# MATERIAL SAFETY DATA SHEET
## Capture 3RIVE 3D

MSDS #: 7574-A  
Revision date: 2014-07-23  
Version 1

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

<table>
<thead>
<tr>
<th><strong>Product Name</strong></th>
<th>Capture 3RIVE 3D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formula code</strong></td>
<td>7574</td>
</tr>
<tr>
<td><strong>Active Ingredient(s)</strong></td>
<td>Bifenthrin</td>
</tr>
<tr>
<td><strong>Synonyms</strong></td>
<td>BIFENTHRIN: (2-methyl[1,1'-biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate; IUPAC: 2-methylbiphenyl-3-ylmethyl (Z)-(1RS)-cis-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate.</td>
</tr>
<tr>
<td><strong>Chemical Family</strong></td>
<td>Pyrethroid Pesticide</td>
</tr>
<tr>
<td><strong>Recommended Use:</strong></td>
<td>Insecticide</td>
</tr>
</tbody>
</table>

### Manufacturer
FMC Corporation  
Agricultural Solutions  
1735 Market Street  
Philadelphia, PA 19103  
| **General Information:** |  
| **Phone:** | (215) 299-6000 |
| **E-Mail:** | msdsinfo@fmc.com |

### Emergency telephone number
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:  
| **1 800 / 331-3148** (PROSAR - U.S.A. & Canada) |
| **1 651 / 632-6793** (PROSAR - All Other Countries - Collect) |

## 2. HAZARDS IDENTIFICATION

### Appearance
Off-white Liquid

### Physical State
Liquid

### Odor
Not identified

### Potential Health Effects

#### Principal Routes of Exposure
Eye Contact, Skin Contact, Inhalation, and Ingestion.

#### Acute Effects
- **Eyes:** Moderately irritating to the eyes.
- **Skin:** May cause sensitization by skin contact.
- **Inhalation:** May cause irritation of respiratory tract. May cause additional affects as listed under "Ingestion".
- **Ingestion:** Harmful if swallowed. Potential for aspiration if swallowed. Ingestion may cause gastrointestinal discomfort including nausea, vomiting and diarrhea if large amounts are ingested. May cause drowsiness and dizziness.

#### Chronic Effects
Bifenthrin: Long-term exposure caused neurotoxicity (tremors and impaired gait) in the early exposure in animal studies, but tremors disappeared with continued exposure.
Environmental Hazard
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin</td>
<td>56-81-5</td>
<td>10-15</td>
</tr>
<tr>
<td>Bifenthrin</td>
<td>82657-04-3</td>
<td>17.7</td>
</tr>
<tr>
<td>2-Biphenylool</td>
<td>90-43-7</td>
<td>&lt;0.5</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 (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
Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Notes to Physician
This product contains 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

Suitable Extinguishing Media
Carbon dioxide (CO₂), Foam, Dry chemical, Soft stream or water fog only if necessary.

Hazardous Combustion Products
Carbon oxides, Hydrogen chloride, Hydrogen fluoride.

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 Hazards 2
Flammability 1
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 collect large liquid spills. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Do not allow material to enter storm or sanitary sewer system.

Methods for cleaning up
Sweep up and shovel into suitable containers for disposal. 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. Keep/store only in original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

<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>Glycerin 56-81-5</td>
<td>TWA: 15 mg/m³ TWA: 5 mg/m³</td>
<td></td>
<td></td>
<td>Mexico: TWA 10 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>British Columbia</th>
<th>Quebec</th>
<th>Ontario TWA EV</th>
<th>Alberta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin 56-81-5</td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 10 mg/m³</td>
</tr>
</tbody>
</table>

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 full-face elastomeric half mask respirator with appropriate cartridges and/or filters, which is approved for pesticides (U.S. NIOSH/MSHA, EU CEN or comparable certification organization).

Eye/Face Protection
For dust, splash, mist or spray exposure, wear chemical protective goggles.

Skin and Body Protection
Wear long-sleeved shirt, long pants, socks, shoes, and gloves.

Hand Protection
Protective gloves.
Hygiene measures

Clean water, preferably an eyewash station and a safety shower, 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Off-white Liquid</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Not identified</td>
</tr>
<tr>
<td>pH</td>
<td>6.92 (1% solution)</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash point</td>
<td>$&gt; 100 , ^\circ C / &gt; 212 , ^\circ F$</td>
</tr>
<tr>
<td>Density</td>
<td>9.05 lb/gal @ 25 °C</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Miscible with water.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>1369 cSt @ 25°C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability

Stable under recommended storage conditions.

Conditions to Avoid

Heat, flames and sparks.

