Dow AgroSciences (Australia) Ltd. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. Product and Company Identification

Product Name
Success Neo™ Insecticide

Identified uses
Plant Protection Product

COMPANY IDENTIFICATION
Dow AgroSciences (Australia) Ltd.
A Subsidiary of The Dow Chemical Company
ABN 24 003 771 659
Level 5
20 Rodborough Rd
Frenchs Forest, NSW 2086
Australia

Customer Information Number: 1800-700-096
auscustomerservice@dow.com

EMERGENCY TELEPHONE NUMBER
24-Hour Emergency Contact: 61 3 9663 2130
Local Emergency Contact: 1800 033 882
For advice, contact a doctor (at once) or the Australian Poisons Information Centre: 131 126

In case of Transport Emergency Only Dial 000

2. Hazards Identification

HAZARDOUS SUBSTANCES CLASSIFICATION: Classified as hazardous to health according to the criteria of the National Occupational Health and Safety Commission, Australia

Risk Phrases:
R43 – May cause sensitization by skin contact
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:
S35 - This material and its container must be disposed of in a safe way.
S57 - Use appropriate containment to avoid environmental contamination.
3. Composition Information

<table>
<thead>
<tr>
<th>Component</th>
<th>Amount</th>
<th>Classification:</th>
<th>CAS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spinetoram J &amp; L (CAS# 187166-40-1 &amp; 187166-15-0)</td>
<td>11.7 %</td>
<td>R43; N: R50/53</td>
<td>935545-74-7</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>&lt;= 10.0%</td>
<td>Not classified.</td>
<td>57-55-6</td>
</tr>
<tr>
<td>Balance</td>
<td>&lt;= 85.0%</td>
<td>Not available</td>
<td></td>
</tr>
</tbody>
</table>

See Section 16 for full text of R-phrases.

4. First Aid Procedures

Consult the Poisons Information Centre (Australia 13 11 26) or a doctor in every case of suspected chemical poisoning. Never give fluids or induce vomiting if a patient is unconscious or convulsing regardless of cause of injury. If breathing difficulties occur seek medical attention immediately.

Description of first aid measures

General advice: If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). 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. Suitable emergency safety shower facility should be available in work area.

Eye Contact: Hold eyes 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 eyes. Call a poison control center or doctor for treatment advice. Suitable emergency eye wash facility should be available in work area.

Ingestion: No emergency medical treatment necessary.

Most important symptoms and effects, both acute and delayed

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of immediate medical attention and special treatment needed

No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. Fire Fighting Measures

Suitable extinguishing media

To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

Special hazards arising from the substance or mixture

Hazardous Combustion Products: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds.

Unusual Fire and Explosion Hazards: This material will not burn until the water has evaporated. Residue can burn. If exposed to fire from another source and water is evaporated, exposure to high temperatures may cause toxic fumes.

Advice for firefighters
Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the “Accidental Release Measures” and the “Ecological Information” sections of this (M)SDS.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

See Section 9 for related Physical Properties

HAZCHEM: 2X

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

7. Handling and Storage

Handling

General Handling: Keep out of reach of children. Do not swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Wash thoroughly after handling. Use with adequate ventilation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Storage

Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

8. Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Component</th>
<th>List</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>AU OEL</td>
<td>TWA Total vapour and particulates.</td>
<td>474 mg/m3 150 ppm</td>
</tr>
<tr>
<td></td>
<td>AU OEL</td>
<td>TWA Particulate.</td>
<td>10 mg/m3</td>
</tr>
<tr>
<td></td>
<td>WEEL</td>
<td>TWA Aerosol.</td>
<td>10 mg/m3</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.
Personal Protection
Eye/Face Protection: Use safety glasses (with side shields).
Skin Protection: Wear clean, body-covering clothing.
Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Use chemical resistant gloves classified under standard AS/NZS 2161.10: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Neoprene. Nitrile/butadiene rubber (“nitrile” or “NBR”). Polyvinyl chloride (“PVC” or “vinyl”). When prolonged or frequently repeated contact may occur, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to AS/NZS 2161.10) is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.
Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.
Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls
Ventilation: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Other Information
Selection and use of personal protective equipment should be in accordance with the recommendations in one or more of the relevant Australian/New Zealand Standards, including:
AS/NZS 1336: Recommended practices for eye protection in the industrial environment.
AS/NZS 1337: Eye protectors for industrial applications.
AS/NZS 1715: Selection, use and maintenance of respiratory protective devices.
AS/NZS 2161: Occupational protective gloves.
AS/NZS 2210: Occupational protective footwear.
AS 2919: Industrial clothing.

