PRODUCT NAME: **Travallas™ Complete Herbicide**
SPECIFICATION ID#: **50003118**

Travallas™ Complete Herbicide is a combination package of two (2) individual products. Attached are the component product SDS which make up **Travallas™ Complete Herbicide**:

Travallas™ Herbicide	PCP # **31685** SDS Date: **03/27/2025** Specification ID#: **50000101**
Pinoxaden 100 EC Herbicide	PCP # **35806** SDS Date: **01/20/2026** Specification ID#: **50003124**

Please read the SDS in order to have a complete understanding of all the risks associated with each product before use.

Manufacturer/Distributor:
FMC of Canada Limited
6755 Mississauga Road, Suite 204
Mississauga, ON L5N 7Y2
Canada

Telephone Numbers:
Product Information: 1-833-362-7722
Medical Emergency: 1-800-331-3148 (USA & Canada)
Preparation

Date: 01/20/2026

SAFETY DATA SHEET
according to the Hazardous Products Regulations

Travallas™ Herbicide

Version	Revision Date:	SDS Number:	Date of last issue: 03/01/2018
1.2	03/27/2025	50000101	Date of first issue: 03/01/2018

SECTION 1. IDENTIFICATION

Product identifier

Product name Travallas™ Herbicide

Other means of identification

Product code 50000101

Product Registration Number PCP # 31685

Recommended use of the chemical and restrictions on use

Recommended use Can be used as herbicide only.

Restrictions on use Use as recommended by the label.

Manufacturer or supplier's details

Manufacturer

FMC of Canada Ltd
6755 Mississauga Road, Suite 204
Mississauga, ON L5N 7Y2
Canada
Web: https://ag.fmc.com/ca/en
SDS-Info@fmc.com

Supplier Address

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

Flammable liquids : Category 4

Skin sensitization : Category 1

GHS label elements

Hazard pictograms :

Signal Word : WARNING

Hazard Statements : H227 Combustible liquid.
H317 May cause an allergic skin reaction.

Precautionary Statements :

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing mist or vapors.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 Store in a well-ventilated place.

Disposal:

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

Other hazards

Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
fluroxypyr-meptyl (ISO)	Fluroxypyr-meptyl	81406-37-3	21.9
thifensulfuron-methyl	Thifensulfuron-	79277-27-3	3

(ISO)	methyl		
Metsulfuron-methyl	Metsulfuron-methyl	74223-64-6	0.3
Fatty acids, soya, Me esters	Fatty acids, soya, Me esters	68919-53-9	>= 10 - < 30 *
Octadecanoic acid, 12-hydroxy-, homopolymer, octadecanoate	Octadecanoic acid, 12-hydroxy-, homopolymer, octadecanoate	58128-22-6	>= 1 - < 5 *

* Actual concentration or concentration range is withheld as a trade secret

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 immediately 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.
If symptoms persist, call a physician.
Do not induce vomiting without medical advice.

Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.

Protection of first-aiders : Avoid inhalation, ingestion and contact with skin and eyes.

Notes to physician	:	Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Dry chemical, CO2, water spray or regular foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	Do not spread spilled material with high-pressure water streams. High volume water jet
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 (NOx) Carbon oxides Sulfur oxides Hydrogen cyanide Hydrogen fluoride Hydrogen chloride Chlorine compounds Fluorine compounds
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Use a water spray to cool fully closed containers.
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. If it can be safely done, stop the leak. Evacuate personnel to safe areas. Do not touch or walk through the spilled material. 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	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Do not spray on a naked flame or any incandescent material. Keep away from open flames, hot surfaces and sources of ignition.
Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Conditions for safe storage	:	No smoking. Keep in a well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
Further information on storage 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.
Materials to avoid	:	Do not store near acids.
Further information on storage stability	:	No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection : In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

No personal respiratory protective equipment normally required.