Hazardous Decomposition Products


Hazardous polymerization

Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Contact</td>
<td>Moderately irritating (rabbit)</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Slightly irritating (rabbit)</td>
</tr>
<tr>
<td>LD50 Dermal</td>
<td>$&gt; 2000 , mg/kg$ (rat)</td>
</tr>
<tr>
<td>LD50 Oral</td>
<td>550 , mg/kg (female rat)</td>
</tr>
<tr>
<td>Inhalation LC50</td>
<td>$&gt; 2.08 , mg/l$ (Rat, male and female)</td>
</tr>
<tr>
<td>Sensitization</td>
<td>sensitizer</td>
</tr>
</tbody>
</table>

Chronic Effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic toxicity</td>
<td>Bifenthrin: Long-term exposure caused neurotoxicity (tremors and impaired gait) in the early exposure in animal studies, but tremors disappeared with continued exposure</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Bifenthrin: Weak treatment-related response for liver adenocarcinomas and benign bladder tumors (lesion) in male mice</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>Bifenthrin: Not genotoxic in animal studies</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Bifenthrin: No toxicity to reproduction in animal studies</td>
</tr>
</tbody>
</table>
Neurological effects

Bifenthrin: Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive salivation) following acute or subchronic exposure. Tremors disappeared with continued exposure.

Developmental toxicity

Bifenthrin: Not teratogenic in animal studies.

Target organ effects

Bifenthrin: Central Nervous System (CNS)

Ecotoxicity effects

<table>
<thead>
<tr>
<th>Bifenthrin (82657-04-3)</th>
<th>Duration</th>
<th>Species</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bifenthrin</td>
<td>96 h LC50</td>
<td>Fish</td>
<td>0.1</td>
<td>µg/L</td>
</tr>
<tr>
<td></td>
<td>72 h EC50</td>
<td>Algae</td>
<td>0.822</td>
<td>mg/L</td>
</tr>
<tr>
<td></td>
<td>48 h EC50</td>
<td>Crustacea</td>
<td>0.11</td>
<td>µg/L</td>
</tr>
<tr>
<td></td>
<td>21 d NOEC</td>
<td>Fish</td>
<td>0.012</td>
<td>µg/L</td>
</tr>
<tr>
<td></td>
<td>21 d NOEC</td>
<td>Crustacea</td>
<td>0.0013</td>
<td>µg/L</td>
</tr>
</tbody>
</table>

Environmental Fate

Persistence and degradability


Bioaccumulation

Bifenthrin: The substance has some potential to bioaccumulate in the environment.

Mobility

Bifenthrin: Immobile. Not expected to reach groundwater.

Waste disposal methods

Pesticide wastes are toxic. 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. Do not reuse or refill this container.

DOT

<table>
<thead>
<tr>
<th>Packaging Type</th>
<th>Bulk, Non-Bulk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>Pyrethroid pesticide, liquid, toxic</td>
</tr>
<tr>
<td>UN/ID no</td>
<td>UN3352</td>
</tr>
<tr>
<td>Hazard class</td>
<td>6.1</td>
</tr>
<tr>
<td>Packing Group</td>
<td>III</td>
</tr>
<tr>
<td>Marine Pollutant</td>
<td>Bifenthrin</td>
</tr>
<tr>
<td>Description</td>
<td>UN3352, Pyrethroid pesticide, liquid, toxic, (Bifenthrin), 6.1, III</td>
</tr>
</tbody>
</table>

TDG

<table>
<thead>
<tr>
<th>UN/ID no</th>
<th>UN3352</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>Pyrethroid pesticide, liquid, toxic</td>
</tr>
<tr>
<td>Hazard class</td>
<td>6.1</td>
</tr>
<tr>
<td>Packing Group</td>
<td>III</td>
</tr>
<tr>
<td>Marine Pollutant</td>
<td>Bifenthrin</td>
</tr>
<tr>
<td>Description</td>
<td>UN3352, Pyrethroid pesticide, liquid, toxic, (Bifenthrin), 6.1, III</td>
</tr>
</tbody>
</table>

ICAO/IATA

| UN/ID no                   | UN3352         |
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:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bifenthrin</td>
<td>82657-04-3</td>
<td>17.7</td>
<td>1.0</td>
</tr>
<tr>
<td>2-Biphenylol</td>
<td>90-43-7</td>
<td>&lt;0.5</td>
<td>1.0</td>
</tr>
</tbody>
</table>

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.

International Regulations

Mexico - Grade

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Carcinogen Status</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin</td>
<td></td>
<td>Mexico: TWA 10 mg/m³</td>
</tr>
</tbody>
</table>

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
- D1B - Toxic materials
- D2B - Toxic materials
16. OTHER INFORMATION

Revision date: 2014-07-23
Reason for revision: Initial Release.

Disclaimer
FMC Corporation believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. Use of this product is regulated by the U.S. Environmental Protection Agency (EPA). It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Further, since the conditions and methods of use are beyond the control of FMC Corporation, FMC corporation expressly disclaims any and all liability as to any results obtained or arising from any use of the products or reliance on such information.

Prepared By:

FMC Corporation

FMC Logo - Trademark of FMC Corporation

© 2014 FMC Corporation. All Rights Reserved.

End of Safety Data Sheet