIRST AID MEASURES** 

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

If inhaled : Move to fresh air.

If not breathing, give artificial respiration.

Call a physician or poison control center immediately.

In case of skin contact : Take off all contaminated clothing immediately.

Wash off immediately with plenty of water for at least 15

minutes.

Call a physician if irritation develops or persists.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,

for at least 15 minutes. Remove contact lenses. Seek medical advice.

If swallowed : If symptoms persist, call a physician or Poison Control Center

immediately.

Give small amounts of water to drink.

DO NOT induce vomiting unless directed to do so by a physi-

cian or poison control center.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and

delayed

May cause an allergic skin reaction.

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 : A specific antidote for exposure to this material is not known.

Gastric lavage and/or administration of activated charcoal can be considered. After decontamination, treatment of exposure is as for a general chemical and should be directed at the

control of symptoms and the clinical condition.

Treat symptomatically.

Show this safety data sheet or product label to your doctor.

**SECTION 5. FIRE-FIGHTING MEASURES** 

Suitable extinguishing media : Water spray, fog, or regular foam.

Unsuitable extinguishing

media

Dry chemical

Specific hazards during fire

fighting

Do not allow run-off from fire fighting to enter drains or water

courses.

according to the Hazardous Products Regulations



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Hazardous combustion prod-

ucts

hydrogen sulphide Hydrogen fluoride Hydrogen cyanide Hydrogen chloride

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

Special protective equipment:

for fire-fighters

Firefighters should wear protective clothing and self-contained

breathing apparatus.

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protec: :

tive equipment and emergency procedures

Use personal protective equipment.

Avoid dust formation. Avoid breathing dust.

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.

For disposal considerations see section 13.

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

Pick up and transfer to properly labeled containers without

creating dust.

Keep in suitable, closed containers for disposal.

### **SECTION 7. HANDLING AND STORAGE**

Advice on protection against :

fire and explosion

Avoid dust formation.

Provide appropriate exhaust ventilation at places where dust

is formed.

Advice on safe handling : Avoid formation of respirable particles.

Do not breathe vapors/dust.

Avoid exposure - obtain special instructions before use.

Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national

regulations.

according to the Hazardous Products Regulations



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Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being

used.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated

place.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage. Observe label precautions.

Store in accordance with the particular national regulations.

Further information on stor-

age stability

No decomposition if stored and applied as directed.

#### **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
kaolin	1332-58-7	TWA (Res- pirable)	2 mg/m3	CA AB OEL
		TWA (Res- pirable)	2 mg/m3	CA BC OEL
		TWAEV (respirable dust)	2 mg/m3	CA QC OEL
		TWA (Respirable particulate matter)	2 mg/m3	ACGIH
Quartz (SiO2)	14808-60-7	TWA (Res- pirable par- ticulates)	0.025 mg/m3	CA AB OEL
		TWA (Respirable fraction)	0.1 mg/m3	CA ON OEL
		TWAEV (respirable dust)	0.1 mg/m3	CA QC OEL
		TWA (Respirable)	0.025 mg/m3 (Silica)	CA BC OEL
		TWA (Respirable particulate matter)	0.025 mg/m3 (Silica)	ACGIH

### Personal protective equipment

Respiratory protection : In case of dust exposure wear suitable personal respiratory

protection and protective suit.

according to the Hazardous Products Regulations



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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 in-

structions.

Ensure that eye flushing systems and safety showers are

located close to the working place. Wear suitable protective equipment.

In the context of professional plant protection use as recommended, the end user must refer to the label and the instruc-

tions for use.

Hygiene measures : When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state : solid

Form : solid

Color : tan

Odor : sweet

Odor Threshold : No data available

pH : 5.17 (24 °C)

(1% solution in water)

Melting point : No data available

Boiling point/boiling range : No data available

according to the Hazardous Products Regulations



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Flash point : Method: closed cup

Evaporation rate : Not available for this mixture.

