



SAFETY DATA SHEET

NATULAR™ G30

Effective Date: 1 June 2015

v.01

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SECTION 1. Identification of the Substance/Mixture and of the Company

1.1 Product Identifier

Formulation Identifier: Natular™ G30

EPA Registration Number: 8329-83

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses: Insecticide for control of mosquito and midge larvae

Uses Advised Against: See product label for use restrictions

1.3 Details of the Supplier of the Safety Data Sheet

Clarke Mosquito Control Products, Inc.
675 Sidwell Court
St. Charles, IL 60174 U.S.A.
+1 (630) 894-2000
Email: Clarke@clarke.com

1.4 Emergency Telephone Number

24-Hour Medical Emergency: POISON CONTROL Toll-free (800) 214 – 7753

24-Hour Transportation Emergency: INFOTRAC (800) 535-5053

SECTION 2. Hazards identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS (2012)

2.2 Classification of the Substance or Mixture

Acute Toxicity (Inhalation): Category 4

Pictogram:



Signal Word: Warning

Hazard statements: Harmful if inhaled

Precautionary Statements:

PREVENTION: Avoid breathing dust. Use only outdoors or in a well-ventilated area.

RESPONSE: If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.

2.3 Other Hazards Not Classifiable Under OSHA 2012 HCS

See product label for any additional hazards



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SECTION 3. Composition/Information on Ingredients

3.1 Components

Substance Name	CAS No.	Concentration % w/w
Spinosad:		2.50
Spinosyn A	131929-60-7	
Spinosyn D	131929-63-0	
Sand:		68.00
Quartz	14808-60-7	≤ 67.66
Aluminum Oxide	1344-28-1	≤ 12.92
Calcium Oxide	1305-78-8	≤ 0.748
Titanium Oxide	13463-67-7	≤ 0.476

Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

SECTION 4. First Aid Measures

4.1 Description of First Aid Measures

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed.

Inhalation: This product may release nuisance dust in handling or use. Exposure to dusts from this product may irritate the nose, throat, lungs, and upper respiratory tract. Acute exposure to dust is not likely to be hazardous.

4.3 Indication of Immediate Medical Attention and Special Treatment

Treatment: Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. For medical treatment information, contact the poison control hotline at 1-800-214-7753. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5. Fire-Fighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media: Water Fog, Carbon Dioxide (CO₂), Dry Chemical, Foam

Unsuitable Extinguishing Media: None known

5.2 Special Hazards Arising From the Substance or Mixture

Specific Hazards: Under fire conditions some components may decompose. Combustion products may include CO and NO_x.

5.3 Special Protective Equipment and Precautions for Fire-Fighters

Protection Against Fire: Wear positive pressure, self-contained breathing apparatus and protective firefighting clothing (includes fire-fighting helmet, coat, pants, boots, and gloves).

Special Procedures: Fight fires from a protected location. Dike fire control water for later disposal. Keep container cool by spraying with water.

SECTION 6. Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

General Precautions: Use appropriate protection (see section 8)



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Environmental Precautions: Prevent product from entering into drains and waterways. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities. See Section 12 for additional ecological information.

6.2 Methods and Material for Containment and Cleaning Up

Clean Up Methods: Collect all material with shovel or other instrument while using appropriate personal protection equipment, and place in closable marked containers. Use non-reactive absorbent to absorb small spills of rinsate and collect for disposal

SECTION 7. Handling and Storage

7.1 Precautions for Safe Handling

Handling: Keep out of reach of children. Do not take internally. Avoid contact with eyes and inhalation of dusts from product.

Hygiene Measures: Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

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 fertilizers. Keep out of reach of children.

SECTION 8. Exposure Controls / Personal Protection

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

8.1 Control Parameters

Component Name	CAS No.	List	Type	Value
Spinosyn A & Spinosyn D	131929-60-7 131929-63-0	DOW IHG	TWA	0.3 mg/m ³
Sand	14808-60-7	ACGIH	TWA	0.025 mg/m ³ respirable fraction
		NIOSH	TWA	0.05 mg/m ³ respirable dust
Quartz	14808-60-7	ACGIH	TWA	0.025 mg/m ³ respirable fraction
		NIOSH	TWA	0.05 mg/m ³ respirable dust
		OSHA	TWA	Mineral Dust (30) / (%SiO ₂ + 2) mg/m ³ Respirable Dust (10) / (%SiO ₂ + 2) mg/m ³
Aluminum Oxide	1344-28-1	ACGIH	TWA	1 mg/m ³ respirable fraction as <i>aluminum insoluble compounds</i>
		OSHA	TWA	15 mg/m ³ total dust 5 mg/m ³ respirable fraction
Calcium Oxide	1305-78-8	ACGIH	TWA	2 mg/m ³
		NIOSH	TWA	2 mg/m ³
		OSHA	TWA	5 mg/m ³
Titanium Oxide	13463-67-7	ACGIH	TWA	10 mg/m ³
		OSHA	TWA	15 mg/m ³ total dust



