Safety Data Sheet

Overture® 35 WP Insecticide

1. IDENTIFICATION: CHEMICAL PRODUCT AND COMPANY

PRODUCT NAME: Overture® 35 WP Insecticide
EPA REGISTRATION NUMBER: 59639-125
VC NUMBER(S): 1638
SYNONYM(S): S-1812 35 WP
PRODUCT DESCRIPTION: Insecticide

Overture is a registered trademark of Valent U.S.A. Corporation

MANUFACTURER/DISTRIBUTOR
VALENT U.S.A. CORPORATION
P.O. Box 8025
1600 Riviera Avenue, Suite 200
Walnut Creek, CA 94596-8025

EMERGENCY TELEPHONE NUMBERS
HEALTH EMERGENCY OR SPILL (24 hr.): (800) 892-0099
TRANSPORTATION (24 hr.): CHEMTREC (800) 424-9300 or (202) 483-7616

PRODUCT INFORMATION
AGRICULTURAL PRODUCTS: (800) 682-5368

The current SDS is available through our website (www.valent.com), or by calling the product information numbers listed above.

2. HAZARDS IDENTIFICATION

For EPA FIFRA-specific information see Section 15

Classification

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

Label elements

EMERGENCY OVERVIEW

Precautionary Statements - Prevention
Read product label prior to using this product. For specific handling instruction refer to Section 7, Handling and Storage

Precautionary Statements - Response
See Section 4, First Aid Measures
Precautionary Statements - Storage
For information on Storage and Handling see Section 7.

Precautionary Statements - Disposal
For further information on product and container disposal see Section 13.

Hazards not otherwise classified (HNOC)
Other Information
25% of the mixture consists of ingredient(s) of unknown toxicity

For information on Transportation requirements see Section 14.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Weight/ Percent</th>
<th>TRADE SECRET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridalyl</td>
<td>179101-81-6</td>
<td>34-36</td>
<td>TRADE SECRET</td>
</tr>
<tr>
<td>Kaolin clay</td>
<td>1332-58-7</td>
<td>1.5-4</td>
<td></td>
</tr>
<tr>
<td>Hydrated amorphous silica</td>
<td>7631-86-9</td>
<td>37-40</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>No CAS#</td>
<td>20-27</td>
<td></td>
</tr>
</tbody>
</table>

Other ingredients, which may be maintained as trade secrets, are any substances other than an active ingredient contained in this product. Some of these may be hazardous, but their identities are withheld because they are considered trade secrets. The hazards associated with the other ingredients are addressed in this document. Specific information on other ingredients for the management of exposures, spills, or safety assessments can be obtained by a treating physician or nurse by calling (800) 892-0099 at any time.

4. FIRST AID MEASURES

EMERGENCY NUMBER (800) 892-0099
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-892-0099 for emergency medical treatment information.

EYE CONTACT:
Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for 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.

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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

INHALATION:
Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, if possible. Call a poison control center or doctor for further treatment advice.
NOTES TO PHYSICIAN:
None

5.  FIRE FIGHTING MEASURES

Flash point °C  Not applicable
FLASH POINT:  Not applicable
FLASH POINT METHOD:  Not applicable
EXTINGUISHING MEDIA:  Water fog, carbon dioxide, foam, dry chemical
FLAMMABLE LIMITS IN AIR - LOWER (%):  Not applicable
FLAMMABLE LIMITS IN AIR - UPPER (%):  Not applicable

NFPA RATING:
   Health:  1
   Flammability:  1
   Reactivity:  0
   Special:  None

(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using professional judgement. Values were not available in the guidelines or published evaluations prepared by the National Fire Protection Association, NFPA.

FIRE FIGHTING INSTRUCTIONS:  Products of combustion from fires involving this material may be toxic. Avoid breathing smoke and mists. Avoid personnel and equipment contact with fallout and runoff. Minimize the amount of water used for fire fighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Decontaminate personal protective equipment and fire fighting equipment before reuse.