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 : No data available

Density : 0.43 g/cm3 (23.2 °C)

Bulk density : 0.43 g/cm3 (23.2 °C)

loose

Solubility(ies)

Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

#### **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 reac-

tions

None reasonably foreseeable.

No decomposition if stored and applied as directed.

according to the Hazardous Products Regulations



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Conditions to avoid : Avoid extreme temperatures.

Heat, flames and sparks.

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

Hazardous decomposition

products

Carbon oxides

#### **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

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Calculation method

Acute dermal toxicity : LD50 (Rabbit, male and female): > 5,000 mg/kg

**Components:** 

pyroxsulam (ISO):

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

Acute inhalation toxicity : LC0 (Rat): > 5.12 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Remarks: no mortality

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Cloquintocet-mexyl:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat, male and female): > 0.935 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Assessment: The component/mixture is moderately toxic after

short term inhalation.

Acute dermal toxicity : LD50 Dermal (Rat, male and female): > 2,000 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

according to the Hazardous Products Regulations



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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 tox-

icity

Acute inhalation toxicity : LD50: 5.07 mg/l

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

quinclorac (ISO):

Acute oral toxicity : LD50: 2,680 mg/kg

Acute inhalation toxicity : LC50: > 5.2 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity : LD50: > 2,000 mg/kg

citric acid:

Acute oral toxicity : LD50 (Mouse, male and female): 5,400 mg/kg

Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

sodium 2-[methyloleoylamino]ethane-1-sulphonate:

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

Method: OECD Test Guideline 401

Assessment: The substance or mixture has no acute oral tox-

icity

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Quartz (SiO2):

according to the Hazardous Products Regulations



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

Acute inhalation toxicity : LC50 (Rat): > 5.01 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 436

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: Based on data from similar materials

### Skin corrosion/irritation

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

**Product:** 

Assessment : Not classified as irritant

Remarks : No skin irritation

**Components:** 

pyroxsulam (ISO):

Result : slight irritation

Cloquintocet-mexyl:

Species : Rabbit

Assessment : No skin irritation

Method : OECD Test Guideline 404

Remarks : Minimal effects that do not meet the threshold for classifica-

tion.

kaolin:

Method : OECD Test Guideline 404

Result : No skin irritation

quinclorac (ISO):

Species : Rabbit Result : slight irritation

citric acid:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

sodium 2-[methyloleoylamino]ethane-1-sulphonate:

Species : Rabbit

according to the Hazardous Products Regulations



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Method : OECD Test Guideline 404

Result : No skin irritation

Quartz (SiO2):

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

Remarks : Based on data from similar materials

Serious eye damage/eye irritation

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

**Product:** 

Assessment : Not classified as irritant

Remarks : No eye irritation

**Components:** 

pyroxsulam (ISO):

Result : No eye irritation

Cloquintocet-mexyl:

Species : Rabbit

Assessment : No eye irritation

Method : OECD Test Guideline 405

Remarks : Minimal effects that do not meet the threshold for classifica-

tion.

kaolin:

Result : No eye irritation

Method : OECD Test Guideline 405

quinclorac (ISO):

Species : Rabbit

Result : slight irritation

citric acid:

Species : Rabbit

Result : Irritation to eyes, reversing within 21 days

Method : OECD Test Guideline 405

sodium 2-[methyloleoylamino]ethane-1-sulphonate:

Species : Rabbit

Result : Irritation to eyes, reversing within 7 days

Method : OECD Test Guideline 405

according to the Hazardous Products Regulations



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Quartz (SiO2):

Species : Rabbit

Result : No eye irritation

Method : OECD Test Guideline 405

Remarks : Based on data from similar materials

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

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

**Product:** 

Species : mice

Result : May cause sensitization by skin contact.
Remarks : May cause sensitization by skin contact.

**Components:** 

pyroxsulam (ISO):

Result : May cause sensitization by skin contact.

