

Material Safety Data Sheet

D-Force Insecticide

SDS #: 7099-A
Revision Date: 2012-10-10
Version 2



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

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	D-Force Insecticide
Active Ingredient(s)	Deltamethrin
Synonyms	(1R,3R)-3(2,2-dibromovinyl)-2,2-dimethylcyclopropane carboxylic
Chemical Family	Pyrethroid Ester Insecticide
Recommended use	Insecticide
<u>Manufacturer</u>	<u>Emergency telephone number</u>
FMC Corporation Agricultural Products Group 1735 Market Street Philadelphia, PA 19103 General Information: Phone: (215) 299-6000 E-Mail: msdsinfo@fmc.com	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) Medical Emergencies: (800) 331-3148 (U.S.A. & Canada) +1 (651) 632-6793 (All Other Countries - Collect)

2. Hazards identification

<u>Appearance</u>	Clear, colorless Aerosolized liquid
<u>Physical state</u>	aerosol
<u>Odor</u>	No information available.
<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 drowsiness and dizziness.
Ingestion	Harmful if swallowed. Potential for aspiration if swallowed. May cause central nervous system depression.
<u>Chronic effects</u>	Effects are expected to be similar to those that are seen with acute toxicity. Repeated or prolonged exposure may cause central nervous system effects. Chronic exposure to aromatic hydrocarbons may cause liver and kidney damage.

3. Composition/information on ingredients

Hazardous ingredients

Chemical Name	CAS-No	Weight %
Proprietary material	Proprietary	>75
Naphtha (petroleum), light alkylate	64741-66-8	10-20
Carbon Dioxide	124-38-9	1-5
Deltamethrin	52918-63-5	0.6

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 to fresh air. If person is not breathing, call 911 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 give anything by mouth to an unconscious person.
Notes to physician	Contains petroleum distillate. 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

Flash Point	Flame extension: 35". Non-flammable per flame projection test.
Sensitivity to Mechanical Impact	not applicable
Sensitivity to Static Discharge	not applicable

NFPA

Health Hazard	0
Flammability	1
Stability	0
Special Hazards	-

6. Accidental release measures

Personal precautions	Isolate and post spill area. Remove all sources of ignition. Ventilate the area. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8. If ventilation is not possible wear full protection suit and chemical protective equipment.
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 cleaning up	Transfer damaged cartridges or cans to containers for later disposal. Clean and neutralize spill area, tools and equipment by washing with bleach water and soap. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13. Rinsate may be disposed at a waste water treatment plant.
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 protectionExposure guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
Carbon Dioxide 124-38-9	STEL 30000 ppm TWA: 5000 ppm	TWA: 5000 ppm TWA: 9000 mg/m ³	IDLH: 40000 ppm TWA: 5000 ppm TWA: 9000 mg/m ³ STEL: 30000 ppm STEL: 54000 mg/m ³	
Chemical Name	British Columbia	Quebec	Ontario TWAEV	Alberta
Proprietary material	TWA: 200 mg/m ³ Skin			
Carbon Dioxide 124-38-9	TWA: 5000 ppm STEL: 15000 ppm	TWA: 5000 ppm TWA: 9000 mg/m ³ STEL: 30000 ppm STEL: 54000 mg/m ³	TWA: 5000 ppm STEL: 30000 ppm	TWA: 5000 ppm TWA: 9000 mg/m ³ STEL: 30000 ppm STEL: 54000 mg/m ³

Occupational exposure controls

Engineering measures	Apply technical measures to comply with the occupational exposure limits. 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 suitable protective clothing. Protective shoes or boots.
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

Appearance	Clear, colorless Aerosolized liquid
Color	Clear, colorless
Physical state	aerosol
Odor	No information available.
pH	No information available.
Melting Point/Range	No information available.
Freezing point	No information available

Boiling Point/Range	not applicable
Flash Point	Flame extension: 35". Non-flammable per flame projection test.
Evaporation rate	not applicable
Autoignition Temperature	not applicable
Vapor pressure	No information available
Vapor density	No information available
Density	6.69 lb/gal
Water solubility	No information available
Percent volatile	No information available
Partition coefficient:	not applicable
Viscosity	No information available
Oxidizing properties	not applicable

10. Stability and reactivity

Stability	Stable.
Conditions to avoid	Excessive heat
Hazardous decomposition products	None known .
Hazardous polymerization	Hazardous polymerization does not occur.

