

# Material Safety Data Sheet

## D-Force Insecticide

SDS # : 7099-A  
Revision Date: 2013-05-15  
Version 2.01



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

|                                                                                                                                                                             |                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product name</b>                                                                                                                                                         | D-Force Insecticide                                                                                                                                                                                                                                                          |
| <b>Active Ingredient(s)</b>                                                                                                                                                 | Deltamethrin                                                                                                                                                                                                                                                                 |
| <b>Synonyms</b>                                                                                                                                                             | (1R,3R)-3(2,2-dibromovinyl)-2,2-dimethylcyclopropane carboxylic                                                                                                                                                                                                              |
| <b>Chemical Family</b>                                                                                                                                                      | Pyrethroid Ester Insecticide                                                                                                                                                                                                                                                 |
| <b>Recommended use</b>                                                                                                                                                      | Insecticide                                                                                                                                                                                                                                                                  |
| <b><u>Manufacturer</u></b>                                                                                                                                                  | <b><u>Emergency telephone number</u></b>                                                                                                                                                                                                                                     |
| FMC Corporation<br>Agricultural Products Group<br>1735 Market Street<br>Philadelphia, PA 19103<br>General Information:<br>Phone: (215) 299-6000<br>E-Mail: msdsinfo@fmc.com | For leak, fire, spill or accident emergencies, call:<br>1 800 / 424 9300 (CHEMTREC - U.S.A.)<br>1 703 / 527 3887 (CHEMTREC - Collect - All Other Countries)<br>Medical Emergencies:<br>(800) 331-3148 (U.S.A. & Canada)<br>+1 (651) 632-6793 (All Other Countries - Collect) |

### 2. Hazards identification

|                                        |                                                                                                                                                                                                                                      |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>Appearance</u></b>               | Clear, colorless Aerosolized liquid                                                                                                                                                                                                  |
| <b><u>Physical state</u></b>           | aerosol                                                                                                                                                                                                                              |
| <b><u>Odor</u></b>                     | No information available.                                                                                                                                                                                                            |
| <b><u>Potential health effects</u></b> |                                                                                                                                                                                                                                      |
| <b><u>Acute effects</u></b>            |                                                                                                                                                                                                                                      |
| <b>Eyes</b>                            | May cause slight irritation.                                                                                                                                                                                                         |
| <b>Skin</b>                            | Substance may cause slight skin irritation. May cause sensitization by skin contact.                                                                                                                                                 |
| <b>Inhalation</b>                      | May cause irritation of respiratory tract. May cause drowsiness and dizziness.                                                                                                                                                       |
| <b>Ingestion</b>                       | Harmful if swallowed. Potential for aspiration if swallowed. May cause central nervous system depression.                                                                                                                            |
| <b>Chronic effects</b>                 | 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  | 0.06     |

#### 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 (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 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

|                 |                                                                                                                                                                                               |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling</b> | Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.                                                                                                 |
| <b>Storage</b>  | 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                                                                                           |
|----------------------------|------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Carbon Dioxide<br>124-38-9 | STEL 30000 ppm<br>TWA: 5000 ppm    | TWA: 5000 ppm TWA: 9000<br>mg/m <sup>3</sup>                                                     | IDLH: 40000 ppm<br>TWA: 5000 ppm TWA: 9000<br>mg/m <sup>3</sup><br>STEL: 30000 ppm STEL:<br>54000 mg/m <sup>3</sup> |                                                                                                  |
| Chemical Name              | British Columbia                   | Quebec                                                                                           | Ontario TWAEV                                                                                                       | Alberta                                                                                          |
| Proprietary material       | TWA: 200 mg/m <sup>3</sup><br>Skin |                                                                                                  |                                                                                                                     |                                                                                                  |
| Carbon Dioxide<br>124-38-9 | TWA: 5000 ppm<br>STEL: 15000 ppm   | TWA: 5000 ppm TWA: 9000<br>mg/m <sup>3</sup><br>STEL: 30000 ppm STEL:<br>54000 mg/m <sup>3</sup> | TWA: 5000 ppm<br>STEL: 30000 ppm                                                                                    | TWA: 5000 ppm<br>TWA: 9000 mg/m <sup>3</sup><br>STEL: 30000 ppm<br>STEL: 54000 mg/m <sup>3</sup> |

### Occupational exposure controls

|                             |                                                                                                                                                                                                                                      |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Engineering measures</b> | 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

|                            |                                                                                                                                                                                |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General Information</b> | 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. |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                               |                                                                  |
|-------------------------------|------------------------------------------------------------------|
| <b>Respiratory protection</b> | For dust, splash, mist or spray exposures wear a filtering mask. |
|-------------------------------|------------------------------------------------------------------|

|                            |                                                                                             |
|----------------------------|---------------------------------------------------------------------------------------------|
| <b>Eye/face protection</b> | For dust, splash, mist or spray exposure, wear chemical protective goggles or a face-shield |
|----------------------------|---------------------------------------------------------------------------------------------|

|                                 |                                                               |
|---------------------------------|---------------------------------------------------------------|
| <b>Skin and body protection</b> | Wear suitable protective clothing. Protective shoes or boots. |
|---------------------------------|---------------------------------------------------------------|

|                        |                   |
|------------------------|-------------------|
| <b>Hand protection</b> | Protective gloves |
|------------------------|-------------------|

|                         |                                                                                                                                                                                                                                                                                                                   |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hygiene measures</b> | 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

### 9.1 Information on basic physical and chemical properties

|                       |                                     |
|-----------------------|-------------------------------------|
| <b>Appearance</b>     | Clear, colorless Aerosolized liquid |
| <b>Color</b>          | Clear, colorless                    |
| <b>Physical state</b> | aerosol                             |
| <b>Odor</b>           | No information available.           |
| <b>pH</b>             | 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                                                 |
| 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.                                      |

## 9.2 Other information

## 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 |
|---------------|------------|

### 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.                                                                                                                                                                                                   |

**Chronic Toxicity - Other Ingredient(s)** Chronic exposure to aromatic hydrocarbons may cause headaches, dizziness, loss of sensations or feelings (such as numbness), and liver and kidney damage.

| Chemical Name  | ACGIH | IARC | NTP | OSHA | NIOSH - Target Organs   |
|----------------|-------|------|-----|------|-------------------------|
| Carbon Dioxide |       |      |     |      | respiratory system, CVS |

## 12. Ecological information

### Ecotoxicity

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

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 1/1/2021. 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

14 oz. fill

**D-Force Insecticide**

**MSDS #:** 7099-A  
**Revision Date:** 2013-05-15  
**Version** 2.01

|                             |                    |
|-----------------------------|--------------------|
| <b>Proper shipping name</b> | Consumer Commodity |
| <b>UN/ID No</b>             | UN1950             |
| <b>Hazard Class</b>         | ORM-D              |

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

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

|                             |                                                                                              |
|-----------------------------|----------------------------------------------------------------------------------------------|
| <b><u>IMDG/IMO</u></b>      | Ship as Limited Quantity. Carton marks include Limited Quantity mark and orientation arrows. |
| <b>UN/ID No</b>             | UN1950                                                                                       |
| <b>Proper shipping name</b> | Aerosols                                                                                     |
| <b>Hazard Class</b>         | 2.2                                                                                          |
| <b>EmS No.</b>              | 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: 2013-05-15  
Reason for revision: Initial Release.

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**End of Material Safety Data Sheet**