Cloquintocet-mexyl:

Species : Guinea pig

Method : OECD Test Guideline 429

Result : The product is a skin sensitizer, sub-category 1B.

kaolin:

Method : OECD Test Guideline 429

Result : Does not cause skin sensitization.

quinclorac (ISO):

Result : May cause sensitization by skin contact.

sodium 2-[methyloleoylamino]ethane-1-sulphonate:

Test Type : Maximization Test

Species : Guinea pig

Assessment : Does not cause skin sensitization.

Method : OECD Test Guideline 406

Result : negative

Quartz (SiO2):

Test Type : Local lymph node assay (LLNA)

Species : Mouse

Method : OECD Test Guideline 429

Result : Does not cause skin sensitization.
Remarks : Based on data from similar materials

according to the Hazardous Products Regulations



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#### Germ cell mutagenicity

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

### Components:

pyroxsulam (ISO):

Genotoxicity in vitro : Test Type: Ames test

Result: negative

Test Type: Micronucleus test

Test system: mouse lymphoma cells

Result: negative

Cloquintocet-mexyl:

Genotoxicity in vitro : Test Type: reverse mutation assay

Method: OECD Test Guideline 471

Result: negative

Test Type: gene mutation test

Test system: Chinese hamster lung cells Method: OECD Test Guideline 476

Result: negative

Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells

Method: OECD Test Guideline 473

Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Chinese hamster (male and female)

Application Route: Oral

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

citric acid:

Genotoxicity in vitro : Test Type: reverse mutation assay

Result: negative

Genotoxicity in vivo : Test Type: Cytogenetic assay

Species: Rat

according to the Hazardous Products Regulations



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**Application Route: Oral** 

Result: negative

sodium 2-[methyloleoylamino]ethane-1-sulphonate:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Result: negative

Test Type: Ames test

Method: OECD Test Guideline 471

Result: negative

Genotoxicity in vivo : Remarks: No data available

Quartz (SiO2):

Genotoxicity in vitro : Test Type: reverse mutation assay

Result: negative

Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Rat

Method: OECD Test Guideline 474

Result: negative

Remarks: Based on data from similar materials

Carcinogenicity

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

**Components:** 

pyroxsulam (ISO):

Species : Mouse, male

NOAEL : 100

Carcinogenicity - Assess-

ment

Weight of evidence does not support classification as a car-

cinogen

Cloquintocet-mexyl:

Species : Mouse, male

Application Route : Oral

Exposure time : 18 month(s)

Dose : 1.1, 11, 111, 583 mg/kg NOAEL : 111 mg/kg body weight

Result : negative

Carcinogenicity - Assess-

ment

Weight of evidence does not support classification as a car-

cinogen

quinclorac (ISO):

Carcinogenicity - Assess-

ment

: Weight of evidence does not support classification as a car-

cinogen

according to the Hazardous Products Regulations



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sodium 2-[methyloleoylamino]ethane-1-sulphonate:

Remarks : This information is not available.

Quartz (SiO2):

Carcinogenicity - Assess-

ment

Human carcinogen.

Reproductive toxicity

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

Components:

pyroxsulam (ISO):

Reproductive toxicity - As-

sessment

Weight of evidence does not support classification for repro-

ductive toxicity

Cloquintocet-mexyl:

Effects on fertility : General Toxicity F1: NOAEL: 420 mg/kg body weight

Fertility: NOAEL: 830 mg/kg body weight Method: OECD Test Guideline 416

Result: No effects on fertility and early embryonic develop-

ment were detected.