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8.2 Exposure controls

Engineering Controls: Use with adequate ventilation. Wash hands thoroughly after handling. Wash clothing before re-using.

Individual Protection Measures, such as Personal Protection Equipment:

Eye Protection: Safety Glasses, Goggles or Face Shield

Skin Protection: Wear suitable protective clothing

Hand Protection: It is good industrial hygiene practice to minimize skin contact. If required or preferred, use suitable protective chemical resistant gloves such as latex, nitrile, or neoprene.

Respiratory Protection: Natular™ G30 as formulated is not expected to form appreciable respirable dust from sand from use or attrition. A respirator is not required for normal use of this product. If needed or preferred, use suitable respiratory equipment such as a NIOSH standard N-95 respirator or dust mask.

SECTION 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance:	Granule
Color:	Tan/white
Odor:	Earthy scent
Odor Threshold:	Not Available
pH:	6.92
Melting Point:	Not Determined
Freezing Point:	Not Applicable
Initial Boiling Point:	Not Applicable
Flash Point:	Not Determined
Evaporation Rate:	Not Applicable
Flammability:	Not Determined
Explosion limits [U/L]:	Not Applicable
Vapor Pressure:	Not Applicable
Vapor Density:	Not Applicable
Relative Density:	1.284 g/mL
Solubility:	Not Determined
Partition Coefficient:	Not Determined
Auto-Ignition Temperature:	Not Determined
Viscosity:	Not Applicable
Decomposition Temperature:	Not Available
Explosive Properties:	Not Available
Oxidizing Properties:	Not Available

SECTION 10. Stability and Reactivity

10.1 Reactivity

Not Available

10.2 Chemical Stability

Stable under normal conditions



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10.3 Possibility of Hazardous Reactions

Hazardous Reactions: None under normal conditions

Hazardous Polymerization: Not known to occur

10.4 Conditions to Avoid

Protect from direct sunlight and excessive heat.

10.5 Incompatible Materials

Avoid contact with strong oxidizing agents, strong acids, strong bases

10.6 Hazardous Decomposition Products

None known under normal conditions of storage and use

SECTION 11. Toxicological Information

11.1 Information on Likely Routes of Exposure

Inhalation: This product may release nuisance dust in handling or use. Exposure to dusts from this product may irritate the nose, throat, lungs, and upper respiratory tract.

11.2 Information on Toxicological Effects

Acute Toxicity/Effects

Oral, Rat LD₅₀ : > 2,000 mg/kg-bw

Dermal, Rat LD₅₀ : > 4,000 mg/kg-bw

Inhalation, Rat LC₅₀ : > 4.08 mg/L

Skin Corrosion/Irritation:

Natular™ G30 is not a skin irritant

†Calcium Oxide (CAS# 1305-78-8), a component of sand, is classified as Skin Corrosion/Irritation Category 1C under the OSHA 2012 HCS.

Serious Eye Damage/Irritation:

Natular™ G30 is not an eye irritant

Skin Sensitization:

Natular™ G30 is not a skin sensitizer

STOT – Single Exposure:

Dust may cause mechanical irritation to the lungs.

Chronic Toxicity/Effects

Germ Cell Mutagenicity:

Natular™ G30 is not mutagenic.

Carcinogenicity:

Natular™ G30 is not considered carcinogenic.

Spinosad is not carcinogenic.

†Sand may cause cancer from repeated exposure via the inhalation route of exposure from respirable particles.

†Sand (CAS# 14808-60-7) and its primary constituent, Quartz (CAS# 14808-60-7) are classified as Carcinogenicity Category 1 under the OSHA 2012 HCS, IARC Group 1 – Carcinogenic, and an NTP Known Human Carcinogen.