HAZARDOUS DECOMPOSITION PRODUCTS:  Normal combustion forms carbon dioxide, water vapor and may produce: Oxides of nitrogen and/or toxic chlorine compounds. Incomplete combustion can produce carbon monoxide.

6.  ACCIDENTAL RELEASE MEASURES

VALENT EMERGENCY PHONE NUMBER:  (800) 892-0099
CHEMTREC EMERGENCY PHONE NUMBER:  (800) 424-9300

OBSERVE PRECAUTIONS IN SECTION 8: PERSONAL PROTECTION
Stop the source of the spill if safe to do so. Contain the spill to prevent further contamination of the soil, surface water, or ground water. For additional spill response information refer to the North American Emergency Response Guidebook.

UN/NA NUMBER:  Not applicable  EMERGENCY RESPONSE GUIDEBOOK NO.:  Not applicable

FOR SPILLS ON LAND:

   CONTAINMENT:  Reduce airborne dust. Avoid runoff into storm sewers or other bodies of water.
   CLEANUP:  Clean up spill immediately. Vacuum or sweep up material and place in a chemical waste container. Wash area with soap and water. Pick up wash liquid with additional absorbent and place in a chemical waste container.

FOR SPILLS IN WATER:

   CONTAINMENT:  This material will disperse or dissolve in water. Stop the source of the release. Contain and isolate to prevent further release into soil, surface water and ground water.
CLEANUP: Clean up spill immediately. Absorb spill with inert material. Remove contaminated water for treatment or disposal.

7. HANDLING AND STORAGE

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

HANDLING:
Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, shoes plus socks. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and shoes immediately. Then wash thoroughly and put on clean clothing. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing.

Keep pesticide in original container. Do not store or transport near food or feed. Do not contaminate food or feed. Do not put concentrate into food or drink containers. Do not dilute concentrate in food or drink containers. Store in a cool, dry place, out of direct sunlight.

STORAGE:
Keep pesticide in original container. Do not store or transport near food or feed. Do not contaminate food or feed. Do not put concentrate into food or drink containers. Do not dilute concentrate in food or drink containers. Store in a cool, dry place, out of direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

EYES & FACE: Do not get this material in your eyes. Eye contact can be avoided by wearing safety glasses or goggles.

RESPIRATORY PROTECTION: Use this material only in well ventilated areas. If operating conditions result in airborne concentrations of this material, the use of an approved respirator is recommended.

SKIN & HAND PROTECTION: Avoid contact with skin or clothing. Skin contact can be minimized by wearing protective clothing including gloves. Remove contaminated clothing and wash before re-use.

EXPOSURE LIMITS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH Exposure Limits</th>
<th>OSHA Exposure Limits</th>
<th>Manufacturer’s Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridalyl</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Kaolin clay</td>
<td>2 mg/m³ TWA (respirable fraction)</td>
<td>15 mg/m³ TWA 5 mg/m³ TWA</td>
<td>None</td>
</tr>
<tr>
<td>Hydrated amorphous silica</td>
<td>10 mg/m³ (total amorphous dust); 3 mg/m³ (respirable nuisance particulate)</td>
<td>6 mg/m³ (total dust)</td>
<td>None</td>
</tr>
<tr>
<td>Others</td>
<td>Not known</td>
<td>Not known</td>
<td>Not known</td>
</tr>
</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Powder</td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
</tr>
<tr>
<td>Odor</td>
<td>Faint sweetness, Aromatic</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
</tr>
</tbody>
</table>
Overture® 35 WP Insecticide

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Extremes of temperature and direct sunlight.

