1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name D-Force Insecticide

Other means of identification

Product Code(s) 7099-A

Synonyms (1R,3R)-3(2,2-dibromovinyl)-2,2-dimethylcyclopropane carboxylic

Active Ingredient(s) Deltamethrin

Chemical Family Pyrethroid Ester Insecticide

Recommended use of the chemical and restrictions on use

Recommended Use: Insecticide

Restrictions on Use: Use as recommended by the label.

Supplier Address

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

Emergency telephone number

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 Emergencies:
1 800 / 331-3148 (ProPharma Group - U.S.A. & Canada)
1 651 / 632-6793 (ProPharma Group - All Other Countries - Collect)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Acute toxicity - Oral       | Category 4 |
| Acute toxicity - Inhalation (Gases) | Category 4 |
| Skin sensitization         | Category 1B |
| Aspiration toxicity        | Category 1 |
| Flammable Aerosols         | Category 1 |
GHS Label elements, including precautionary statements

**EMERGENCY OVERVIEW**

**Hazard Statements**
H302 - Harmful if swallowed  
H304 - May be fatal if swallowed and enters airways  
H317 - May cause an allergic skin reaction  
H332 - Harmful if inhaled  
**Physical Hazards**
H222 - Extremely flammable aerosol  
H229 - Pressurized container: May burst if heated

**Precautionary Statements - Prevention**
P264 - Wash face, hands and any exposed skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P272 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap  
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention  
P363 - Wash contaminated clothing before reuse  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P312 - Call a POISON CENTER or doctor if you feel unwell  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor  
P331 - Do NOT induce vomiting  
P330 - Rinse mouth

**Precautionary Statements - Storage**
P405 - Store locked up  
P410 + P403 - Protect from sunlight. Store in a well-ventilated place

**Precautionary Statements - Disposal**
P501 - Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**
No hazards not otherwise classified were identified.

**Other Information**
Very toxic to aquatic life with long lasting effects.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Family**
Pyrethroid Ester Insecticide.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated light</td>
<td>64742-47-8</td>
<td>&gt;75</td>
</tr>
<tr>
<td>Naphtha (petroleum), light alkylate</td>
<td>64741-66-8</td>
<td>10-20</td>
</tr>
<tr>
<td>Carbon Dioxide</td>
<td>124-38-9</td>
<td>1-5</td>
</tr>
<tr>
<td>Deltamethrin</td>
<td>52918-63-5</td>
<td>0.06</td>
</tr>
</tbody>
</table>
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 further treatment advice.

**Inhalation**
Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably 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.

**Most important symptoms and effects, both acute and delayed**
None known.

**Indication of immediate medical attention and special treatment needed, if necessary**
Treat symptomatically. Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Specific Hazards Arising from the Chemical**
Contents under pressure. Non-flammable aerosol.

**Explosion data**
No information available.

**Sensitivity to Mechanical Impact**
No information available.

**Sensitivity to Static Discharge**
No information available.

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus and full protective gear. Isolate fire area. Evaluate upwind.

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.

**Other**
For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 “Product and Company Identification” above.

**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**
Prevent further leakage or spillage if safe to do so.

**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 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.

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. Keep/store only in original container.

Incompatible products
None known

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide (124-38-9)</td>
<td>STEL 30000 ppm</td>
<td>TWA: 5000 ppm</td>
<td>IDLH 40000 ppm</td>
<td>Mexico: TWA 5000 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 9000 ppm</td>
<td>TWA: 9000 ppm</td>
<td>TWA: 9000 ppm</td>
<td>Mexico: TWA 9000 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 9000 mg/m³</td>
<td>STEL: 30000 ppm</td>
<td>STEL: 54000 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mexico: STEL 15000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mexico: STEL 27000 mg/m³</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated light (64742-47-8)</td>
<td>TWA: 200 mg/m³</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Carbon Dioxide (124-38-9)</td>
<td>TWA: 5000 ppm</td>
<td>TWA: 5000 ppm</td>
<td>TWA: 5000 ppm</td>
<td>TWA: 5000 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL: 15000 ppm</td>
<td>TWA: 9000 ppm</td>
<td>STEL: 30000 ppm</td>
<td>TWA: 9000 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 9000 mg/m³</td>
<td>STEL: 54000 mg/m³</td>
<td>TWA: 5000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL: 30000 ppm</td>
<td>STEL: 54000 mg/m³</td>
<td>TWA: 5000 ppm</td>
</tr>
</tbody>
</table>

Appropriate engineering 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.

