1. PRODUCT AND COMPANY IDENTIFICATION

Product Code 2104100
Product Name SYLLIT FL FUNGICIDE
Synonyms Guanidine, Dodecyl-, Monoacetate; N-Dodecylguanidine Acetate
Formula Unspecified
CAS Number 2439-10-3 + other ingredients
EPA Registration Number 55260-6

Contact
ACETO AGRICULTURAL CHEMICALS CORP.
One Hollow Lane
Lake Success, NY 11042-1215
Phone: (516) 627-6000
Fax: (516) 627-6093
Email: regulatory@aceto.com

2. HAZARDS IDENTIFICATION

Emergency Overview
Harmful by inhalation, in contact with skin and if swallowed. Corrosive to eyes. Irritating to skin. May cause irritation of the mucous membranes. May cause irritation of respiratory tract. Dangerous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Marine pollutant.

Appearance White.
Physical State Liquid.
Odor Negligible

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

Mexico - Grade
Not available

Potential Health Effects

Principle Routes of Exposure Skin contact, Eye contact.
Acute Effects

Eyes

Skin
Harmful in contact with skin. Irritating to skin. Irritation may be caused by drying effects on the skin.

Inhalation

Ingestion
Harmful if swallowed. Abdominal pain. Nausea.

Additional Acute Effects
None reasonably foreseeable.

Chronic Effects
Avoid repeated exposure.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions
Not available

Interactions with Other Chemicals
Not available

Potential Environmental Effects
Dangerous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Marine pollutant.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**CAS Number**
2439-10-3 + other ingredients

**Formula**
Unspecified

#### Hazardous Components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dodine</td>
<td>2439-10-3</td>
<td>39.6</td>
</tr>
</tbody>
</table>

#### Non-hazardous Components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Ingredients</td>
<td>N/A</td>
<td>60.4</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**General Advice**
Show this safety data sheet to the doctor in attendance.

**Eye Contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician or Poison Control Centre immediately.
Skin Contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Call a physician or Poison Control Centre immediately.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or Poison Control Centre immediately.

Ingestion

Do not induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Centre immediately.

Notes to Physician

Treat symptomatically

Protection of First-aiders

Use personal protective equipment. Avoid contact with skin, eyes and clothing.

5. FIRE-FIGHTING MEASURES

Flammable Properties

The product is not flammable.

Suitable Extinguishing Media

Foam. Dry chemical. Carbon dioxide (CO2). Water spray. Water mist may be used to cool closed containers.

Unsuitable Extinguishing Media

Not available

Hazardous Combustion Products

Thermal decomposition or combustion may produce hazardous gases and/or materials.

Explosion Data

Sensitivity to mechanical impact

Not available

Sensitivity to static discharge

Not available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

NFPA

Health 2  Flammability 0  Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Evacuate personnel to safe areas. Use personal protective equipment. Avoid contact with skin, eyes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental Precautions

Local authorities should be advised if significant spillages cannot be contained. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Should not be released into the environment.

Methods for Containment

Not available
Methods for Cleaning up
Evacuate personnel to safe areas. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Clean contaminated surface thoroughly. Prevent product from entering drains.

Other Information
Not applicable

7. HANDLING AND STORAGE

Handling
Use only in an area equipped with a safety shower. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Avoid repeated exposure. In case of insufficient ventilation, wear suitable respiratory equipment.

Storage
Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labelled containers. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines
This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Controls
Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection
Tightly fitting safety goggles.

Skin Protection
Protective gloves. Long sleeved clothing.

Respiratory Protection
In case of insufficient ventilation wear suitable respiratory equipment.

General Hygiene Considerations
General industrial hygiene practice. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin, eyes and clothing. For environmental protection remove and wash all contaminated protective equipment before re-use. Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke. For additional information consult the EPA Pesticide Label.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Negligible</td>
</tr>
<tr>
<td>pH</td>
<td>5.8</td>
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<tr>
<td>Flash Point</td>
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</tr>
<tr>
<td>Autoignition Temperature</td>
<td>430°C</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>Lower Not available</td>
</tr>
<tr>
<td></td>
<td>Upper Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not available</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Chemical Stability
Stable under normal conditions.

Conditions to Avoid
Heat, flames and sparks.

Incompatible Materials
Strong acids. Alkalis.

Hazardous Decomposition Products
Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx).

Possibility of Hazardous Reactions
None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
LD50 Oral: > 5,000 mg/kg (rat)
LD50 Dermal: > 2,000 mg/kg (rabbit)

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dodine</td>
<td>660 mg/kg Oral LD50 Rat</td>
<td>2100 mg/kg Dermal LD50 Rabbit</td>
<td></td>
</tr>
</tbody>
</table>

Chronic Toxicity

Carcinogenicity
There are no known carcinogenic chemicals in this product.

Irritation
Dermal - Slight irritant; Ocular - Risk of serious damage to eyes

Corrosivity
Not available

Sensitization
Not available

Neurological Effects
Not available

Mutagenic Effects
Not available

Reproductive Effects
Not available
12. ECOLOGICAL INFORMATION

Ecotoxicity
Dangerous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Marine pollutant.

Persistence / Degradability
Not available

Bioaccumulation / Accumulation
Not available

Mobility in Soil
Not available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method
Contact waste disposal services. Dispose of in accordance with local regulations. Dispose of in accordance to EPA Pesticide Label Instructions.

Contaminated Packaging
Dispose of in accordance with local regulations. Dispose of in accordance to EPA Pesticide Label Instructions.