9. Physical and Chemical Properties

| Appearance |
| Physical State | Liquid. |
| Color | Off-white |
| Odor | Musty |
| Odor Threshold | No test data available |
| pH | 7.15 (@ 1 %) pH Electrode (1% aqueous suspension) |
| Melting Point | Not applicable |
| Freezing Point | No test data available |
| Boiling Point (760 mmHg) | No test data available. |
| Flash Point - Closed Cup | > 200 °C Closed Cup |
| Evaporation Rate (Butyl Acetate = 1) | No test data available |
| Flammability (solid, gas) | Not applicable to liquids |
| Flammable Limits In Air | Lower: No test data available |
| | Upper: No test data available |
| Vapor Pressure | Not applicable |
| Vapor Density (air = 1) | No test data available |
Specific Gravity (H2O = 1)  1.025 Digital Density Meter (Oscillating Coil)
Solubility in water (by weight)  Dispersible
Partition coefficient, n-octanol/water (log Pow)  No data available for this product. See Section 12 for individual component data.
Autoignition Temperature  > 400 °C 92/69/EEC A15 Ramped Temperature
Decomposition Temperature  No test data available
Dynamic Viscosity  No test data available
Kinematic Viscosity  No test data available
Explosive properties  No
Oxidizing properties  No. No significant increase (>5°C) in temperature.
Liquid Density  1.025 g/cm³ @ 20 °C Digital density meter

10. Stability and Reactivity

Reactivity
No dangerous reaction known under conditions of normal use.
Chemical stability
Thermally stable at typical use temperatures.

Possibility of hazardous reactions
Polymerization will not occur.
Conditions to Avoid: Active ingredient decomposes at elevated temperatures.

Incompatible Materials: None known.
Hazardous decomposition products
Decomposition products depend upon temperature, air supply and the presence of other materials. Toxic gases are released during decomposition.

11. Toxicological Information

Acute Toxicity
Ingestion
Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.
As product: LD50, rat, female > 5,000 mg/kg
Aspiration hazard
Based on physical properties, not likely to be an aspiration hazard.
Dermal
Prolonged skin contact is unlikely to result in absorption of harmful amounts.
As product: LD50, rat, male and female > 5,000 mg/kg
Inhalation
No adverse effects are anticipated from single exposure to mist. Based on the available data, respiratory irritation was not observed.
As product: LC50, 4 h, Aerosol, rat > 5.04 mg/l
Eye damage/eye irritation
May cause slight eye irritation. Corneal injury is unlikely.
Skin corrosion/irritation
Brief contact is essentially nonirritating to skin.
Sensitization
Skin
Did not demonstrate the potential for contact allergy in mice.
Respiratory
No relevant data found.
Repeated Dose Toxicity
For the active ingredient(s): In animals, has been shown to cause vacuolization of cells in various tissues. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use. For the minor component(s): In rare cases, repeated excessive exposure to propylene glycol may cause central nervous system effects. In animals, effects have been reported on the following organs after exposure to aerosols: Lung.

**Chronic Toxicity and Carcinogenicity**
For the active ingredient(s): Did not cause cancer in laboratory animals.

**Developmental Toxicity**
For the active ingredient(s): Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

**Reproductive Toxicity**
For the active ingredient(s): In animal studies, did not interfere with reproduction.

**Genetic Toxicology**
In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

### 12. Ecological Information

#### Toxicity
Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in the most sensitive species). Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

**Fish Acute & Prolonged Toxicity**
LC50, Lepomis macrochirus (Bluegill sunfish), semi-static test, 96 h: > 48.2 mg/l  
**Aquatic Invertebrate Acute Toxicity**
EC50, Daphnia magna (Water flea), semi-static test, 48 h, immobilization: > 42.8 mg/l  
**Aquatic Plant Toxicity**
EC50, diatom Navicula sp., Growth inhibition (cell density reduction), 72 h: 1.098 mg/l

**Toxicity to Above Ground Organisms**
oral LD50, Colinus virginianus (Bobwhite quail): > 2250 mg/kg bodyweight.  
oral LD50, Apis mellifera (bees): 0.32 micrograms/bee  
contact LD50, Apis mellifera (bees): 0.17 micrograms/bee

**Toxicity to Soil Dwelling Organisms**
LC50, Eisenia fetida (earthworms), 14 d: > 8,560 mg/kg

#### Persistence and Degradability

**Data for Component: Spinetoram J & L (CAS# 187166-40-1 & 187166-15-0)**
Material is expected to biodegrade only very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability. Surface photodegradation is expected with exposure to sunlight.

