

Material Safety Data Sheet

DRAGNET® FT EMULSIFIABLE CONCENTRATE

MSDS #: 1677-A
Revision Date: 2014-02-21
Version 1.03



This MSDS has been prepared to meet U.S. OSHA Hazard Communication Standard 29 CFR 1910.1200 And Canadian Workplace Hazardous Materials Information System (WHMIS) requirements.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	DRAGNET® FT EMULSIFIABLE CONCENTRATE
Formula code	1677
Active Ingredient(s)	Permethrin
Alternate Commercial Name	Dragnet®
Synonyms	FMC 33297; 3-phenoxybenzyl (1RS,3RS;1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate; (3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate
Chemical Family	Pyrethroid Pesticide
Recommended use:	Insecticide
Manufacturer	Emergency telephone number
FMC Corporation Agricultural Products Group 1735 Market Street Philadelphia, PA 19103 General Information: Phone: (215) 299-6000 E-Mail: msdsinfo@fmc.com	Medical Emergencies: 1 800 / 331-3148 (PROSAR - U.S.A. & Canada) 1 651 / 632-6793 (PROSAR - All Other Countries - Collect) For leak, fire, spill or accident emergencies, call: 1 800 / 424 9300 (CHEMTREC - U.S.A.) 1 703 / 527 3887 (CHEMTREC - Collect - All Other Countries)

2. HAZARDS IDENTIFICATION

Appearance	amber liquid
Physical state	Liquid
Odor	Faint hydrocarbon
Physical or Chemical Hazards	
Flammable properties	Combustible liquid
Potential health effects	
Acute effects	
Eyes	May cause slight irritation.
Skin	Substance may cause slight skin irritation. May cause sensitization by skin contact.
Inhalation	May cause irritation of respiratory tract. May cause additional effects as listed under "Ingestion".
Ingestion	Harmful if swallowed. Potential for aspiration if swallowed. May cause central nervous system depression. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic effects

Effects are expected to be similar to those that are seen with acute toxicity. Chronic exposure to solvents may cause headaches, dizziness, loss of sensations or feelings (such as numbness), and liver and kidney damage.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

Chemical Name	CAS-No	Weight %
Permethrin	52645-53-1	36.8
White spirit	8052-41-3	10-30

4. FIRST AID MEASURES

Eye contact	Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
Skin contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Inhalation	Move person to fresh air. If person is not breathing, call 911 (within the U.S. and Canada) or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
Ingestion	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not induce vomiting or give anything by mouth to an unconscious person.
Notes to physician	Vomiting may cause aspiration pneumonia. This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

5. FIRE-FIGHTING MEASURES

<u>Flammable properties</u>	Combustible liquid
Flash Point	42 °C / 108 °F
Sensitivity to Mechanical Impact	Not applicable
Sensitivity to Static Discharge	Not applicable
Suitable extinguishing media	Foam. Carbon dioxide (CO ₂). Dry chemical. Water spray or fog.
Protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus and full protective gear. Isolate fire area. Evaluate downwind.

NFPA

Health Hazard	1
Flammability	2
Stability	0
Special Hazards	-

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Isolate and post spill area. Remove all sources of ignition. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.
Environmental precautions	Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.
Methods for containment	Dike to prevent runoff. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
Methods for cleaning up	Clean and neutralize spill area, tools and equipment by washing with bleach water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.
Other	For further clean-up instructions call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

7. HANDLING AND STORAGE

Handling	Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.
Storage	Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of reach of children and animals. Store in original container only. Keep at temperatures above 40°C.

8. EXPOSURE CONTROL / PERSONAL PROTECTIONExposure guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
White spirit 8052-41-3	TWA: 100 ppm	TWA: 500 ppm TWA: 2900 mg/m ³	IDLH: 20000 mg/m ³ TWA: 350 mg/m ³ Ceiling: 1800 mg/m ³	Mexico: TWA 100 ppm Mexico: TWA 523 mg/m ³ Mexico: STEL 200 ppm Mexico: STEL 1050 mg/m ³
Chemical Name	British Columbia	Quebec	Ontario TWAEV	Alberta
White spirit 8052-41-3	TWA: 290 mg/m ³ STEL: 580 mg/m ³	TWA: 100 ppm TWA: 525 mg/m ³	TWA: 525 mg/m ³	TWA: 100 ppm TWA: 572 mg/m ³

Occupational exposure controls

Engineering measures	Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.
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Personal Protective Equipment

General Information	If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.
Respiratory protection	For dust, splash, mist or spray exposures wear a filtering mask.
Eye/face protection	For dust, splash, mist or spray exposure, wear chemical protective goggles or a face-shield
Skin and body protection	Wear long-sleeved shirt, long pants, socks, shoes, and gloves.
Hand protection	Protective gloves
Hygiene measures	Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Remove and wash contaminated clothing before re-use. Launder work clothing separately from regular household laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Appearance	amber liquid
Color	amber
Physical state	Liquid
Odor	Faint hydrocarbon
pH	7.5 @ 20 °C (5 % solution) (as aqueous solution)
Melting Point/Range	No information available.
Freezing point	No information available
Boiling Point/Range	Not applicable
Flash Point	42 °C / 108 °F
Evaporation rate	Not applicable
Flammable properties	Combustible liquid
Vapor pressure	No information available
Vapor density	No information available
Density	8.66 lb/gal
Specific Gravity	1.039 @ 20 °C
Water solubility	Emulsifies
Percent volatile	No information available
Partition coefficient	Not applicable
Viscosity	No information available

10. STABILITY AND REACTIVITY

Stability	Stable.
Conditions to avoid	Excessive heat, Extreme risk of explosion by shock, friction, fire or other sources of ignition
Hazardous decomposition products	Chlorine, Hydrogen chloride, Carbon oxides, Aldehydes.
Hazardous polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION**Acute effects****Acute Toxicity**

Large toxic doses of the formulated product, administered to laboratory animals, have produced central nervous system effects with symptoms that include hypersensitivity to touch and sound, tremors, and clonic convulsions. Overexposure to animals via inhalation has also produced symptoms such as squinting eyes, irregular and rattling breathing, and ataxia.