US EPA Waste Number
Not available

14. TRANSPORT INFORMATION

DOT
Proper Shipping Name
Environmentally hazardous substance, liquid, n.o.s
Hazard Class
9
UN-No
UN3082
Packing Group
III
Marine Pollutant
This product contains a chemical which is listed as a marine pollutant according to DOT.
Description
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Dodine, 40% solution), 9, PG III, Marine Pollutant

TDG
Proper Shipping Name
Environmentally hazardous substance, liquid, n.o.s
Hazard Class
9
UN-No
UN3082
Packing Group
III
Marine Pollutant
This product contains a chemical which is listed as a marine pollutant according to TDG.
Description
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Dodine, 40% solution), 9, PG III, Marine Pollutant
### MEX

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>Environmentally hazardous substance, liquid, n.o.s.</th>
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</thead>
<tbody>
<tr>
<td>Hazard Class</td>
<td>9</td>
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<tr>
<td>UN-No</td>
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<td>Packing Group</td>
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<tr>
<td>Description</td>
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### ICAO

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<td>Hazard Class</td>
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<td>Packing Group</td>
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<tr>
<td>Description</td>
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### IATA

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<td>9L</td>
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</table>

### IMDG/IMO

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Hazard Class</td>
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<tr>
<td>UN-No</td>
<td>UN3082</td>
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<tr>
<td>Packing Group</td>
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<tr>
<td>EmS No.</td>
<td>F-A, S-F</td>
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<tr>
<td>Marine Pollutant</td>
<td>This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO</td>
</tr>
<tr>
<td>Description</td>
<td>UN3082, Environmentally hazardous substance, liquid, n.o.s. (Dodine, 40% solution), 9, PG III, Marine Pollutant</td>
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### RID

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</thead>
<tbody>
<tr>
<td>Hazard Class</td>
<td>9</td>
</tr>
<tr>
<td>UN-No</td>
<td>UN3082</td>
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<tr>
<td>Packing Group</td>
<td>III</td>
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<td>Classification Code</td>
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### ADR

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>Environmentally hazardous substance, liquid, n.o.s.</th>
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</thead>
<tbody>
<tr>
<td>Hazard Class</td>
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</tr>
<tr>
<td>UN-No</td>
<td>UN3082</td>
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<tr>
<td>Packing Group</td>
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<td>Classification Code</td>
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<tr>
<td>Description</td>
<td>UN3082, Environmentally hazardous substance, liquid, n.o.s. (Dodine, 40% solution), 9, PG III, Marine Pollutant</td>
</tr>
</tbody>
</table>
**ADR/RID-Labels**

**9**

**ADN**

**Proper Shipping Name**: Environmentally hazardous substance, liquid, n.o.s

**Hazard Class**: 9

**UN-No**: UN3082

**Packing Group**: III

**Classification Code**: M6

**Special Provisions**: 274, 601

**Description**: UN3082, Environmentally hazardous substance, liquid, n.o.s. (Dodine, 40% solution), 9, PG III, Marine Pollutant

**Hazard Labels**: 9

**Limited Quantity**: LQ7

**Equipment Requirements**: PP

---

**15. REGULATORY INFORMATION**

**International Inventories**

<table>
<thead>
<tr>
<th>Country</th>
<th>TSCA</th>
<th>DSL</th>
<th>EINECS</th>
<th>ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.A. (TSCA)</td>
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<td></td>
<td></td>
<td>Does not Comply</td>
</tr>
<tr>
<td>Canada (DSL)</td>
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<tr>
<td>EU (EINECS)</td>
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<tr>
<td>EU (ELINCS)</td>
<td>Does not Comply</td>
<td></td>
<td></td>
<td>Does not Comply</td>
</tr>
<tr>
<td>Japan (ENCS)</td>
<td>Does not Comply</td>
<td></td>
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<td>Does not Comply</td>
</tr>
<tr>
<td>China</td>
<td>Does not Comply</td>
<td></td>
<td></td>
<td>Does not Comply</td>
</tr>
<tr>
<td>Korea (KECL)</td>
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<td></td>
<td></td>
<td>Does not Comply</td>
</tr>
<tr>
<td>Philippines (PICCS)</td>
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<td>Does not Comply</td>
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<tr>
<td>Australia (AICS)</td>
<td>Does not Comply</td>
<td></td>
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<td>Does not Comply</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>U.S.A. (TSCA)</th>
<th>Canada (DSL)</th>
<th>EU (EINECS)</th>
<th>EU (ELINCS)</th>
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<tbody>
<tr>
<td>Dodine</td>
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<td>219-459-5</td>
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<tr>
<td>Other Ingredients</td>
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<table>
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<tr>
<th>Chemical Name</th>
<th>Japan (ENCS)</th>
<th>China</th>
<th>Korea (KECL)</th>
<th>Philippines (PICCS)</th>
<th>Australia (AICS)</th>
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<tbody>
<tr>
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<td>Other Ingredients</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

This material as a whole is exempt from the TSCA Inventory // FIFRA Regulated Pesticide

**USA**

**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**

Dodine (CAS #: 2439-10-3)

**SARA 311/312 Hazardous Categorization**

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>Yes</td>
</tr>
</tbody>
</table>
2104100 - SYLLIT FL FUNGICIDE

Fire Hazard
No
Sudden Release of Pressure Hazard
No
Reactive Hazard
No

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contain any HAPs.

State Regulations
California Proposition 65
This product does not contain any Proposition 65 chemicals.

State Right-to-Know

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
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</thead>
<tbody>
<tr>
<td>Dodine</td>
<td></td>
<td>sn 3579</td>
<td></td>
<td></td>
<td></td>
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</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
Not determined

16. OTHER INFORMATION

Prepared By
Environmental Health and Safety, Regulatory Affairs
Preparation Date
27-Jan-2009
Revision Date
04-May-2009
Revision Summary
Not available

Disclaimer
The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS