

# **Material Safety Data Sheet**

**FMC** Corporation

Product Name: Perimeter Herbicide

Issue Date: 2019.09.11

FMC Corporation encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

### 1. Product and Company Identification

#### **Product Name**

Perimeter Herbicide

PCP# 29586

#### **COMPANY IDENTIFICATION**

FMC Corporation 2929 Walnut Street Philadelphia, PA 19104 (215) 299-6000 (General Information) msdsinfo@fmc.com (E-Mail General Information)

Prepared By: Revision	Prepared for use in Canada by FMC Corporation 2019.09.11
Medical Emergency:	1 800 / 331-3148 (U.S.A. & Canada) 1 651 / 632-6793 (All Other Countries - Collect)
	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)

### 2. Hazards Identification

Emergency Overview Color: Brown Physical State: Liquid Odor: Odorless Hazards of product:

WARNING! Combustible liquid and vapor. Causes eye irritation. May cause central nervous system effects; may cause respiratory tract irritation. Aspiration hazard. Can enter lungs and cause damage. Isolate area. Keep upwind of spill. Toxic fumes may be released in fire situations. Suspect cancer hazard. May cause cancer.

#### **Potential Health Effects**

**Eye Contact:** May cause moderate eye irritation which may be slow to heal. May cause slight corneal injury. Vapor may cause eye irritation experienced as mild discomfort and redness.

Skin Contact: Brief contact may cause slight skin irritation with local redness.

**Skin Absorption:** Prolonged skin contact is unlikely to result in absorption of harmful amounts. **Inhalation:** No adverse effects are anticipated from single exposure to mist. Excessive exposure to solvent(s) may cause respiratory irritation and central nervous system depression.

**Ingestion:** Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

**Aspiration hazard:** Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia.

**Effects of Repeated Exposure:** For the solvent(s): Excessive exposure to solvent(s) may cause respiratory irritation and central nervous system depression. For the minor component(s): In animals, effects have been reported on the following organs: Liver. Kidney. Blood-forming organs (Bone marrow & Spleen). Blood. Respiratory tract.

**Cancer Information:** For the minor component(s) Naphthalene. Has caused cancer in some laboratory animals. In humans, there is limited evidence of cancer in workers involved in naphthalene production. Limited oral studies in rats were negative.

**Birth Defects/Developmental Effects:** For the active ingredient(s): Fluroxypyr 1-methylheptyl ester. Has been toxic to the fetus in laboratory animals at doses toxic to the mother. For the minor component(s): Has been toxic to the fetus in lab animals at doses nontoxic to the mother. Has caused birth defects in laboratory animals only at doses toxic to the mother.

**Reproductive Effects:** For the minor component(s): In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

Component	CAS #	Amount W/W
Fluroxypyr 1-methylheptyl ester	81406-37-3	26.2 %
Naphthalene	91-20-3	<= 6.0 %
N-Methyl-2-pyrrolidone	872-50-4	5.1 %
1,2,4-Trimethylbenzene	95-63-6	<= 3.4 %
Solvent naphtha (petroleum), light aromatic	64742-95-6	0.7 %
Balance	Not available	58.6 %

### **3.** Composition/information on ingredients

Amounts are presented as percentages by weight.

### 4. First-aid measures

#### **Description of first aid measures**

**Inhalation:** Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Skin Contact: Wash skin with plenty of water.

**Eye Contact:** Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

**Ingestion:** Do not induce vomiting. Call a physician and/or transport to emergency facility immediately. **Most important symptoms and effects, both acute and delayed** 

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), no additional symptoms and effects are anticipated.

#### Indication of immediate medical attention and special treatment needed

Maintain adequate ventilation and oxygenation of the patient. The decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

### 5. Fire Fighting Measures

#### Suitable extinguishing media

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

#### Special hazards arising from the substance or mixture

**Hazardous Combustion Products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Hydrogen fluoride. Hydrogen chloride. Carbon monoxide. Carbon dioxide.

**Unusual Fire and Explosion Hazards:** Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. **Advice for firefighters** 

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

**Special Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

See Section 9 for related Physical Properties

### 6. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact FMC Corporation for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

#### 7. Handling and Storage

#### Handling

General Handling: Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Do not swallow. Avoid breathing vapor. Use with adequate ventilation. Keep container closed. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Keep away from heat, sparks and flame. Keep out of reach of children. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION. Handling operations that can promote accumulation of static charges include but are not limited to mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations.