Incompatible materials
None known based on information supplied.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

- Oral Toxicity LD<sub>50</sub> (rats) > 5,000 mg/kg  │  EPA Tox Category IV
- Dermal Toxicity LD<sub>50</sub> (rabbits) > 5,000 mg/kg  │  EPA Tox Category IV
- Inhalation Toxicity LC<sub>50</sub> (rats) > 2.26 mg/L  │  EPA Tox Category IV
- Eye Irritation (rabbits) Moderately irritating  │  EPA Tox Category III
- Skin Irritation (rabbits) Brief and/or minor irritation  │  EPA Tox Category IV

Emergency Telephone:  (800) 892-0099  
SDS NO.: 0378  
REVISION NUMBER: 1  
REVISION DATE: 04/13/2015
CARCINOGEN CLASSIFICATION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>OSHA - Select Carcinogens</th>
<th>NTP Carcinogen List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridalyl</td>
<td>Not listed</td>
<td>Carcinogen</td>
<td>Not listed</td>
</tr>
<tr>
<td>Kaolin clay</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Hydrated amorphous silica</td>
<td>Group 3</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Others</td>
<td>Not Known</td>
<td>Not listed</td>
<td>Not known</td>
</tr>
</tbody>
</table>

TOXICITY OF PYRIDALYL TECHNICAL

SUBCHRONIC: Effects on rats produced after 2 weeks of exposure to 7000 ppm pyridalyl technical included decreased body weight gain, increased leukocytes, increased serum cholesterol and other lipids, increased liver weight, and foamy or eosinophilic cells in the lungs. In a 4 week study in rats, increased serum lipids, decreased body weight gains, vacuolation of the adrenal and ovaries were observed at 700 ppm or higher. Compound related effects of pyridalyl technical noted in rats following 3-month exposures at dose levels of 1000 ppm or greater included effects on the liver, kidney, ovary, and lungs; decreased body weight gain; and changes in blood biochemistry. The NOEL in rats is 100 ppm. In a 3-month study at 3500 ppm, decreases in testosterone and estradiol were observed.

Compound related effects of pyridalyl technical noted in mice following 3-month exposures at dose levels of 700 ppm or greater included effects on the liver, kidney, adrenal and ovary; decreased hematocrit, hemoglobin and red blood cells; and other changes in blood biochemistry. The NOEL in mice is 70 ppm.

In a 3-month study in dogs, the effects produced at dose levels of 100 mg/kg/day or greater included changes in the lung, liver, kidney, adrenal, thymus and heart; decreased hemoglobin, hematocrit and red blood cells; decreased weight gain, clinical signs of toxicity and death (300 and 1000 mg/kg/day). The NOEL in dogs is 10 mg/kg/day.

CHRONIC/CARCINOGENICITY: Pyridalyl technical was tested in lifetime studies with mice and rats and in a one-year study with dogs. Treatment-related effects observed in the 2-year rat study at doses of 500 ppm or higher included increased motor activity, decreased body weight, body weight gain, food consumption and food efficiency, and changes in spleen color. The NOEL in the rat study was 100 ppm (3.40 mg/kg/day in males and 4.10 mg/kg/day in females) and no evidence of carcinogenicity was observed. In an 18-month study in mice, decreased body weight, body weight gain and food consumption, and increased liver and kidney weights were observed at doses of 1000 ppm or higher. While a slight increase in lung tumors was observed in females in the 2500 ppm group, the incidence was within historical control range and there were no indications of carcinogenic activity. The NOEL in mice was 50 ppm (male 5.04 mg/kg/day; female 4.78 mg/kg/day). Slight effects on the liver were observed in dogs exposed to 80 mg/kg/day for one year. The NOEL in dogs was 20 mg/kg/day.

DEVELOPMENTAL TOXICITY: In a developmental toxicity study of pyridalyl technical in rats, maternal toxicity was observed at doses of 50 and 250 mg/kg/day. The maternal NOEL was 10 mg/kg/day. Pyridalyl technical did not produce developmental effects in rats at doses up to 250 mg/kg/day. In a study with rabbits, maternal toxicity and developmental effects (decreased fetal weights) were observed at 150 mg/kg/day. The maternal and developmental NOELs in rabbits were 50 mg/kg/day.