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 : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.
Remove and wash contaminated clothing and gloves, including the inside, before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

Color : light gray

Odor : solvent-like

pH	:	3.9 - 4.9 Concentration: 1 %
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	93 °C
Flammability (liquids)	:	Based on available information, the classification criteria for flammability hazard are not met.
Self-ignition	:	No data available
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	Not available for this mixture.
Relative vapor density	:	Not available for this mixture.
Density	:	0.89 - 1.09 g/cm3
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	231.9 mPa.s (20 °C)
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The product is not oxidizing.
Particle size	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed. Vapors may form explosive mixture with air.
Conditions to avoid	:	Heat, flames and sparks. Protect from frost. Heating of the product will produce harmful and irritant vapours.
Incompatible materials	:	Avoid strong acids, bases, and oxidizers.
Hazardous decomposition products	:	Stable under recommended storage conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

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

Product:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 425 Remarks: (Data on the product itself) Information source: Internal study report
Acute inhalation toxicity	:	LC50 (Rat): > 5.11 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Remarks: (Data on the product itself) Information source: Internal study report
Acute dermal toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 402 Remarks: (Data on the product itself) Information source: Internal study report

Components:

fluroxypyr-meptyl (ISO):

Acute oral toxicity	:	LD50 (Rat): 5,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat, male and female): > 1.16 mg/l Exposure time: 4 h

Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Highest attainable concentration.

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

thifensulfuron-methyl (ISO):

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

Acute inhalation toxicity : LC50 (Rat): > 7.9 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

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

Metsulfuron-methyl:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: US EPA Test Guideline OPP 81-1
Assessment: The substance or mixture has no acute oral toxicity

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): > 5.11 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Symptoms: Breathing difficulties
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: no mortality

Acute dermal toxicity : LD50 (Rabbit, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 402
Symptoms: Irritation
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: no mortality

Fatty acids, soya, Me esters:

Acute oral toxicity : LD50 (Rat): 5,000 - 15,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): 2,000 - 20,000 mg/kg

Octadecanoic acid, 12-hydroxy-, homopolymer, octadecanoate:

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

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
Remarks	:	(Data on the product itself) Information source: Internal study report
Remarks	:	May cause skin irritation and/or dermatitis.

Components:

fluroxypyr-meptyl (ISO):

Species	:	Rabbit
Assessment	:	Not classified as irritant
Result	:	No skin irritation

thifensulfuron-methyl (ISO):

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
Remarks	:	Minimal effects that do not meet the threshold for classification.

Metsulfuron-methyl:

Species	:	Rabbit
Assessment	:	Not classified as irritant
Method	:	US EPA Test Guideline OPP 81-5
Result	:	No skin irritation

Fatty acids, soya, Me esters:

Result : slight irritation

Octadecanoic acid, 12-hydroxy-, homopolymer, octadecanoate:

Species	:	Rabbit
Result	:	Skin irritation

Serious eye damage/eye irritation

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

Product:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405
Remarks	:	(Data on the product itself) Information source: Internal study report
Remarks	:	Vapors may cause irritation to the eyes, respiratory system and the skin.

Components:

fluroxypyr-meptyl (ISO):

Species	:	Rabbit
Assessment	:	No eye irritation
Method	:	OECD Test Guideline 405
Remarks	:	Minimal effects that do not meet the threshold for classification.

thifensulfuron-methyl (ISO):

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

Metsulfuron-methyl:

Species	:	Rabbit
Result	:	slight irritation
Assessment	:	Not classified as irritant
Method	:	EPA OPP 81-4

Fatty acids, soya, Me esters:

Result	:	Irritation to eyes, reversing within 7 days

Octadecanoic acid, 12-hydroxy-, homopolymer, octadecanoate:

Species	:	Rabbit
Result	:	Mild eye irritation
Method	:	Draize Test

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
Method	:	OECD Test Guideline 429
Result	:	May cause sensitization by skin contact.
Remarks	:	(Data on the product itself) Information source: Internal study report
Remarks	:	Causes sensitization.

Components:

fluroxypyr-meptyl (ISO):

Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitization.

thifensulfuron-methyl (ISO):

Test Type	:	Maximization Test
Species	:	Guinea pig
Method	:	OECD Test Guideline 429
Result	:	Does not cause skin sensitization.

Metsulfuron-methyl:

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	US EPA Test Guideline OPPTS 870.2600
Result	:	Not a skin sensitizer.

Fatty acids, soya, Me esters:

Result	:	Does not cause skin sensitization.

Octadecanoic acid, 12-hydroxy-, homopolymer, octadecanoate:

Test Type	:	Maximization Test
Species	:	Guinea pig
Result	:	Does not cause skin sensitization.