Effects on fetal development : Species: Rabbit

Application Route: Oral

Dose: 0, 10, 60, 300 mg/kg bw/d

General Toxicity Maternal: NOAEL: 60 mg/kg body weight

Teratogenicity: NOAEL: 300 mg/kg body weight

Developmental Toxicity: NOAEL: 60 mg/kg body weight

Method: OECD Test Guideline 414

Result: negative

Reproductive toxicity - As-

sessment

Weight of evidence does not support classification for repro-

ductive toxicity

kaolin:

Effects on fertility : Remarks: No data available

Effects on fetal development : Remarks: No data available

sodium 2-[methyloleoylamino]ethane-1-sulphonate:

Effects on fertility : Test Type: Fertility

Species: Rat, male and female

General Toxicity Parent: NOAEL: 1,000 mg/kg body weight

Method: OECD Test Guideline 421

Remarks: No data available

Effects on fetal development : Test Type: Pre-natal

Species: Rat

according to the Hazardous Products Regulations



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**Application Route: Oral** 

General Toxicity Maternal: NOAEL: 1,000 mg/kg body weight Embryo-fetal toxicity.: NOAEL: 1,000 mg/kg body weight

Method: OECD Test Guideline 414

Reproductive toxicity - As-

sessment

No evidence of adverse effects on sexual function and fertility,

or on development, based on animal experiments.

#### STOT-single exposure

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

#### Components:

Cloquintocet-mexyl:

Remarks : No significant adverse effects were reported

kaolin:

Remarks : No significant adverse effects were reported

citric acid:

Assessment : May cause respiratory irritation.

## 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:

pyroxsulam (ISO):

Target Organs : Liver

Assessment : May cause damage to organs through prolonged or repeated

exposure.

Cloquintocet-mexyl:

Target Organs : Bladder

Assessment : The substance or mixture is classified as specific target organ

toxicant, repeated exposure, category 2.

kaolin:

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

organ toxicant, repeated exposure.

Quartz (SiO2):

Routes of exposure : Inhalation Target Organs : Lungs

Assessment : The substance or mixture is classified as specific target organ

according to the Hazardous Products Regulations



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toxicant, repeated exposure, category 1.

Routes of exposure : Inhalation

Target Organs : Immune system, Kidney

Assessment : The substance or mixture is classified as specific target organ

toxicant, repeated exposure, category 2.

### Repeated dose toxicity

#### Components:

#### Cloquintocet-mexyl:

Species : Rat, male NOAEL : 3.77 mg/kg

Application Route : Oral Exposure time : 2 y

Dose : 0.37, 3.8, 38, 75 mg/kg
Method : OECD Test Guideline 451

Species : Rat, male and female NOAEL : 9.66 - 10.2 mg/kg

Application Route : Oral Exposure time : 90 d

Dose : 2.0, 9.7, 64, 384 mg/kg

Target Organs : Bladder

Species : Rat, male and female

NOAEL : 1,000 mg/kg Application Route : Skin contact

Exposure time : 28 d

Dose : 0, 50, 200 and 1000 mg/kg Method : OECD Test Guideline 410

kaolin:

Remarks : No data available

### sodium 2-[methyloleoylamino]ethane-1-sulphonate:

Species : Rat

NOAEL : 1,000 mg/kg

Application Route : Oral Exposure time : 28 d

Method : OECD Test Guideline 407

Quartz (SiO2):

Species : Rat

LOAEC : 0.0025 mg/l Application Route : Inhalation Exposure time : 90 day

Method : OECD Test Guideline 413

Target Organs : Lungs

Remarks : Based on data from similar materials

according to the Hazardous Products Regulations



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#### **Aspiration toxicity**

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

#### **Product:**

No aspiration toxicity classification

### **Components:**

### Cloquintocet-mexyl:

No aspiration toxicity classification

### **Further information**

**Product:** 

Remarks : No data available

### **SECTION 12. ECOLOGICAL INFORMATION**

### **Ecotoxicity**

**Product:** 

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other :

aquatic invertebrates

Remarks: No data available

Toxicity to algae/aquatic

plants

Remarks: No data available

### **Components:**

pyroxsulam (ISO):

Toxicity to fish : (Oncorhynchus mykiss (rainbow trout)): > 87 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