†Titanium Oxide (CAS# 13463-67-7), a component of sand, is classified as Carcinogenicity Category 2 under the OSHA 2012 HCS, IARC Group 2B – Possible Carcinogen.

Reproductive Effects:

Spinosad, in laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.



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STOT – Repeated Exposure:

In animals, spinosad has been shown to cause vacuolation of cells in various tissues. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

†Sand may cause irritation and/or lung damage, including silicosis, fibrosis, and inflammation.

†Sand (CAS# 14808-60-7) and its constituent, Quartz (CAS# 14808-60-7), are classified as Specific Target Organ Toxicity- Repeat Exposure Category 1 under the OSHA 2012 HCS. Sand constituents, Aluminum Oxide (CAS# 1344-28-1), and Titanium Oxide (CAS# 13463-67-7), are classified as Specific Target Organ Toxicity- Repeat Exposure Category 2 under the OSHA 2012 HCS.

Additional Information:

†Natular™ G30 is a multi-layer coated sand-core granule. Natular™ G30 as formulated is not expected to form appreciable respirable dust from sand from use or attrition. Exposure to respirable sand particles from Natular™ G30 is not expected to occur due to the manner in which its constituents are bound.

SECTION 12. Ecological Information

12.1 Ecotoxicity

Product specific data is not available. Data referenced is in relation to the active ingredient, Spinosad. Spinosad is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

Toxicity to Fish: 96-hr Acute LC₅₀ 5.0 mg/L, Common Carp (*Cyprinus carpio*)
96-hr Acute LC₅₀ 5.9 mg/L, Bluegill Sunfish (*Lepomis macrochirus*)
96-hr Acute LC₅₀ 30 mg/L, Rainbow Trout (*Oncorhynchus mykiss*)

Toxicity to Aquatic Invertebrates: 48-hr Acute EC₅₀ 1.5-14.0 mg/L, Water Flea (*Daphnia magna*)
48-hr LC₅₀ > 7.9 mg/L, Mysid Shrimp (*Americamysis bahia*)

Toxicity to Aquatic Plants: 5-d EC₅₀ 8.1 mg/L, Blue Green Algae (*Anabaena flos-aquae*)

12.1 Persistence and Degradability

Product specific data not available. Data referenced is in relation to the active ingredient, Spinosad.

Log K_{ow}: Spinosyn A: 3.91; Spinosyn D: 4.38 (distilled water)

Bioaccumulation: Bioconcentration potential is low (BCF < 100)

Bioconcentration Factor: Spinosyn A: 19; Spinosyn D: 33 mL/g (fish)

Mobility in Soil: Potential for mobility in soil is low (K_{oc} between 500 and 2000)

Partition Coefficient, K_{oc}: 701

SECTION 13. Disposal Considerations

13.1 Waste Treatment and Disposal methods

Consult product label for disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of the Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

SECTION 14. Transport Information

14.1 DOT (US)

Not regulated (Bulk and Non-Bulk Quantities)



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14.2 IMDG (Vessel)

UN Number: 3077
Hazard Class: 9
Packing Group: III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S. (Spinosad)
Marine Pollutant: Yes

14.3 ICAO/IATA (Air transport)

UN Number: 3077
Hazard Class: 9
Packing Group: III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S. (Spinosad)
Environmental Hazard: Yes

SECTION 15. Regulatory Information

FIFRA Information: This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal Word: CAUTION

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS: Hazards to Humans and Domestic Animals: Harmful if swallowed. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Avoid contact with eyes or clothing. Wear protective eyewear (such as goggles, face shield, or safety glasses).

First Aid	
If swallowed:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have a 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 to an unconscious person.
If in eyes:	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with warm water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.• Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.	

Other Federal Regulations

SARA TITLE III CLASSIFICATION

Section 302: None

Section 311/312: Immediate (acute) hazard

Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

Aluminum Oxide (CAS 1344-28-1), fibrous forms

OSHA HAZARD COMMUNICATION STANDARD: This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. California Proposition 65: WARNING: This product contains a chemical known to the State of California to cause cancer and/or birth defects or other reproductive harm:

Titanium Oxide (CAS 13463-67-7), airborne, unbound particles of respiratory size

Quartz (silica, crystalline, CAS 14808-60-7), airborne particles of respirable size



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STATE RIGHT-TO-KNOW : National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

SECTION 16. Other Information

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

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