11. Toxicological information

Eye contact	Non-irritating
Skin contact	Slightly or non-irritating (rabbit)
Ingestion	Potential for aspiration if swallowed. Vomiting after ingestion of this product may cause aspiration of aromatic hydrocarbons into the lungs, which may result in fatal pulmonary edema.
Inhalation	Aerosol expected to be irritating based on components. Inhalation of aromatic hydrocarbon vapors may cause dizziness, disturbances in vision, drowsiness, respiratory irritation, and eye, skin and mucous membrane irritation.
LD50 Dermal	> 2000 mg/kg (rat)
LD50 Oral	500 5000 mg/kg (rat)
LC50 Inhalation:	> 2 mg/L (rat)

Sensitization	Sensitizer
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Chronic Toxicity - Other Ingredient(s)

Chronic Toxicity	Effects are expected to be similar to those that are seen with acute toxicity. Repeated or prolonged exposure may cause central nervous system effects. Chronic exposure to aromatic hydrocarbons may cause liver and kidney damage.
Carcinogenicity	Not carcinogenic.
Mutagenicity	Not mutagenic.
Reproductive toxicity	No toxicity to reproduction.
Neurological Effects	Neurobehavioral effects (tremors) were observed in studies with animals.
Developmental Toxicity	Not teratogenic in animal studies.

<u>Chronic Toxicity - Other Ingredient(s)</u>	Chronic exposure to aromatic hydrocarbons may cause headaches, dizziness, loss of sensations or feelings (such as numbness), and liver and kidney damage.
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Chemical Name	ACGIH	IARC	NTP	OSHA	NIOSH - Target Organs
Carbon Dioxide					respiratory system, CVS

12. Ecological information

Ecotoxicity

Active Ingredient(s)				
Deltamethrin (52918-63-5)				
Active Ingredient(s)	Duration	Species	Value	Units
Deltamethrin	96 h LC50	Fish	0.00017	mg/L
	LC50	Mollusk	0.0082	mg/L
	LD50 Dietary	Mallard duck	8,039	ppm
	LD50 Oral	Bobwhite quail	>2,250	mg/L

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Proprietary material		LC50 45 mg/L Pimephales promelas 96 h LC50 2.2 mg/L Lepomis macrochirus 96 h LC50 2.4 mg/L Oncorhynchus mykiss 96 h		LC50 4720 mg/L 96 h
Naphtha (petroleum), light alkylate	30000 mg/L EC50 72 h (Pseudokirchneriella subcapitata)			LC50 2 mg/L 48 h

Environmental Fate

Active Ingredient(s)		
Deltamethrin (52918-63-5)		
Active Ingredient(s)	Type of Test	Result
Deltamethrin	Bioconcentration factor (BCF)	189-3,390
	Stability in water	55-65 hours

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

DOT

USDOT is requiring that products formerly classified as "Consumer Commodity, ORM-D" transition to "Limited Quantity" by 1/1/2014. During the transition period the 49CFR carton shipping marks may be Consumer Commodity (old) or Limited Quantity Diamond (new). Please prepare shipping documents to match the carton mark.

Packaging Type
Proper shipping name

14 oz. fill
Consumer Commodity

D-Force Insecticide

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Hazard Class ORM-D
UN/ID No UN1950

TDG Ship as Limited Quantity. Carton marks include Limited Quantity and Class 9 Diamond.
Proper shipping name Aerosols
Hazard Class 2.2
UN/ID No UN1950

ICAO/IATA Carton Marks: Limited quantity air, orientation arrows, Class 9 Diamond, Consumer Commodity, ID8000
UN/ID No ID8000
Proper shipping name Consumer Commodity
Hazard Class 2.2

IMDG/IMO Ship as Limited Quantity. Carton marks include Limited Quantity mark and orientation arrows.
Proper shipping name Aerosols
Hazard Class 2.2
UN/ID No UN1950
EmS No. F-D, S-U

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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	yes
Chronic Health Hazard	yes
Fire Hazard	no
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

Moderate risk, Grade 2

Chemical Name	Mexico - Pollutant Release and Transfer Register - Reporting Emissions for Fabrication, Process or Use - Threshold Quantities	Pollutant Release and Transfer Register - Reporting Emissions - Threshold Quantities
Carbon Dioxide	100000	100000 kg/yr

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

D2B Toxic materials



16. Other information

Revision Date: 2012-10-10
Reason for revision: Initial Release.

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End of Material Safety Data Sheet