Individual protection measures, such as personal protective equipment

Eye/Face Protection
If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

Skin and Body Protection
Wear suitable protective clothing. Protective shoes or boots.

Hand Protection
Use protective gloves made of chemical materials such as nitrile or neoprene. Wash the outside of gloves with soap and water before reuse. Check regularly for leaks.

Respiratory Protection
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

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.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance
Clear, Colorless Aerosolized liquid

Physical State
Aerosol
D-Force Insecticide

SDS #: 7099-A
Revision date: 2018-10-01
Version 1.05

Color: Clear, Colorless
Odor: No information available
Odor threshold: No information available
pH: No information available
Melting point/freezing point: Not applicable
Boiling Point/Range: No information available
Flash point: Non-flammable per flame projection test.
Evaporation Rate: No information available
Flammability (solid, gas): No information available
Flammability Limit in Air
  Upper flammability limit: No information available
  Lower flammability limit: No information available
Vapor pressure: No information available
Vapor density: No information available
Relative density: 6.69 lb/gal
Specific gravity: No information available
Water solubility: No information available
Solubility in other solvents: No information available
Partition coefficient: No information available
Autoignition temperature: No information available
Decomposition temperature: No information available
Viscosity, kinematic: No information available
Viscosity, dynamic: No information available
Explosive properties: No information available
Oxidizing properties: No information available
Molecular weight: No information available
Bulk density: No information available

10. STABILITY AND REACTIVITY

Reactivity: Not applicable
Chemical Stability: Stable under recommended storage conditions.
Possibility of Hazardous Reactions: None under normal processing.
Hazardous polymerization: Hazardous polymerization does not occur.
Conditions to avoid: Heat, flames and sparks.
Incompatible materials: None known.
Hazardous Decomposition Products: None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Product Information

LD50 Oral: > 2000 mg/kg (rat)
LD50 Dermal: > 2000 mg/kg (rat)
LC50 Inhalation: > 2.2 mg/L (rat) 4 hr

Serious eye damage/eye irritation: Mildly irritating.
Skin corrosion/irritation: Irritating to skin.
Sensitization: May cause sensitization by skin contact

Information on toxicological effects

Symptoms: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity: Deltamethrin: Repeated or prolonged exposure may cause central nervous system effects (decrease motor activity, tremor, difficulty breathing, impaired gait and choreoathetosis).

Mutagenicity: Deltamethrin: Not genotoxic in laboratory studies.
Carcinogenicity
Deltamethrin: No evidence of carcinogenicity from animal studies.

Neurological effects
Deltamethrin: Neurobehavioral effects (tremors) were observed in studies with animals.

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

Developmental toxicity
Deltamethrin: Not teratogenic in animal studies.

STOT - single exposure
Not classified.

STOT - repeated exposure
Not classified.

Target organ effects
Nervous system.

Neurological effects
Deltamethrin: Neurobehavioral effects (tremors) were observed in studies with animals.

Aspiration hazard
Potential for aspiration if swallowed.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deltamethrin</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52918-63-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
IARC (International Agency for Research on Cancer)
Group 3 - Not classifiable as to its carcinogenicity to humans