Germ cell mutagenicity

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

Components:

thifensulfuron-methyl (ISO):

Genotoxicity in vitro	:	Test system: Chinese hamster ovary cells Method: OECD Test Guideline 476 Result: negative Remarks: In vitro tests did not show mutagenic effects

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

Metsulfuron-methyl:

Genotoxicity in vitro	:	Test Type: Ames test Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: yes Test Type: Chromosome aberration test in vitro Metabolic activation: Metabolic activation Result: positive GLP: yes
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse Result: negative

Carcinogenicity

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

Components:

fluroxypyr-meptyl (ISO):

Species	:	Rat
Method	:	OECD Test Guideline 451
Result	:	negative
Species	:	Mouse
Method	:	OECD Test Guideline 453
Result	:	negative

thifensulfuron-methyl (ISO):

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

Metsulfuron-methyl:

Species	:	Rat, male and female
Exposure time	:	104 weeks
NOAEL	:	500 ppm
Result	:	negative
Species	:	Mouse, male and female
Exposure time	:	18 month(s)
NOAEL	:	5,000 ppm
Result	:	negative

Fatty acids, soya, Me esters:

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

Reproductive toxicity

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

Components:

fluroxypyr-meptyl (ISO):

Effects on fertility	:	Method: OECD Test Guideline 416 Result: negative
Effects on fetal development	:	Method: OECD Test Guideline 414 Result: negative

thifensulfuron-methyl (ISO):

Reproductive toxicity - Assessment	:	Did not show teratogenic effects in animal experiments.

Metsulfuron-methyl:

Effects on fertility	:	Test Type: Two-generation study Species: Rat, male and female Application Route: Oral Result: negative
Effects on fetal development	:	Test Type: Embryo-fetal development Species: Rabbit, female Application Route: Ingestion Symptoms: Maternal effects. Result: negative Test Type: Embryo-fetal development Species: Rat, female Application Route: Ingestion Symptoms: Maternal effects. Result: negative

STOT-single exposure

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

STOT-repeated exposure

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

Repeated dose toxicity

Components:

fluroxypyr-meptyl (ISO):

Species	:	Rat
NOAEL	:	80 mg/kg

Exposure time	:	90 d
Method	:	OECD Test Guideline 408
Target Organs	:	Kidney

thifensulfuron-methyl (ISO):

Species	:	Rat
LOAEL	:	ca. 200 mg/kg
Exposure time	:	90 d
Target Organs	:	No specific target organs noted
Symptoms	:	Reduced body weight

Metsulfuron-methyl:

Species	:	Rat, male and female
NOEL	:	1000 ppm
Application Route	:	Oral - feed
Exposure time	:	90 days
Symptoms	:	Reduced body weight

Aspiration toxicity

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

Product:

No aspiration toxicity classification

Neurological effects

Components:

Metsulfuron-methyl:

No neurotoxicity observed in animal studies.

Further information

Product:

Remarks	:	Information presented in section 11 conforms to the requirements of the Hazardous Products Regulations (HPR) and WHMIS 2015. See Section 15 for applicable information conforming to the requirements of the Pest Management Regulatory Agency (PMRA).
Remarks	:	No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 1.2 mg/l

Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1.2 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 10 mg/l
Exposure time: 72 h

ErC50 (Lemna gibba (duckweed)): 0.033 mg/l
Exposure time: 7 d

Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 108 mg/kg
Exposure time: 28 d

Toxicity to terrestrial organisms : LD50 (Apis mellifera (bees)): > 214 µg/bee
Exposure time: 48 h
End point: Acute oral toxicity

LD50 (Apis mellifera (bees)): > 200 µg/bee
Exposure time: 48 h
End point: Acute contact toxicity

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Components:

fluroxypyr-meptyl (ISO):

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): > 0.63 mg/l
Exposure time: 96 h

LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.2 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0.183 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 1.41 mg/l
Exposure time: 72 h

LC50 (Scenedesmus subspicatus): > 0.5 mg/l
Exposure time: 72 h

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 0.2 mg/l
Exposure time: 21 d

Toxicity to daphnia and other : NOEC (Daphnia magna (Water flea)): 0.06 mg/l

aquatic invertebrates (Chronic toxicity)		Exposure time: 21 d
Toxicity to soil dwelling organisms	:	LC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg Exposure time: 14 d
Toxicity to terrestrial organisms	:	LD50 (Anas platyrhynchos (Mallard duck)): > 2,000 mg/kg
		LD50 (Colinus virginianus (Bobwhite quail)): > 2,000 mg/kg
		LD50 (Apis mellifera (bees)): > 100 µg/bee Exposure time: 48 h End point: Acute oral toxicity
		LD50 (Apis mellifera (bees)): > 100 µg/bee Exposure time: 48 h End point: Acute contact toxicity

thifensulfuron-methyl (ISO):

