

Material Safety Data Sheet

DRAGNET® FT EMULSIFIABLE CONCENTRATE

MSDS #: 1677-A
Revision Date: 2012-07-12
Version 1.02



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
<u>Manufacturer</u> FMC Corporation Agricultural Products Group 1735 Market Street Philadelphia, PA 19103 General Information: Phone: (215) 299-6000 E-Mail: msdsinfo@fmc.com	<u>Emergency telephone number</u> Medical Emergencies: 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 / 527 3887 (CHEMTREC - Collect - All Other Countries)

2. HAZARDS IDENTIFICATION

<u>Appearance</u>	amber liquid
<u>Physical state</u>	Liquid
<u>Odor</u>	Faint hydrocarbon
<u>Physical or Chemical Hazards</u>	.
Flammable properties	Combustible liquid
<u>Potential health effects</u>	
<u>Acute effects</u>	
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

Flammable properties 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 (CO₂). 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.

8. Exposure controls/personal protection

Exposure 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	
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.

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 / 108 154 °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
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.
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
STOT - single exposure	No information available
STOT - Repeated Exposure	No information available
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				EC50 380 mg/L 48 h

Environmental Fate

Permethrin (52645-53-1)		
Active Ingredient(s)	Type of Test	Result
Permethrin	Bioconcentration factor (BCF) Bluefill sunfish (Lepomis macrochirus)	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.

14. Transport information

<u>DOT</u>	Not regulated for transportation if shipped in Non Bulk packaging. The classification below pertains to the shipment in 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). As a Combustible Liquid, this material is not subject to the hazardous materials regulations when transported within the USA in non-bulk packages per 49 CFR § 173.150(f)(2).
<u>TDG</u>	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.
<u>ICAO/IATA</u>	
UN/ID No	UN 1993
Hazard Class	3
Packing group	III
Marine pollutant	Permethrin
<u>IMDG/IMO</u>	
UN/ID No	UN1993
Hazard Class	3
Packing group	III
EmS No.	F-E, S-E
Marine pollutant	Permethrin

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

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 ClassB3 Combustible liquid
D2B Toxic materials**16. OTHER INFORMATION**

Revision Date: 2012-07-12
Reason for revision: No information available.

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Prepared By

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End of Material Safety Data Sheet