(Daphnia): > 100 mg/l Exposure time: 48 h

Toxicity to algae/aquatic

plants

EC50 (algae): 0.135 mg/l

Exposure time: 96 h

EC50 (Lemna gibba (gibbous duckweed)): 0.00257 mg/l

Exposure time: 7 d

Toxicity to fish (Chronic tox-

icity)

NOEC (Pimephales promelas (fathead minnow)): > 10.1 mg/l

Exposure time: 40 d

Cloquintocet-mexyl:

Toxicity to fish : LC50 (Salmo gairdneri): > 76 mg/l

according to the Hazardous Products Regulations



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Exposure time: 96 h

LC50 (Ictalurus punctatus (channel catfish)): 14 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h Test Type: static test

Toxicity to algae/aquatic

plants

EC50 (Desmodesmus subspicatus (green algae)): 0.63 mg/l

Exposure time: 96 h Test Type: static test

NOEC (Desmodesmus subspicatus (green algae)): 0.09 mg/l

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 32 mg/l

End point: reproduction Exposure time: 21 d

Method: OECD Test Guideline 211

Toxicity to microorganisms : EC50 (activated sludge): > 1,000 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

Toxicity to soil dwelling or-

ganisms

LC50 (Eisenia fetida (earthworms)): 1,000 mg/kg

Exposure time: 14 d

Method: OECD Test Guideline 207

Toxicity to terrestrial organ-

isms

LD50 (Colinus virginianus (Bobwhite quail)): > 2,000 mg/kg

NOEC (Colinus virginianus (Bobwhite quail)): 500 mg/kg

LD50 (Anas platyrhynchos (Mallard duck)): > 2,000 mg/kg

NOEC (Anas platyrhynchos (Mallard duck)): 500 mg/kg

LD50 (Apis mellifera (bees)): >100 ug/bee

Exposure time: 48 d

End point: Acute oral toxicity

LD50 (Apis mellifera (bees)): >100 ug/bee

Exposure time: 48 d

End point: Acute contact toxicity

kaolin:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

according to the Hazardous Products Regulations



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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 (Chron-

Remarks: No data available

ic toxicity)

Toxicity to microorganisms Remarks: No data available

quinclorac (ISO):

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l

> Exposure time: 96 h Test Type: semi-static test

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia): 113.14 mg/l

Exposure time: 48 h

LC50 (Mysidopsis bahia (opossum shrimp)): 0.069 mg/l

Exposure time: 96 h

citric acid:

LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l Toxicity to fish

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 1,535 mg/l

Exposure time: 24 h

sodium 2-[methyloleoylamino]ethane-1-sulphonate:

Toxicity to fish LC50 (Danio rerio (zebra fish)): 1.32 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 5.76 mg/l

NOEC (Daphnia magna (Water flea)): 2 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Desmodesmus subspicatus (green algae)): 117 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

Toxicity to microorganisms

Exposure time: 21 d Method: OECD Test Guideline 211

EC50 (activated sludge): > 1,000 mg/l

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according to the Hazardous Products Regulations



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Method: OECD Test Guideline 209

Quartz (SiO2):

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): > 10,000 mg/l

Exposure time: 72 h

Persistence and degradability

**Components:** 

pyroxsulam (ISO):

Biodegradability : Method: OECD Test Guideline 301B

Remarks: Not readily biodegradable.

Cloquintocet-mexyl:

Biodegradability : Result: Not readily biodegradable.

kaolin:

Biodegradability : Remarks: The methods for determining biodegradability are

not applicable to inorganic substances.

quinclorac (ISO):

Biodegradability : Biodegradation: 10 %

Exposure time: 28 d

citric acid:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 97 % Exposure time: 28 d

Method: OECD Test Guideline 301B

sodium 2-[methyloleoylamino]ethane-1-sulphonate:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 80 % Exposure time: 28 d

Method: OECD Test Guideline 301B

Quartz (SiO2):

Biodegradability : Result: Not biodegradable

**Bioaccumulative potential** 

**Components:** 

pyroxsulam (ISO):

Bioaccumulation : Remarks: Accumulation in aquatic organisms is expected.