Toxicity to fish	:	LC50 (Salmo gairdneri): 100 mg/l Exposure time: 96 h
		LC50 (Oncorhynchus mykiss (rainbow trout)): > 250 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 470 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	IC50 (green algae): 0.0159 mg/l Exposure time: 72 h
		ErC50 (Raphidocelis subcapitata (freshwater green alga)): 1.4 mg/l Exposure time: 72 h
		EC50 (Lemna minor (duckweed)): 1.3 µg/l
Toxicity to fish (Chronic toxicity)	:	NOEC (Salmo gairdneri): 250 mg/l Exposure time: 28 d
		NOEC (Oncorhynchus mykiss (rainbow trout)): 10.6 mg/l Exposure time: 21 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 100 mg/l Exposure time: 21 d
Toxicity to soil dwelling organisms	:	LC50 (Eisenia fetida (earthworms)): > 2,000 mg/kg
Toxicity to terrestrial organ-	:	LD50 (Anas platyrhynchos (Mallard duck)): > 2,510 mg/kg

isms

LD50 (Anas platyrhynchos (Mallard duck)): > 5,620 ppm
Remarks: Dietary

LD50 (Colinus virginianus (Bobwhite quail)): > 5,620 ppm

LD50 (Apis mellifera (bees)): > 7.1 µg/bee
End point: Acute oral toxicity

LD50 (Apis mellifera (bees)): > 100 µg/bee
End point: Acute contact toxicity

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Metsulfuron-methyl:

Toxicity to fish : LC50 (Poecilia reticulata (guppy)): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 120 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

EC50 (Daphnia magna (Water flea)): 43.1 mg/l
End point: Immobilization
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic plants : ErC50 (Anabaena flos-aquae (cyanobacterium)): 65.7 µg/l
Exposure time: 96 h
Method: OPPTS 850.5400
GLP: yes

NOEC (Anabaena flos-aquae (cyanobacterium)): 45 µg/l
Exposure time: 96 h
Method: OPPTS 850.5400
GLP: yes

ErC50 (Selenastrum capricornutum (green algae)): 157 µg/l
Exposure time: 72 h
GLP: yes

NOEC (Selenastrum capricornutum (green algae)): 50 µg/l
Exposure time: 72 h
GLP: yes

Toxicity to fish (Chronic toxicity)	:	NOEC (Oncorhynchus mykiss (rainbow trout)): 68 mg/l Exposure time: 21 d NOEC (Pimephales promelas (fathead minnow)): 10 mg/l End point: reproduction Exposure time: 21 d Method: OECD Test Guideline 229 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 3.13 mg/l End point: reproduction Exposure time: 21 d Test Type: semi-static test Method: OECD Test Guideline 211 NOEC (Daphnia magna (Water flea)): 0.5 mg/l Exposure time: 21 d
Toxicity to soil dwelling organisms	:	NOEC (Eisenia fetida (earthworms)): 6 mg/kg Exposure time: 56 d NOEC (Eisenia fetida (earthworms)): 5.6 mg/kg End point: reproduction Method: OECD Test Guideline 222 GLP: yes Method: OECD Test Guideline 216 Remarks: No significant adverse effect on Nitrogen mineralization.
Toxicity to terrestrial organisms	:	LD50 (Apis mellifera (bees)): > 50 µg/bee Exposure time: 48 h End point: Acute contact toxicity Method: OEPP/EPPO Test Guideline 170 LD50 (Apis mellifera (bees)): > 50 µg/bee Exposure time: 48 h End point: Acute oral toxicity Method: OEPP/EPPO Test Guideline 170 LD50 (Anas platyrhynchos (Mallard duck)): > 2,510 mg/kg NOEC (Colinius virginianus): 1,000 mg/kg End point: Reproduction Test NOEC (Anas platyrhynchos (Mallard duck)): 1,000 ppm End point: Reproduction Test Method: OECD Test Guideline 206

Fatty acids, soya, Me esters:

Toxicity to fish	:	LC50 (Fish): > 1,000 mg/l

Exposure time: 96 h

LC50 (Leuciscus idus (Golden orfe)): > 100 mg/l
Exposure time: 48 h
Method: ISO 7346/2

Toxicity to daphnia and other aquatic invertebrates : EC50 (Crustaceans): 800 - 5,243 mg/l
Exposure time: 48 h

Octadecanoic acid, 12-hydroxy-, homopolymer, octadecanoate:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Crustaceans): 1,614 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Skeletonema costatum (marine diatom)): > 10,000 mg/l
Exposure time: 72 h

Persistence and degradability

Product:

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

Components:

fluroxypyr-meptyl (ISO):

Biodegradability : Remarks: Not readily biodegradable.

thifensulfuron-methyl (ISO):

Biodegradability : Remarks: Not readily biodegradable.
Primary degradation half-lives vary with circumstances, from a few days to a few weeks in aerobic water and soil.