#### Storage

Store in a dry place. Store in original container. Keep container tightly closed. Do not store near food, foodstuffs, drugs or potable water supplies.

#### 8. **Exposure Controls / Personal Protection**

Exposure L	_imits
------------	--------

Exposure Limits			
Component	List	Туре	Value
Fluroxypyr 1-methylheptyl ester	FMC GRA	TWA	10 mg/m3
Naphthalene	CAD AB OEL CAD AB OEL CAD BC OEL CAD BC OEL CAD ON OEL CAD ON OEL ACGIH ACGIH OEL (QUE) OEL (QUE)	TWA STEL TWAEV STEV TWA STEL TWA STEL	52 mg/m3 10 ppm SKIN 79 mg/m3 15 ppm SKIN 10 ppm SKIN 15 ppm SKIN 52 mg/m3 10 ppm 78 mg/m3 15 ppm 10 ppm SKIN 15 ppm SKIN 52 mg/m3 10 ppm 79 mg/m3 15 ppm
N-Methyl-2-pyrrolidone	CAD ON OEL AIHA WEEL	TWAEV TWA	400 mg/m3 40 mg/m3 10 ppm SKIN
1,2,4-Trimethylbenzene	CAD AB OEL CAD BC OEL CAD ON OEL ACGIH OEL (QUE)	TWA TWA TWAEV TWA TWA	123 mg/m3 25 ppm 25 ppm 123 mg/m3 25 ppm 25 ppm 123 mg/m3 25 ppm

Consult local authorities for recommended exposure limits.

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING. A "skin" notation following the inhalation exposure guideline refers to the potential for dermal absorption of the material including mucous membranes and the eyes either by contact with vapors or by direct skin contact.

It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered.

#### **Personal Protection**

**Eye/Face Protection:** Use chemical goggles. If exposure causes eye discomfort, use a full-face respirator.

**Skin Protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Hand protection:** Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. Styrene/butadiene rubber. Examples of acceptable glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Chlorinated polyethylene. Butyl rubber. Natural rubber ("latex"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Respiratory Protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

**Ingestion:** Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face before smoking or eating.

#### **Engineering Controls**

**Ventilation:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

### 9. Physical and Chemical Properties

Physical State	Liquid
Color	Brown
Odor	Odorless
Odor Threshold	Odorless
рН	5.5 <i>Literature</i> 1% aqueous solution.
Melting Point	No test data available
Freezing Point	-10 °C Literature
Boiling Point (760 mmHg)	202 °C Literature
Flash Point - Closed Cup	63 °C Closed Cup
Evaporation Rate	No test data available
(Butyl Acetate = 1)	
Flammable Limits In Air	Lower: No test data available
	<b>Upper</b> : No test data available
Vapor Pressure	No test data available
Vapor Density (air = 1)	No test data available
Specific Gravity (H2O = 1)	No test data available
Solubility in water	No test data available
(by weight)	
Autoignition Temperature	No test data available
Decomposition	No test data available
Temperature	
Kinematic Viscosity	No test data available
Liquid Density	0.99 g/cm3 @ 25 °C Calculated

## 10. Stability and Reactivity

#### Reactivity

No dangerous reaction known under conditions of normal use. **Chemical stability** Unstable at elevated temperatures.

#### Possibility of hazardous reactions

Polymerization will not occur.

**Conditions to Avoid:** Active ingredient decomposes at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

#### Incompatible Materials: Avoid contact with: Acids. Bases. Oxidizers.

#### Hazardous decomposition products

Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide. Hydrogen chloride. Hydrogen fluoride. Nitrogen oxides. Toxic gases are released during decomposition.

### 11. Toxicological Information

### **Acute Toxicity**

Ingestion

LD50, rat, male 3,738 mg/kg LD50, rat, female 3,162 mg/kg

### Dermal

LD50, rabbit > 2,000 mg/kg

#### Inhalation

LC50, 4 h, Aerosol, rat, male and female > 6.2 mg/l

#### Eye damage/eye irritation

May cause moderate eye irritation which may be slow to heal. May cause slight corneal injury. Vapor may cause eye irritation experienced as mild discomfort and redness.

#### Skin corrosion/irritation

Brief contact may cause slight skin irritation with local redness.

#### Sensitization

Skin

Did not cause allergic skin reactions when tested in guinea pigs.

