



# MATERIAL SAFETY DATA SHEET

## ECO INSECT CONTROL

**Date Issued:** April 2014 and is valid for 3 years from this date.

Page 1 of 7

**Revision:** 4

**Print Date:** 7/7/16

---

### 1. PRODUCT AND COMPANY IDENTIFICATION

**TRADE NAME:** ECO INSECT CONTROL

**SUPPLIER:** EFEKTO

PO BOX 652147

BENMORE

2010

**TEL No.** 0861 333586 office hours

**EMERGENCY TELEPHONE NUMBERS:**

**SPILLAGES:** 083 1233 911

**Fax:** 086 685 3129

**POISONINGS:**

**Tygerberg Hospital National Poison Centre** 021-9316129 (all hours)

**Griffon Poison Centre** 082 446 8946

**Use:** An insecticide for use in the home garden, as is indicated on the label.

---

### 2. HAZARDS IDENTIFICATION

- May cause skin and eye irritation.
- Toxic to aquatic organisms.
- May cause long-term adverse effects in the aquatic environment.

**Likely routes of exposure:**

Skin and eye contact, ingestion and inhalation.

**Eye:** May cause moderate eye irritation. Corneal injury is unlikely

**Skin contact:** Brief contact may cause slight skin irritation with local redness. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Did not cause allergic skin reactions when tested in guinea pigs.

**Ingestion:** Low toxicity if swallowed. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury

**Inhalation:** Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

**Cancer information:** Spinosad did not cause cancer in laboratory animals.

**Teratology (Birth defects):** Spinosad did not cause birth defects or any other fetal effects in laboratory animals, even at exposure levels having an adverse effect on the mother.

**Reproductive effects:** In laboratory animal studies on spinosad, effects on reproduction were seen only at doses that produced significant toxicity to the parent animals.



# MATERIAL SAFETY DATA SHEET

## ECO INSECT CONTROL

**Date Issued:** April 2014 and is valid for 3 years from this date.

Page 2 of 7

**Revision:** 4

**Print Date:** 7/7/16

---

**Mutagenicity:** For spinosad A, in-vitro and animal genetic toxicity studies were negative.

**Symbols:** N  
**Risk-Phrase(s):** R51/53  
**UN No.:** 3082

---

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Active ingredients:**

Active ingredients.	CAS No.:	EC No.:
Spinosyn A	131929-60-7	-
Spinosyn D 116 g/l[11.6%]	131929-63-0	-
Inerts	Trade secret	-

**Chemical Names:** 2-((6-Deoxy-2,3,4-tri-O-methyl- $\alpha$ -Lmannopyranosyl)oxy)-13-((5-(dimethylamino)tetrahydro-6-methyl-2Hpyran-2-yl)oxy)-9-ethyl 2,3,3a,5a,5b,6,9,10,11,12,13,14,16a,16btetradecahydro-14-methyl-1H-asindaceno(3,2-d)oxacyclododecin-7,15-dione (IUPAC) plus 2-((6-Deoxy-2,3,4-tri-O-methyl- $\alpha$ -Lmannopyranosyl)oxy)-13-((5-(dimethylamino)tetrahydro-6-methyl-2Hpyran-2-yl)oxy)-9-ethyl-2,3,3a,5a,5b,6,9,10,11,12,13,14,16a,16btetradecahydro-4,14-dimethyl-1H-asindaceno(3,2-d)oxacyclododecin-7,15-dione (IUPAC)

**Chemical Family:** Consists of two naturally occurring metabolites from the soil bacterium, *Saccharopolyspora spinosa*.

**Chemical Formula:** None

**NIOSH/RTECS No.:** -

---

### 4. FIRST-AID MEASURES

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

**Ingestion:**

Do not induce vomiting. Call a physician. The decision of whether to induce vomiting or not should be made by a physician.

**Eye Contact:**

Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

**Skin Contact:**

Wash off in flowing water or shower, use soap if available.

**Inhalation:**

Remove to fresh air. Consult a physician.

**Note to Physician:**

There is no specific antidote. Supportive care. Treatment based on judgement of physician in response to



# MATERIAL SAFETY DATA SHEET

## ECO INSECT CONTROL

**Date Issued:** April 2014 and is valid for 3 years from this date.

Page 3 of 7

**Revision:** 4

**Print Date:** 7/7/16

---

symptoms of patient.

---

### 5. FIRE-FIGHTING MEASURES

**Extinguishing media:** To extinguish residues of this product use water fog, carbon dioxide, dry chemical or foam.

**Hazardous Combustion Products:**

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

**Protection of Firefighters:**

Wear protective clothing and use self-contained breathing apparatus.

**Additional Information:**

Keep containers cool by spraying with water. Contain runoff to prevent entry into water or drainage systems.

---

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:**

Wear appropriate safety clothing and eye/face protection (see Section 8).

**Environmental Precautions:**

Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.

**Methods of Cleaning Up:**

Collect all waste material and place in closable marked containers. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.

---

### 7. HANDLING AND STORAGE

**Handling:**

Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work.

**Storage:**

Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

---

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure guidelines:**

Spinosad: Dow Agrosiences Industrial Hygiene Guide is 0,3 mg/m<sup>3</sup>, TWA

**Engineering Controls:**

Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for



# MATERIAL SAFETY DATA SHEET

## ECO INSECT CONTROL

**Date Issued:** April 2014 and is valid for 3 years from this date.

Page 4 of 7

**Revision:** 4

**Print Date:** 7/7/16

---

some operations.

**Respiratory Protection:**

For most conditions, no respiratory protection should be needed. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

**Hand/Skin Protection:**

Wear clean, long-sleeved, body-covering clothing. Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Nitrile. Neoprene. Polyvinyl chloride ("PVC" or "vinyl").