**OECD Biodegradation Tests:**

<table>
<thead>
<tr>
<th>Biodegradation</th>
<th>Exposure Time</th>
<th>Method</th>
<th>10 Day Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1 - 9.1 %</td>
<td>28 d</td>
<td>OECD 301B Test</td>
<td>fail</td>
</tr>
</tbody>
</table>

**Indirect Photodegradation with OH Radicals**

<table>
<thead>
<tr>
<th>Rate Constant</th>
<th>Atmospheric Half-life</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.24E-01 cm3/s</td>
<td>0.12 - 0.5 d</td>
<td>Measured</td>
</tr>
</tbody>
</table>

**Data for Component: Propylene glycol**
Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Biodegradation may occur under anaerobic conditions (in the absence of oxygen).

**OECD Biodegradation Tests:**

<table>
<thead>
<tr>
<th>Biodegradation</th>
<th>Exposure Time</th>
<th>Method</th>
<th>10 Day Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>81 %</td>
<td>28 d</td>
<td>OECD 301F Test</td>
<td>pass</td>
</tr>
<tr>
<td>96 %</td>
<td>64 d</td>
<td>OECD 306 Test</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

#### Bioaccumulative potential
Data for Component: **Spinetoram J & L (CAS# 187166-40-1 & 187166-15-0)**
- **Bioaccumulation:** Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).
- **Partition coefficient, n-octanol/water (log Pow):** 4.49
- **Bioconcentration Factor (BCF):** 348; Oncorhynchus mykiss (rainbow trout)

Data for Component: **Propylene glycol**
- **Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
- **Partition coefficient, n-octanol/water (log Pow):** -1.07 Measured
- **Bioconcentration Factor (BCF):** 0.09; Estimated.

**Mobility in soil**

Data for Component: **Spinetoram J & L (CAS# 187166-40-1 & 187166-15-0)**
- **Mobility in soil:** Potential for mobility in soil is low (Koc between 500 and 2000).
- **Henry’s Law Constant (H):** 3.5E-03 Pa*m3/mole.

Data for Component: **Propylene glycol**
- **Mobility in soil:** Given its very low Henry’s constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process. Potential for mobility in soil is very high (Koc between 0 and 50).
- **Partition coefficient, soil organic carbon/water (Koc):** < 1 Estimated.
- **Henry’s Law Constant (H):** 1.2E-08 atm*m3/mole Measured

**13. Disposal Considerations**

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

**14. Transport Information**

**ROAD AND RAIL TRANSPORT:**
Not dangerous goods under the ADG 7 when being transported in IBCs or other receptacles < 500 L (kg), (Special Provision AU01).

**IMDG**
- **Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
- **Technical Name:** Spinetoram
- **Hazard Class:** 9  
- **ID Number:** UN3082  
- **Packing Group:** PG III
- **EMS Number:** F-A,S-F
- **Marine pollutant:** Yes

**LIMITED QUANTITY**

**ICAO/IATA**
- **Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S
- **Technical Name:** Spinetoram
- **Hazard Class:** 9  
- **ID Number:** UN3082  
- **Packing Group:** PG III
- **Cargo Packing Instruction:** 964
- **Passenger Packing Instruction:** 964
LIMITED QUANTITY
Environmental Hazard: Yes
HAZCHEM CODE: 2X

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. Regulatory Information

APVMA APPROVAL NUMBER: 64109
POISON SCHEDULE: 5

Classification and User Label Information
Hazard Symbol:
N - Dangerous for the environment.

Risk Phrases:
R43 – May cause sensitization by skin contact
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:
S35 - This material and its container must be disposed of in a safe way.
S57 - Use appropriate containment to avoid environmental contamination.

16. Other Information

Risk-phrases in the Composition section
R43 May cause sensitization by skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Revision
Identification Number: 1006168 / 4069 / Issue Date 15.04.2014 / Version: Replaces May 2011
DAS Code: GF-1587
Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

<table>
<thead>
<tr>
<th>N/A</th>
<th>Not available</th>
</tr>
</thead>
<tbody>
<tr>
<td>W/W</td>
<td>Weight/Weight</td>
</tr>
<tr>
<td>OEL</td>
<td>Occupational Exposure Limit</td>
</tr>
<tr>
<td>STEL</td>
<td>Short Term Exposure Limit</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
</tr>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists, Inc.</td>
</tr>
<tr>
<td>DOW IHG</td>
<td>Dow Industrial Hygiene Guideline</td>
</tr>
<tr>
<td>WEEL</td>
<td>Workplace Environmental Exposure Level</td>
</tr>
<tr>
<td>HAZ_DES</td>
<td>Hazard Designation</td>
</tr>
</tbody>
</table>

Dow AgroSciences (Australia) Ltd. urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user’s responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer’s/user’s duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-
specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

© Dow Agrosciences Australia Ltd 2014