REPRODUCTION: Pyridalyl technical was tested in a 2-generation rat reproduction study at doses of 40, 200 and 1000 ppm. The NOAEL for systemic toxicity in parental animals was 40 ppm based on decreased body weight, body weight gain and food consumption, increased testis, ovary, thyroid and lung weights, and histological changes in the thyroid and ovary at 200 ppm or higher. The NOAEL for reproductive effects was 40 ppm based on a delay in vaginal opening at 200 ppm and higher. The NOAEL for effects on the offspring was 40 ppm based on reduced mean body weights at 200 ppm and higher.
MUTAGENICITY: Pyridalyl technical was not mutagenic in the following *in vitro* assays: Ames Assay (gene mutation), HGPRT assay in CHO cells, and mouse micronucleus. It was positive in the *in vitro* chromosomal aberration assay. Pyridalyl technical was not mutagenic in the following *in vivo* assays: mouse micronucleus and unscheduled DNA synthesis.

TOXICITY OF OTHER INGREDIENTS:

This product contains a type of amorphous silica. Inhalation of the dust may produce some or all of the following signs and symptoms: coughing, bronchial irritation, chest discomfort and shortness of breath. Repeated exposure to amorphous silica dust has caused impaired pulmonary function and morphological lung changes in monkeys. Under identical exposure conditions, rats and guinea pigs were unaffected by amorphous silica dust.

IARC reviewed the data on amorphous silica in 1996 and concluded there was inadequate evidence from both epidemiology and experimental studies that amorphous silica is a carcinogenic risk factor. The organization concluded that amorphous silica is in Group 3.

For a summary of the potential for adverse health effects from exposure to this product, refer to Section 2. For information regarding regulations pertaining to this product, refer to Section 15.

### 12. ECOLOGICAL INFORMATION

**AVIAN TOXICITY:** Based upon EPA designation, pyridalyl technical is practically non-toxic to mallard ducks and slightly toxic to bobwhite quail. Test results include:

- Oral LD$_{50}$ bobwhite quail: >2,250 mg/kg
- Dietary LC$_{50}$ bobwhite quail: 1,133 ppm
- Dietary LC$_{50}$ mallard duck: > 5,620 ppm

**AQUATIC ORGANISM TOXICITY:** Based upon EPA designation, pyridalyl technical is slightly to very highly toxic to fish and aquatic invertebrates. Test results include:

- LC$_{50}$ (96 hr) Bluegill Sunfish: >24 mg/L
- LC$_{50}$ (96 hr) Rainbow Trout: 0.50 mg/L
- LC$_{50}$ (48 hr) Daphnia magna: 0.0038 mg/L
- LC$_{50}$ (96 hr) Mysid Shrimp: 0.001 mg/L
- EC$_{50}$ (96 hr) Oyster Shell Deposition: 0.82 mg/L
- EC$_{50}$ (96 hr) Green Algae: > 0.14 mg/L
- EC$_{50}$ (96 hr) Fresh Water Diatom: > 0.18 mg/L
- EC$_{50}$ (96 hr) Marine Diatom: > 0.12 mg/L
- EC$_{50}$ (7 day) Duckweed: > 0.17 mg/L

**OTHER NON-TARGET ORGANISM TOXICITY:** The contact LD$_{50}$ (48 hr) of Pyridalyl Technical to the honeybee is >25 µg/bee.

### 13. DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.
PRODUCT DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water when disposing of equipment washwater or rinsate. Open dumping is prohibited.

CONTAINER DISPOSAL: Non-refillable outer bag. Do not reuse or refill the outer bag. Completely empty bag into application equipment. Offer bag for recycling if available. If recycling is not available, then dispose of empty bag in a sanitary landfill or by incinerations, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

DISPOSAL METHODS: Check government regulations and local authorities for approved disposal of this material. Dispose of in accordance with applicable laws and regulations. Do not contaminate water, food or feed by disposal.