**NOTICE:** The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the glove supplier.

**For emergency conditions:** Use protective clothing impervious to this material. Selection of specific items will depend on operation.

**Eye/Face Protection:** Use safety glasses.

---

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Liquid  
**Colour:** White to light tan  
**Odour:** Mild  
**Water solubility:** Disperses  
**Flash point:** Not determined (water based)  
**Rel. density (water=1):** 1.04 g/cm<sup>3</sup> (approx.)  
**Boiling point/range:** 100 deg.C (approx.)  
**Log Pow:** < 3  
**BCF:** < 100

---

### 10. STABILITY AND REACTIVITY

**Chemical stability:** Is stable under normal storage conditions.  
**Conditions to avoid:** None known.  
**Materials to avoid:** Strong basic, acidic or oxidising materials.  
**Hazardous Decomposition Products:** None under normal conditions of storage and use.

---

### 11. TOXICOLOGICAL INFORMATION

**Ingestion:**

Low toxicity if swallowed.

**The oral LD<sub>50</sub> for rats:** >5000 mg/kg.

**The dermal LD<sub>50</sub> for rabbits:** >5000 mg/kg.

**Skin Contact:**

Prolonged skin contact is unlikely to result in absorption of harmful amounts.



# MATERIAL SAFETY DATA SHEET

## ECO INSECT CONTROL

**Date Issued:** April 2014 and is valid for 3 years from this date.

Page 5 of 7

**Revision:** 4

**Print Date:** 7/7/16

---

May cause slight skin irritation with local redness.

**Sensitisation:** Non-sensitising to guinea pig skin.

**Eye Contact:** May cause moderate eye irritation. Corneal injury is unlikely.

**Inhalation:** Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

**Mutagenicity:** For Spinosad A invitro and animal genetic toxicity studies were negative.

**Carcinogenicity and teratogenicity:** Spinosad does not cause cancer or cause birth defects.

**Reproductive effects:** Effects on reproduction were only seen in laboratory animals at doses that produced significant toxicity to parent animals.

---

### 12. ECOLOGICAL INFORMATION

Assessment largely or completely based on data for active ingredient.

**Avian Toxicity oral LD<sub>50</sub>:**

For bobwhite (*Colinus virginianus*) is >2000mg/kg.

For mallard duck is >2000mg/kg.

**Aquatic Toxicity:**

**Fish LC<sub>50</sub>:**

For rainbow trout (*Onchorynchus mykiss*) is 30 mg/L.

For bluegill (*Lepomis macrochirus*) is 5.9 mg/L.

For common carp (*Cyprinus carpio*) is 4.99 mg/L.

**Daphnia EC<sub>50</sub>:**

Acute for water flea *Daphnia magna* is 92.7 mg/L.

**Algae EC<sub>50</sub>:** for green algae is >100mg/L.

Growth inhibition (72hIC<sub>50</sub>) for marine diatom *Skeletonema costatum* is <1 mg/L.

Growth inhibition EC<sub>50</sub> in diatom (*Navicula* sp.) is <1 mg/L.

**Bees LD<sub>50</sub>:** is 0.05 microgram/bee.

Toxic to bees.

**Earthworm LD<sub>50</sub>:** is >970mg/kg.

**Persistence and Degradability:**

Spinosyn A:

Half-life in soils is dependent on soil type and conditions and is approximately 9-17 days.

Spinosyn D:

Half-life in soils is dependent on soil type and conditions and is approximately 14 days.

---

### 13. DISPOSAL CONSIDERATIONS

Very toxic to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators. Do not re-use container for any purpose.



# MATERIAL SAFETY DATA SHEET

## ECO INSECT CONTROL

**Date Issued:** April 2014 and is valid for 3 years from this date.

Page 6 of 7

**Revision:** 4

**Print Date:** 7/7/16

---

### 14. TRANSPORT INFORMATION

**UN No.:** 3082

#### ADR

**Proper shipping name:** Environmentally hazardous substance, liquid, n.o.s. (Contains Spinosad)

**Class:** 9

**Classification code:** M6

**Packaging group:** III

**Label:** 9

**Hazard ID no.:** 90

#### IMDG

**Proper shipping name:** Environmentally hazardous substance, liquid, n.o.s. (Contains Spinosad)

**Class:** 9 Marine pollutant

**Label:** 9

**Packing Group:** III

#### ICAO/IATA

**Proper shipping name:** Environmentally hazardous substance, liquid, n.o.s. (Contains Spinosad)

**Class:** 9

**Label:** 9

**Packing Group:** III

**Pack Instr. Passenger:** 911

**Pack Instr. Cargo:** 911

**Tremcard Nr. CEFIC :** 90GM6-III

---

### 15. REGULATORY INFORMATION

**Hazard Symbol :** N - Dangerous for the Environment

#### Risk Phrases :

**R51/53** Very 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

**National Legislation:** In accordance with the South African National Road Traffic Act, 1996 (Act 93 of 1996), the Fire Brigade Act, 1987 (Act 99 of 1987) and the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)

---

### 16. OTHER INFORMATION



# MATERIAL SAFETY DATA SHEET

## ECO INSECT CONTROL

**Date Issued:** April 2014 and is valid for 3 years from this date.

Page 7 of 7

**Revision:** 4

**Print Date:** 7/7/16

---

**Compiled by:** Danie Fourie

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

### REFERENCES

- Dow Agrosiences data.
  - ADR 2011, Part 3.
  - IMDG Code, 2005 Edition, Vol. 2.
  - IATA Dangerous goods regulations, Effective 1 January 2011
- 

**END OF MSDS.**