Partition coefficient: n- : log Pow: -1.01

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octanol/water

Cloquintocet-mexyl:

Bioaccumulation : Species: Fish

Bioconcentration factor (BCF): 1,000 Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-

octanol/water

log Pow: 5.03 (25 °C)

kaolin:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-

octanol/water

Remarks: Not applicable

sodium 2-[methyloleoylamino]ethane-1-sulphonate:

Bioaccumulation : Species: Fish

Bioconcentration factor (BCF): 2.9 Remarks: Bioaccumulation is unlikely.

Partition coefficient: n- : log Pow: 1.36

octanol/water Method: OECD Test Guideline 117

Remarks: Not applicable

Quartz (SiO2):

Bioaccumulation : Remarks: Does not bioaccumulate.

Mobility in soil

**Components:** 

pyroxsulam (ISO):

Distribution among environ-

mental compartments

Koc: 33.2 ml/g, log Koc: 1.52 Remarks: Highly mobile in soils

Stability in soil

Cloquintocet-mexyl:

Distribution among environ-

mental compartments

Remarks: immobile

kaolin:

Distribution among environ-

mental compartments

Remarks: Low mobility in soil.

sodium 2-[methyloleoylamino]ethane-1-sulphonate:

Distribution among environ: Koc: 53.4 ml/g, log Koc: 1.72

according to the Hazardous Products Regulations



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mental compartments Remarks: Highly mobile in soils

#### Other adverse effects

#### **Product:**

Additional ecological infor-

mation

Environmental hazards

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water

mark.

Do not contaminate water when cleaning equipment or dis-

posing of equipment washwaters or rinsate.

See product label for additional application instructions relat-

ing 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.

#### **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 chemi-

cal or used container.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

### **SECTION 14. TRANSPORT INFORMATION**

### International Regulations

#### **UNRTDG**

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(Cloquintocet-mexyl, PYROXSULAM)

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.

(Cloquintocet-mexyl, PYROXSULAM)

Class : 9

according to the Hazardous Products Regulations



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Packing group : III

Labels : Miscellaneous

Packing instruction (cargo

aircraft)

: 956

Packing instruction (passen-:

ger aircraft)

956

Environmentally hazardous : yes

**IMDG-Code** 

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(Cloquintocet-mexyl, PYROXSULAM)

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**

**TDG** 

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

Class : 9
Packing group : III
Labels : 9
ERG Code : 171
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**

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

TCSI : Not in compliance with the inventory

TSCA : Product contains substance(s) not listed on TSCA inventory.

AIIC : Not in compliance with the inventory

DSL : This product contains the following components that are not

on the Canadian DSL nor NDSL.

Cloquintocet-mexyl

according to the Hazardous Products Regulations



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pyroxsulam (ISO)

**INERT INGREDIENTS (NULL)** 

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

#### **Canadian lists**

No substances are subject to a Significant New Activity Notification.

#### **SECTION 16. OTHER INFORMATION**

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

CA AB OEL : Canada. Alberta, Occupational Health and Safety Code (table

2: OEL)

CA BC OEL : Canada. British Columbia OEL

CA ON OEL : Ontario Table of Occupational Exposure Limits made under

the Occupational Health and Safety Act.

CA QC OEL : Québec. Regulation respecting occupational health and safe-

ty, Schedule 1, Part 1: Permissible exposure values for air-

borne contaminants

ACGIH / TWA : 8-hour, time-weighted average
CA AB OEL / TWA : 8-hour Occupational exposure limit
CA BC OEL / TWA : 8-hour time weighted average
CA ON OEL / TWA : Time-Weighted Average Limit (TWA)

CA ON OEL / TWA : Time-Weighted Average Limit (TWA)
CA QC OEL / TWAEV : Time-weighted average exposure value

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

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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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End of Material Safety Data Sheet