#### **Repeated Dose Toxicity**

For the active ingredient(s): Based on available data, repeated exposures are not anticipated to cause significant adverse effects. For the solvent(s): Excessive exposure to solvent(s) may cause respiratory irritation and central nervous system depression. For the minor component(s): In animals, effects have been reported on the following organs: Liver. Kidney. Blood-forming organs (Bone marrow & Spleen). Blood. Respiratory tract.

#### **Chronic Toxicity and Carcinogenicity**

Active ingredient did not cause cancer in laboratory animals. For the minor component(s) Naphthalene. Has caused cancer in some laboratory animals. In humans, there is limited evidence of cancer in workers involved in naphthalene production. Limited oral studies in rats were negative.

### Carcinogenicity Classifications:

Component	List	Classification
Naphthalene	IARC	Possibly carcinogenic to humans.; 2B
Developmental Taxiaity		

#### **Developmental Toxicity**

For the active ingredient(s): Fluroxypyr 1-methylheptyl ester. Has been toxic to the fetus in laboratory animals at doses toxic to the mother. For the minor component(s): Has been toxic to the fetus in lab animals at doses nontoxic to the mother. Has caused birth defects in laboratory animals only at doses toxic to the mother. For the active ingredient(s): Fluroxypyr 1-methylheptyl ester. Did not cause birth defects in laboratory animals.

#### **Reproductive Toxicity**

In animal studies, active ingredient did not interfere with reproduction. For the minor component(s): In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

### Genetic Toxicology

For the active ingredient(s): In vitro genetic toxicity studies were negative. For some component(s): In vitro genetic toxicity studies were negative in some cases and positive in other cases. For the active ingredient(s): For the component(s) tested: Animal genetic toxicity studies were negative.

### 12. Ecological Information

#### Toxicity

ſ

Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

#### **Toxicity to Above Ground Organisms**

oral LD50, Colinus virginianus (Bobwhite quail): > 2250 mg/kg diet.

#### Persistence and Degradability

#### Data for Component: Fluroxypyr 1-methylheptyl ester

Material is not readily biodegradable according to OECD/EEC guidelines. **Stability in Water (1/2-life):** 454 d **OECD Biodegradation Tests:** 

Biodegradation	Exposure Time	Method	10 Day Window
32 %			
The eventical Overseen D			

Theoretical Oxygen Demand: 2.2 mg/g

#### Data for Component: Naphthalene

Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%).

Indirect Photodegrada	ation with OH Radicals	6	
Rate Constant	Atmosphe	eric Half-life	Method
2.16E-11 cm3/s	5.	9 h	Estimated.
Biological oxygen der	nand (BOD):		
BOD 5	BOD 10	BOD 20	BOD 28
57.000 %	71.000 %	71.000 %	
The excited Output on D	a ma a m al . 0.00 ma m /ma m		

Theoretical Oxygen Demand: 3.00 mg/mg

#### Data for Component: N-Methyl-2-pyrrolidone

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% biodegradation in OECD test(s) for inherent biodegradability).

#### **OECD Biodegradation Tests:**

Biodegradation	Exposure Time	Method		10 Day Window
91 %	28 d	OECD 301B	Test	pass
> 90 %	8 d	OECD 302B	Test	Not applicable
73 %	28 d	OECD 301C	Test	Not applicable
Indirect Photodegrad	ation with OH Radicals	i		
Rate Constant	Atmosphe	Atmospheric Half-life Method		Method
2.199E-11 cm3/s	s 0.4	86 d		Estimated.

Theoretical Oxygen Demand: 2.58 mg/mg

#### Data for Component: 1,2,4-Trimethylbenzene

Material is expected to biodegrade only very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

OECD Biodegradation	Tests:
---------------------	--------

Biodegradation	Exposure Time	Method	10 Day Window
4 - 18 %	28 d	OECD 301C Test	Not applicable
Indirect Photodegrada	ation with OH Radicals		
Rate Constant	Atmosphe	ric Half-life	Method
Rate Constant 1.670E-11 cm3/s	· · · · · · · · · · · · · · · · · · ·	ric Half-life 11 d	Method Estimated.

Data for Component: Solvent naphtha (petroleum), light aromatic

For the major component(s): Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%). For some component(s): Biodegradation under aerobic static laboratory conditions is low (BOD20 or BOD28/ThOD between 2.5 and 10%).