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Deltamethrin (52918-63-5)</th>
<th>Duration</th>
<th>Species</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Ingredient(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deltamethrin</td>
<td>96 h LC50</td>
<td>Fish</td>
<td>0.26</td>
<td>µg/L</td>
</tr>
<tr>
<td></td>
<td>48 h EC50</td>
<td>Crustacea</td>
<td>0.56</td>
<td>µg/L</td>
</tr>
<tr>
<td></td>
<td>72 h EC50</td>
<td>Algae</td>
<td>9.1</td>
<td>mg/L</td>
</tr>
<tr>
<td></td>
<td>21 d NOEC</td>
<td>Fish</td>
<td>0.032</td>
<td>µg/L</td>
</tr>
<tr>
<td></td>
<td>21 d NOEC</td>
<td>Crustacea</td>
<td>0.0041</td>
<td>µg/L</td>
</tr>
</tbody>
</table>

Persistence and degradability

Bioaccumulation
Deltamethrin: The substance has a potential for bioconcentration.

Mobility
Deltamethrin: Immobile; Not expected to reach groundwater.

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. Proper personal protective equipment, as described in Sections 7 and 8, must be worn while handling materials for waste disposal.

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 12/31/2020. During the transition period the 49CFR carton shipping marks may be Consumer Commodity (old) or Limited Quantity Diamond
D-Force Insecticide

UN/ID no
Proper Shipping Name
Hazard class
ORM-D

TDG
Ship as Limited Quantity. Carton marks include Limited Quantity and Class 9 Diamond.

UN/ID no
Proper Shipping Name
Hazard class
Marine Pollutant
Description
ORM-D
Deltamethrin.
UN1950, Aerosols, 2.2, Marine pollutant (Deltamethrin)

ICAO/IATA
Carton Marks: Limited quantity air, orientation arrows, Class 9 Diamond, Consumer Commodity, ID8000

UN/ID no
Proper Shipping Name
Hazard class
ID8000
Consumer commodity
9

IMDG/IMO
Ship as Limited Quantity. Carton marks include Limited Quantity mark and orientation arrows.

UN/ID no
Proper Shipping Name
Hazard class
EmS No.
Description
UN1950
Aerosols
2.2
F-D, S-U
UN1950, Aerosols, 2.2, Marine pollutant (Deltamethrin)

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
Chronic health hazard
Fire hazard
Sudden release of pressure hazard
Reactive Hazard
Yes
Yes
No
No
No

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

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

FIFRA Information
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as
required on the pesticide label:

**CAUTION**
Harmful if swallowed or absorbed through the skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
This product is toxic to fish.

**US State Regulations**

**California Proposition 65**
This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide 124-38-9</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**International Inventories**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>TSCA (United States)</th>
<th>DSL (Canada)</th>
<th>EINECS/ELINCS (Europe)</th>
<th>ENCS (Japan)</th>
<th>China (IECSC)</th>
<th>KECL (Korea)</th>
<th>PICCS (Philippines)</th>
<th>AICS (Australia)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated light 64742-47-8</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Naphtha (petroleum), light alkylate 64741-66-8</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
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<tr>
<td>Carbon Dioxide 124-38-9</td>
<td>X</td>
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<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Deltamethrin 52918-63-5</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Mexico - Grade**
Moderate risk, Grade 2

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Carcinogen Status</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide</td>
<td></td>
<td>Mexico: TWA 5000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico: TWA 9000 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico: STEL 15000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico: STEL 27000 mg/m³</td>
</tr>
</tbody>
</table>

**Mexico - Pollutant Release and Transfer Register - Reporting Emissions for Fabrication, Process or Use - Threshold Quantities**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Mexico - Pollutant Release and Transfer Register - Reporting Emissions - Threshold Quantities</th>
<th>Pollutant Release and Transfer Register - Reporting Emissions - Threshold Quantities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide</td>
<td>100000</td>
<td>100000 kg/yr</td>
</tr>
</tbody>
</table>

**WHMIS Statement**
This product has been classified in accordance with the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

**WHMIS Hazard Class**
A - Compressed gases
D2B - Toxic materials
16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical hazard</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2*</td>
<td>1</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

*Indicates a chronic health hazard.

NFPA/HMIS Ratings Legend
Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

Revision date: 2018-10-01
Reason for revision: (M)SDS sections updated

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Prepared By:
FMC Corporation

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End of Safety Data Sheet