Metsulfuron-methyl:

Biodegradability : Result: Not readily biodegradable.
Remarks: Primary degradation half-lives vary with circumstances, from a few weeks to a few months in aerobic soil and water.

Fatty acids, soya, Me esters:

Biodegradability : Result: Readily biodegradable.

Octadecanoic acid, 12-hydroxy-, homopolymer, octadecanoate:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 57 %
Exposure time: 28 d
Method: OECD Test Guideline 301C

Bioaccumulative potential

Product:

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

Components:

fluroxypyr-meptyl (ISO):

Bioaccumulation : Species: Oncorhynchus mykiss (rainbow trout)
Bioconcentration factor (BCF): 26
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 4.5 (25 °C)

thifensulfuron-methyl (ISO):

Bioaccumulation : Bioconcentration factor (BCF): 1
Remarks: Does not bioaccumulate.

Metsulfuron-methyl:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): < 1
Exposure time: 28 d
Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : Pow: 0.018 (25 °C)
log Pow: -1.7 (25 °C)
pH: 7

Fatty acids, soya, Me esters:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Mobility in soil

Product:

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

Components:

fluroxypyr-meptyl (ISO):

Distribution among environmental compartments : Koc: 6200 - 43000
Remarks: The product is not expected to be mobile in soils.

thifensulfuron-methyl (ISO):

Distribution among environmental compartments : Koc: 28.3, log Koc: 1.45
Remarks: Highly mobile in soils

Stability in soil :

Metsulfuron-methyl:

Distribution among environmental compartments : Remarks: Under normal conditions the substance/mixture is mobile in soil.

Other adverse effects

Product:

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.

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.
Triple rinse containers.
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 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Fluroxypyr-meptyl, Thifensulfuron-methyl, Metsulfuron-methyl)
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. (Fluroxypyr-meptyl, Thifensulfuron-methyl, Metsulfuron-methyl)
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. (Fluroxypyr-meptyl, Thifensulfuron-methyl, Metsulfuron-methyl)
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
Not regulated as a dangerous good

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

NPRI Components : methanol

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 chemical substance(s) exempt from CEPA DSL Inventory requirements. It is regulated as a pesticide subject to Pest Control Products Act (PCPA) require-

ments. 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

Canadian lists

No substances are subject to a Significant New Activity Notification.

PMRA/PCPA Information

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. The following is the hazard information required on the pest control product label:, Read the label, authorized under the Pest Control Products Act, prior to using or handling the pest control product

CAUTION

Harmful if absorbed through the skin., 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.

SECTION 16. OTHER INFORMATION

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 Sys-

tem; 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

Disclaimer

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CA / EN

Prepared by:

FMC Corporation

End of Material Safety Data Sheet

SAFETY DATA SHEET
according to the Hazardous Products Regulations

PINOXADEN 100 EC

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	01/20/2026	50003124	Date of first issue: 01/20/2026

SECTION 1. IDENTIFICATION

Product identifier

Product name PINOXADEN 100 EC

Other means of identification

Product code 50003124

Product Registration Number PCP #35806

Recommended use of the chemical and restrictions on use

Recommended use Herbicide

Restrictions on use Use as recommended by the label.

Manufacturer or supplier's details

Manufacturer

FMC Corporation
2929 WALNUT ST
PHILADELPHIA PA 19104
USA
Web: https://ag.fmc.com/ca/en
SDS-Info@fmc.com

Supplier Address

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

Specific target organ toxicity - repeated exposure : Category 2 (Bladder)

Aspiration hazard : Category 1

GHS label elements

Hazard pictograms :

Signal Word : DANGER

Hazard Statements : H227 Combustible liquid.
H304 May be fatal if swallowed and enters airways.
H373 May cause damage to organs (Bladder) through prolonged or repeated exposure.