#### **Bioaccumulative potential**

Data for Component: Fluroxypyr 1-methylhe	eptvl ester			
<b>Bioaccumulation:</b> Bioconcentration potential is low (BCF < 100 or Log Pow < 3).				
Partition coefficient, n-octanol/water (log Pow): 5.04 Measured				
Bioconcentration Factor (BCF): 26;	Oncorhynchus mykis	s (rainbow trout); Meas	sured	
Data for Component: Naphthalene				
Bioaccumulation: Bioconcentration p	otential is moderate	BCF between 100 and	3000 or Log	
Pow between 3 and 5).		x	0	
Partition coefficient, n-octanol/wate	er (log Pow): 3.3 Mea	asured		
Bioconcentration Factor (BCF): 40 -	- 300; Fish; Measured	1		
Data for Component: N-Methyl-2-pyrrolidon				
Bioaccumulation: Bioconcentration p				
Partition coefficient, n-octanol/wate		leasured		
Data for Component: 1,2,4-Trimethylbenzen				
Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log				
Pow between 3 and 5).				
Partition coefficient, n-octanol/wate				
Bioconcentration Factor (BCF): 33 - 275; Cyprinus carpio (Carp); Measured				
Data for Component: Solvent naphtha (petroleum), light aromatic Bioaccumulation: For the major component(s): Bioconcentration potential is moderate (BCF				
between 100 and 3000 or Log Pow be			s):	
Bioconcentration potential is low (BCF	< 100 or Log Pow <	3).		
Mobility in soil				
Data for Component: Fluroxypyr 1-methylke		Kaa > 5000)		
<b>Mobility in soil:</b> Expected to be relatively immobile in soil (Koc > 5000). <b>Partition coefficient, soil organic carbon/water (Koc):</b> 6,200 - 43,000 <b>Henry's Law</b>				
Constant (H): 5.42E-08 atm*m3/mole		,200 - 43,000 <b>Henry S</b> I	_dw	
Data for Component: Naphthalene	, 25 C Measured			
<b>Mobility in soil:</b> Potential for mobility in soil is medium (Koc between 150 and 500).				
Partition coefficient, soil organic carbon/water (Koc): 240 - 1,300 Measured				
Henry's Law Constant (H): 2.92E-04				
Distribution in Environment: Macka	.,			
Distribution in Environment: Macka Air Water.	Biota	Soil	Sediment	
Air Water.			Sediment	
Air         Water.           74 %         8.5 %	< 0.01 %	<b>Soil</b> 18 %	Sediment           0.39 %	
AirWater.74 %8.5 %Data for Component:N-Methyl-2-pyrrolidon	< 0.01 %	18 %	0.39 %	
Air         Water.           74 %         8.5 %           Data for Component:         N-Methyl-2-pyrrolidon           Mobility in soil:         Given its very low Hereits	<ul> <li>&lt; 0.01 %</li> <li><u>e</u></li> <li>enry's constant, volati</li> </ul>	18 %	0.39 %	
Air         Water.           74 %         8.5 %           Data for Component:         N-Methyl-2-pyrrolidon           Mobility in soil:         Given its very low He or moist soil is not expected to be an it	<ul> <li>&lt; 0.01 %</li> <li><u>e</u></li> <li>enry's constant, volati</li> </ul>	18 %	0.39 %	
Air         Water.           74 %         8.5 %           Data for Component:         N-Methyl-2-pyrrolidon           Mobility in soil:         Given its very low He or moist soil is not expected to be an i very high (Koc between 0 and 50).	< 0.01 % <u>e</u> enry's constant, volati mportant fate process	18 % lization from natural bo s., Potential for mobility	0.39 %	
AirWater.74 %8.5 %Data for Component:N-Methyl-2-pyrrolidonMobility in soil:Given its very low He or moist soil is not expected to be an i very high (Koc between 0 and 50).Partition coefficient, soil organic ca	< 0.01 % <u>e</u> enry's constant, volatile mportant fate process urbon/water (Koc): 2	18 % lization from natural bo s., Potential for mobility 1 Estimated.	0.39 %	
Air         Water.           74 %         8.5 %           Data for Component:         N-Methyl-2-pyrrolidon           Mobility in soil:         Given its very low He or moist soil is not expected to be an i very high (Koc between 0 and 50).           Partition coefficient, soil organic cat Henry's Law Constant (H): 4.46E-08           Data for Component:         1,2,4-Trimethylbenzem	< 0.01 % <u>e</u> enry's constant, volatile mportant fate process arbon/water (Koc): 2 atm*m3/mole; 25 °C	18 % lization from natural bo s., Potential for mobility 1 Estimated. Measured	0.39 %	
Air         Water.           74 %         8.5 %           Data for Component:         N-Methyl-2-pyrrolidon           Mobility in soil:         Given its very low He or moist soil is not expected to be an i very high (Koc between 0 and 50).           Partition coefficient, soil organic cat Henry's Law Constant (H):         4.46E-08           Data for Component:         1,2,4-Trimethylbenzen           Mobility in soil:         Potential for mobility	< 0.01 % <u>e</u> enry's constant, volatile mportant fate process arbon/water (Koc): 2 atm*m3/mole; 25 °C in soil is low (Koc bet	18 % lization from natural bo s., Potential for mobility 1 Estimated. Measured ween 500 and 2000).	0.39 %	
Air         Water.           74 %         8.5 %           Data for Component:         N-Methyl-2-pyrrolidon           Mobility in soil:         Given its very low He or moist soil is not expected to be an i very high (Koc between 0 and 50).           Partition coefficient, soil organic cat Henry's Law Constant (H):         4.46E-08           Data for Component:         1,2,4-Trimethylbenzen           Mobility in soil:         Potential for mobility           Partition coefficient, soil organic cat for mobility in soil:         Potential for mobility	< 0.01 % <u>e</u> enry's constant, volatii mportant fate process arbon/water (Koc): 2 atm*m3/mole; 25 °C in soil is low (Koc bet arbon/water (Koc): 7	18 % lization from natural bo s., Potential for mobility 1 Estimated. Measured ween 500 and 2000). 20 Estimated.	0.39 %	
Air         Water.           74 %         8.5 %           Data for Component:         N-Methyl-2-pyrrolidon           Mobility in soil:         Given its very low He or moist soil is not expected to be an i very high (Koc between 0 and 50).           Partition coefficient, soil organic cat Henry's Law Constant (H):         4.46E-08           Data for Component:         1,2,4-Trimethylbenzen           Mobility in soil:         Potential for mobility	< 0.01 % <u>e</u> enry's constant, volatii mportant fate process arbon/water (Koc): 2 atm*m3/mole; 25 °C in soil is low (Koc bet arbon/water (Koc): 7	18 % lization from natural bo s., Potential for mobility 1 Estimated. Measured ween 500 and 2000). 20 Estimated.	0.39 %	