Eye contact	Slightly or non-irritating (rabbit)
Skin contact	Slightly or non-irritating (rabbit)
Ingestion	Potential for aspiration if swallowed. Aspiration may cause pulmonary edema and pneumonitis.
Inhalation	Inhalation of solvent vapors may cause dizziness, disturbances in vision, drowsiness, respiratory irritation, and eye, skin and mucous membrane irritation.
LD50 Dermal	> 2,000 mg/kg (rabbit)
LD50 Oral	998 mg/kg (Rat)
LC50 Inhalation	> 4.3 mg/L 4 hr (Rat)

Sensitization	Sensitizer
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Chronic effects

Chronic Toxicity	Effects are expected to be similar to those that are seen with acute toxicity. Chronic exposure to solvents may cause headaches, dizziness, loss of sensations or feelings (such as numbness), and liver and kidney damage.
Carcinogenicity	Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH).

Mutagenicity Permethrin: Did not show mutagenic effects in animal experiments.

Reproductive toxicity Permethrin: No toxicity to reproduction in animal studies.

Neurological Effects Permethrin: Clinical signs of neurotoxicity include altered motor activity and FOB effects, with no signs of histopathology

Developmental Toxicity Permethrin: Not teratogenic in animal studies

Target Organ Effects Permethrin: Long-term feeding studies in animals resulted in increased liver and kidney weights, induction of the liver microsomal drug metabolizing enzyme system and histopathological changes in the lungs and liver.

Chemical Name	ACGIH	IARC	NTP	OSHA	NIOSH - Target Organs
White spirit					eyes,CNS,respiratory system,skin,kidneys

12. ECOLOGICAL INFORMATION

Ecotoxicity

Permethrin (52645-53-1)				
Active Ingredient(s)	Duration	Species	Value	Units
Permethrin	LC50	aquatic arthropods	0.02 - 7.6	µg/L
	LC50	Fish	0.05 - 315	µg/L
	LD50 Oral	Bobwhite quail	>5200	mg/kg
	LD50 Oral	Mallard duck	>5200	mg/kg
	LD50	Bee	0.026 - 0.17	µg/bee

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Trade Secret				380: 48 h Daphnia magna mg/L EC50

Environmental Fate

Permethrin (52645-53-1)		
Active Ingredient(s)	Type of Test	Result
Permethrin	Bioconcentration factor (BCF) Lepomis macrochirus (Bluefill sunfish)	535
	Half-life in soil	~30 days
	log Pow	6.1
	Mobility in soil	Not expected to reach groundwater
	Stability in water	Stable to hydrolysis over a wide range of pH values.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance.

Contaminated packaging Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

US EPA Waste Number D001

14. TRANSPORT INFORMATION**DOT**

The classification below pertains to the shipment in bulk and non-bulk packaging.

UN/ID No	NA1993
Hazard Class	Combustible
Packing group	III
Additional information	This product has been reclassified from Flammable Liquid to Combustible Liquid in accordance with the provisions at 49 CFR § 173.150(f)(1).

TDG

The "Marine Pollutant" marking is only applicable when shipped by vessel, and is not applicable when shipped only by road or rail in Canada.

UN/ID No	UN 1993
Hazard Class	3
Packing group	III
Marine pollutant	Permethrin.
Description	Flammable liquid, n.o.s. (white spirit, permethrin), UN1993, 3, III, Marine Pollutant

ICAO/IATA

UN/ID No	UN 1993
Hazard Class	3
Packing group	III
Marine pollutant	Permethrin
Description	Flammable liquid, n.o.s. (white spirit, permethrin), UN1993, 3, III, Marine Pollutant

IMDG/IMO

UN/ID No	UN1993
Hazard Class	3
Packing group	III
EmS No.	F-E, S-E
Marine pollutant	Permethrin
Description	Flammable liquid, n.o.s. (white spirit, permethrin), UN1993, 3, III (42 °C), Marine Pollutant

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Permethrin	52645-53-1	36.8	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	yes
Chronic Health Hazard	yes
Fire Hazard	yes
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

TSCA Inventory (United States of America)

International Regulations

Mexico - Grade

Slight risk, Grade 1

Chemical Name	Carcinogen Status	Mexico
White spirit		Mexico: TWA 100 ppm Mexico: TWA 523 mg/m ³ Mexico: STEL 200 ppm Mexico: STEL 1050 mg/m ³

Canada

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

WHMIS Hazard Class

B3 Combustible liquid
 D2B Toxic materials



16. OTHER INFORMATION

Revision Date: 2014-02-21
Reason for revision: No information available.

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Prepared By

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End of Material Safety Data Sheet