Precautionary Statements :

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe mist or vapors.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P302 + P352 + P312 IF ON SKIN: Wash with plenty of water.Call a POISON CENTER/ doctor if you feel unwell.
P314 Get medical advice/ attention if you feel unwell.
P331 Do NOT induce vomiting.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P403 Store in a well-ventilated place.
P405 Store locked up.

Disposal:

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

Other hazards

Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)

pinoxaden (ISO)	pinoxaden	243973-20-8	9.86
Cloquintocet-mexyl	Cloquintocet-mexyl	99607-70-2	>= 1 - < 5
Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified	Aromatic hydrocarbons	64742-94-5	>= 20 - < 60

SECTION 4. FIRST AID MEASURES

General advice	:	Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later. Do not leave the victim unattended.
If inhaled	:	Move to fresh air. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician. 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	:	Take victim immediately to hospital. If on skin, rinse well with water. If on clothes, remove clothes.
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 induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.
Most important symptoms and effects, both acute and delayed	:	May be fatal if swallowed and enters airways. May cause damage to organs through prolonged or repeated exposure.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection and use the recommended 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. Do not induce vomiting: contains petroleum distillates and/or aromatic solvents. Treat symptomatically.

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	:	Carbon oxides Fire may produce irritating, corrosive and/or toxic gases.
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. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.
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. 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	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Do not spray on a naked flame or any incandescent material. Keep away from open flames, hot surfaces and sources of ignition.
Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapors/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	:	No smoking. Keep in a well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
Further information on storage stability	:	No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified	64742-94-5	TWA	200 mg/m3 (total hydrocarbon vapor)	CA AB OEL
		TWAEV	200 mg/m3	CA QC OEL
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH

Personal protective equipment

Respiratory protection	:	No personal respiratory protective equipment normally re-

quired.

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.
Ensure that eye flushing systems and safety showers are located close to the working place.
Wear suitable protective equipment.

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	:	liquid
Color	:	yellow-orange
Odor	:	Aromatic
Odor Threshold	:	No data available
pH	:	3.0 - 7.0 (20 °C) Concentration: 1 % (as aqueous solution)
Melting point/freezing point	:	< -10 °C
Boiling point/boiling range	:	No data available
Flash point	:	> 93 °C

Evaporation rate	:	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	:	1.0 - 1.1 g/cm3 (20 °C)
Bulk density	:	No data available
Solubility(ies)		
Water solubility	:	200 mg/l Active ingredient (25 °C)
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	:	6.76 mPa.s (20 °C)
		3.87 mPa.s (40 °C)
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
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 reactions	:	No decomposition if stored and applied as directed. Vapors may form explosive mixture with air.

Conditions to avoid	:	Heat, flames and sparks. Avoid formation of aerosol.
Incompatible materials	:	Avoid strong acids, bases, and oxidizers.
Hazardous decomposition products	:	No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

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

Product:

Acute oral toxicity	:	LD50 Oral (Rat): 5,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 5.288 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 Dermal (Rat): > 2,000 mg/kg

Components:

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

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Acute oral toxicity	:	LD50 (Rat, male and female): > 5,000 mg/kg Method: OECD Test Guideline 401 Remarks: Based on data from similar materials
Acute inhalation toxicity	:	LC50 (Rat): > 4.688 mg/l Exposure time: 4 h Test atmosphere: vapor Assessment: The substance or mixture has no acute inhala-

tion toxicity

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

Skin corrosion/irritation

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

Product:

Species : Rabbit
Assessment : Not classified as irritant
Result : No skin irritation

Components:

Cloquintocet-mexyl:

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Remarks : Minimal effects that do not meet the threshold for classification.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Species : Rabbit
Assessment : Repeated exposure may cause skin dryness or cracking.
Result : No skin irritation
Remarks : Minimal effects that do not meet the threshold for classification.
Based on data from similar materials

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

Components:

Cloquintocet-mexyl:

Species : Rabbit
Assessment : No eye irritation
Method : OECD Test Guideline 405
Remarks : Minimal effects that do not meet the threshold for classification.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Species	:	Rabbit
Assessment	:	No eye irritation
Remarks	:	Minimal effects that do not meet the threshold for classification. Based on data from similar materials

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:

Species	:	Guinea pig
Assessment	:	Not classified as irritant
Result	:	Not a skin sensitizer.

Components:

Cloquintocet-mexyl:

Species	:	Guinea pig
Method	:	OECD Test Guideline 429
Result	:	The product is a skin sensitizer, sub-category 1B.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Test Type	:	Maximization Test
Species	:	Guinea pig
Result	:	Not a skin sensitizer.
Remarks	:	Based on data from similar materials

Germ cell mutagenicity

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

Components:

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.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

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

Genotoxicity in vivo : Test Type: Bone marrow chromosome aberration.
Species: Rat
Application Route: inhalation (vapor)
Result: negative

Carcinogenicity

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

Components:

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

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Species	:	Rat, male and female
Application Route	:	inhalation (vapor)
Exposure time	:	12 month(s)
NOAEC	:	1.8 mg/l
Result	:	negative
Remarks	:	Based on data from similar materials

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Reproductive toxicity

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

Components:

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

STOT-single exposure

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

Components:

Cloquintocet-mexyl:

Remarks	:	No significant adverse effects were reported

STOT-repeated exposure

May cause damage to organs (Bladder) through prolonged or repeated exposure.

Components:

Cloquintocet-mexyl:

Target Organs	:	Bladder
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

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Species	:	Rat, male and female
NOAEC	:	0.9 - 1.8 mg/l
Application Route	:	inhalation (vapor)
Exposure time	:	12 Months

Aspiration toxicity

May be fatal if swallowed and enters airways.

Components:

Cloquintocet-mexyl:

No aspiration toxicity classification

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

May be fatal if swallowed and enters airways.

Experience with human exposure

Components:

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Skin contact	:	Symptoms: Repeated exposure may cause skin dryness or cracking.

Further information

Product:

Remarks	:	Solvents may degrease the skin.

Components:

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Remarks	:	Vapour concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anaesthetic and may have other central nervous system effects. Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Cloquintocet-mexyl:

Toxicity to fish	:	LC50 (Salmo gairdneri): > 76 mg/l 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 (Chronic 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 organisms	:	LC50 (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)): > 2,000 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

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Toxicity to fish	:	LL50 (Oncorhynchus mykiss (rainbow trout)): 2 - 5 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): 1.4 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EL50 (Pseudokirchneriella subcapitata (green algae)): 1 - 3 mg/l Exposure time: 24 h Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	EL50 (Daphnia magna (Water flea)): 0.89 mg/l Exposure time: 21 d Method: OECD Test Guideline 211
Toxicity to microorganisms	:	LL50 (Tetrahymena pyriformis): 677.9 mg/l Exposure time: 72 h Test Type: Growth inhibition

Persistence and degradability

Components:

Cloquintocet-mexyl:

Biodegradability	:	Result: Not readily biodegradable.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 58.6 % Exposure time: 28 d Method: OECD Test Guideline 301F Remarks: Based on data from similar materials

Bioaccumulative potential

Components:

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)

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Bioaccumulation	:	Remarks: The product/substance has a potential to bioaccumulate.
Partition coefficient: n-octanol/water	:	log Pow: 3.72 Method: QSAR

Mobility in soil

Components:

Cloquintocet-mexyl:

Distribution among environmental compartments	:	Remarks: immobile

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Distribution among environmental compartments	:	Remarks: Expected to partition to sediment and wastewater solids. Moderately volatile.

Other adverse effects

Product:

Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. 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. Dispose of as unused product.

Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), heavy arom.)
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. (Solvent naphtha (petroleum), heavy arom.)
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. (Solvent naphtha (petroleum), heavy arom.)
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 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), heavy arom.)
Class	:	9
Packing group	:	III

Labels	:	9
ERG Code	:	171
Marine pollutant	:	yes(Solvent naphtha (petroleum), heavy arom.)

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

NPRI Components	:	Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified

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 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

Canadian lists

No substances are subject to a Significant New Activity Notification.

PMRA/PCPA Information

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act. These requirements differ from the classification criteria and hazard information required

for GHS-consistent safety data sheets. The following is the hazard information required on the pest control product label:, Read the label, authorized under the Pest Control Products Act, prior to using or handling the pest control product

CAUTION
Harmful if swallowed, Harmful if absorbed through the skin., Causes eye irritation, Avoid contact with skin, eyes and clothing., 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.

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 QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
ACGIH / TWA	:	8-hour, time-weighted average
CA AB OEL / TWA	:	8-hour Occupational exposure limit
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 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 Tem-

perature; 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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Prepared by:

FMC Corporation

End of Safety Data Sheet