14. TRANSPORTATION INFORMATION

DOT (ground) SHIPPING NAME: Not regulated for domestic ground transport by U.S. DOT
EMERGENCY RESPONSE
GUIDEBOOK NO.: Not applicable
ICAO/IATA SHIPPING NAME: UN 3082 Environmentally Hazardous Substance, Liquid, N.O.S. (Pyridalyl), 9, III, Marine Pollutant
REMARKS: Single or inner packaging less than 5 L (liquid) or 5 Kg net (solids) excepted from Dangerous Goods regulations -- see UN Special Provision 375.
For U.S. Shipping, Emergency Response Guidebook No. 171
IMDG SHIPPING NAME: UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Pyridalyl), 9, III, Marine Pollutant
EMS NO.: F-A, S-A

15. REGULATORY INFORMATION

EPA-FIFRA LABEL INFORMATION THAT DIFFERS FROM OSHA-GHS REQUIREMENTS:

This material is a pesticide product registered by the EPA under FIFRA and is subject to certain labeling requirements under federal pesticide law. These requirements may differ from the classification criteria and hazard information required by OSHA GHS for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the FIFRA pesticide label:

EPA FIFRA SIGNAL WORD: CAUTION

- Causes moderate eye irritation
- Avoid contact with eyes, skin and clothing
- May cause brief and/or minor skin irritation
- Keep out of reach of children.

PESTICIDE REGULATIONS: All pesticides are governed under FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

U.S. FEDERAL REGULATIONS: Ingredients in this product are reviewed against an inclusive list of federal regulations. Therefore, the user should consult appropriate authorities. The federal regulations reviewed include: Clean Water Act, SARA, CERCLA, RCRA, DOT, TSCA and OSHA. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.
Hydrated amorphous silica
TSCA Inventory List - Present

Kaolin clay
TSCA Inventory List - Present

SARA (311, 312):
Immediate Health: Yes
Chronic Health: Yes
Fire: No
Sudden Pressure: No
Reactivity: No

STATE REGULATIONS: Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities. The state regulations reviewed include: California Proposition 65, California Directors List of Hazardous Substances, Massachusetts Right to Know, Michigan Critical Materials List, New Jersey Right to Know, Pennsylvania Right to Know, Rhode Island Right to Know and the Minnesota Hazardous Substance list. For Washington State Right to Know, see Section 8 for Exposure Limit information. For Louisiana Right to Know refer to SARA information listed under U.S. Regulations above. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

Kaolin clay
MA Right To Know Present
NJ Right To Know 4016
PA Right To Know Present
RI Right To Know Listed
MN Hazardous Substance Present

Hydrated amorphous silica
California - Directors List of Hazardous Substances Present
MA Right To Know Present
NJ Right To Know 1655
PA Right To Know Present
MN Hazardous Substance Carcinogen

Others
California Proposition 65 Not Listed

For information regarding potential adverse health effects from exposure to this product, refer to Sections 2 and 11.

16. OTHER INFORMATION

REASON FOR ISSUE: Updated information to meet OSHA Hazcom 2012 (GHS) regulations.
SDS NO.: 0378
EPA REGISTRATION NUMBER: 59639-125
REVISION NUMBER: 1
REVISION DATE: 04/13/2015
SUPERCEDES DATE: None
RESPONSIBLE PERSON(S): Valent U.S.A. Corporation, Corporate EH&S, (925) 256-2803
This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products is regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling. All necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

The information in this SDS is based on data available to us as of the revision date given herein, and believed to be correct. Contact Valent U.S.A. Corporation to confirm if you have the most current SDS.

Judgments as to the suitability of information herein for the individual's own use or purposes are necessarily the individual's own responsibility. Although reasonable care has been taken in the preparation of such information, Valent extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to the individual's purposes or the consequences of its use.

2015 Valent U.S.A. Corporation