#### Data for Component: Solvent naphtha (petroleum), light aromatic

**Mobility in soil:** For the major component(s):, Potential for mobility in soil is low (Koc between 500 and 2000).

### 13. Disposal Considerations

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

### 14. Transport Information

TDG Small container NOT REGULATED

**TDG Large container** NOT REGULATED

#### IMDG

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Technical Name: Solvent naphtha (petroleum), light arom., Fluroxypyr 1-methylheptyl ester Hazard Class: 9 ID Number: UN3082 Packing Group: PG III EMS Number: F-A,S-F Marine pollutant.: No

#### ICAO/IATA

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Technical Name: CONTAINS NAPHTHALENE, Solvent naphtha (petroleum), light arom. Hazard Class: 9 ID Number: UN3082 Packing Group: PG III Cargo Packing Instruction: 964 Passenger Packing Instruction: 964

### 15. Regulatory Information

#### **CEPA - Domestic Substances List (DSL)**

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

#### Hazardous Products Act Information: CPR Compliance

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

#### Hazardous Products Act Information: WHMIS Classification

This product is exempt under WHMIS.

#### Pest Control Products Act Registration number: 29586

National Fire Code of Canada Class IIIA

## 16. Other Information

Hazard Rating	System		
NFPA	Health	Fire	Reactivity
	2	2	1
Recommended	d Uses and Restrict	ions	
Identified uses			

Product use: End use herbicide product

#### Revision

Identification Number: 51231 / 1023 / Issue Date 2019.09.11 / Version: 6.3

Legend	
N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
FMC GRA	FMC Global Regulatory Affairs
WEEL	Workplace Environmental Exposure Level
HAZ_DES	Hazard Designation
VOL/VOL	Volume/Volume

FMC Corporation urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDS obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.