SAFETY DATA SHEET

This Safety Data Sheet complies with the Canadian Controlled Product Regulations, the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR 1910 (OSHA HCS), and the European Union Directives.

1. Product and Supplier Identification

1.1 Product: Coghlan's #8686 Mosquito Coils

1.2 Other Means of Identification: None

1.3 Product Use: Mosquito repellant coils

1.4 Restrictions on Use: None known

1.5 Producer: Coghlan's Ltd., 121 Irene Street, Winnipeg, Manitoba Canada, R3T 4C7

Telephone: +1(204) 284-9550
Facsimile: +1(204) 475-4127

Supplier: As above

1.6 Emergencies (24-hour number): +1(877) 264-4526

2. Hazards Identification

2.1 Classification of product or mixture
Note to reader: This product in an untested mixture and GHS classification is based on the classification of the ingredients and their concentrations. Proprietary ingredients, if any, do NOT exhibit any health effects not listed in this SDS.

GHS Classification: Acute Toxicity, Oral, Category 4
Acute Toxicity, Inhalation, Category 4
Acute Aquatic Toxicity, Category 1
Chronic Aquatic Toxicity, Category 1

2.2 GHS Label Elements, including precautionary statements

Pictogram:

Signal Word: Warning
GHS Hazard Statements:  
H302: Harmful if swallowed.  
H332: Harmful if inhaled.  
H400: Very toxic to aquatic life  
H410: Very toxic to aquatic life with long lasting effects

GHS Precautionary Statements:

**Prevention:**  
P261: Avoid breathing dust/fume/vapours.  
P264: Wash hands thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
P271: Use only outdoors or in a well-ventilated area.  
P273: Avoid release to the environment.

**Response:**  
P312: Call a POISON CENTER or doctor/physician if you feel unwell.  
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P330: Rinse mouth.  
P391: Collect spillage.

**Storage:**  
None

**Disposal:**  
P501: Dispose of contents/container in accordance with local regulations, following product label directions.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS: None

2.4 Additional Information

**Primary Routes of Entry:**

<table>
<thead>
<tr>
<th>Route</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Contact</td>
<td>No</td>
</tr>
<tr>
<td>Skin Absorption</td>
<td>Yes</td>
</tr>
<tr>
<td>Eye Contact</td>
<td>No</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Yes</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Emergency Overview:** This product is ignited to effect repelling mosquitoes. When ignited, contact with skin can cause severe burns. Vapours and fumes created by burning the coils/sticks can be harmful if inhaled. May cause respiratory irritation if the smoke is inhaled. Do not inhale vapours or smoke from ignited coils or sticks. Prolonged exposure to these vapours through inhalation may cause headache and/or nausea. Only use outdoors.

**Effects of Short-Term (Acute) Exposure:**

**Inhalation:** Ensure that a burning coil or stick is not upwind of persons close. Prolonged inhalation of the smoke may cause respiratory irritation and headache and/or nausea.

**Skin Contact:** Contact with coils/sticks is unlikely to cause any skin irritation. Skin rash may occur in persons predisposed to skin problems. Residue on skin from handling is not expected to cause any health effects except if ingested by touching mouth. Wash hands after handling stick or coils. Skin absorption has shown health effects in animal testing.

**Eye Contact:** Smoke or vapours from the burning coils/sticks may cause transient eye discomfort.

**Ingestion:** Accidental ingestion may cause stomach upset and in case of gross consumption headache, nausea and dizziness. Immediately contact a POISON CONTROL CENTER, doctor or nearest hospital for treatment advice.
Coghlan’s #8686 Mosquito Coils

Effects of Long-Term (Chronic) Exposure: No adverse health effects are indicated. Acute health effects are more serious.

Medical Conditions Aggravated By Exposure: None known

### 3. Composition

#### 3.1 Mixture composition

<table>
<thead>
<tr>
<th>Component</th>
<th>% (w/w)</th>
<th>GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-cis trans Allethrin CAS No 584-79-2</td>
<td>0.20</td>
<td>Acute Toxicity, Oral, Category 4, H302</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Toxicity, Inhalation, Category 4, H332</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Aquatic Toxicity, Category 1, H400</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chronic Aquatic Toxicity, Category 1, H410</td>
</tr>
<tr>
<td>Other Non-hazardous ingredients or those below disclosure requirements</td>
<td>99+</td>
<td>No GHS Classification</td>
</tr>
</tbody>
</table>

### 4. First Aid Measures

#### 4.1 Description of First Aid Measures

**General advice:** If ingested, immediately call a POISON CONTROL CENTER, doctor or nearest hospital for treatment advice. There is no antidote. If a large amount has been ingested and emesis has been unsuccessful, lavage the stomach and otherwise treat systematically. Wash hands after handling. Do not eat drink or smoke until washing the hands.

**In case of eye contact:** Immediately flush eyes with plenty of water. If irritation occurs or persists, flush eyes with plenty of fresh water, holding eyelids open. Remove contact lenses if easy to do. Call a physician if an irritation persists.

**In case of skin contact:** Wash hands immediately with soap and water after handling. Do not eat, drink or smoke until hands are thoroughly washed. If irritation occurs or persists seek medical advice.

**If inhalation:** Inhalation is a route of entry. Do not sit downwind of smoke. Use only outdoors. If excessive smoke is inhaled, remove victim to fresh air. If breathing is labored, give artificial respiration. Seek medical attention if breathing is difficult or discomfort occurs.

**If ingestion:** This product is orally toxic if ingested. If ingested immediately call a POISON CONTROL CENTER, doctor or nearest hospital for treatment advice. Provided that patient is conscious, rinse mouth with water. Do NOT give anything to an unconscious person. Do not induce vomiting unless instructed to do so by a physician or the poison control center. If spontaneous vomiting occurs, have victim lean forward with head between knees to avoid aspirating vomitus, Rinse mouth and give water.

#### 4.2 Most important symptoms and effects, both acute and delayed

**Effects of Short-Term (Acute) Exposure:**

**Inhalation:** Ensure that a burning coil or stick is not upwind of persons close. Prolonged inhalation of the smoke may cause respiratory irritation and headache and/or nausea.

**Skin Contact:** Contact with coils/sticks is unlikely to cause any skin irritation. Skin rash may occur in persons predisposed to skin problems. Residue on skin from handling is not expected to cause any health effects except if ingested by touching mouth. Wash hands after handling stick or coils. Skin absorption has shown health effects in animal testing.
Eye Contact: Smoke or vapours from the burning coils/sticks may cause transient eye discomfort.

Ingestion: Accidental ingestion may cause stomach upset and in case of gross consumption headache, nausea and dizziness. Immediately contact a POISON CONTROL CENTER, doctor or nearest hospital for treatment advice.

Effects of Long-Term (Chronic) Exposure: No adverse health effects are indicated. Acute health effects are more serious.

Medical Conditions Aggravated by Exposure: None known

4.3 Indication of any immediate medical attention and special treatment needed
In the case of accidental ingestion, it is important to get treatment immediately.

5. Fire Fighting Measures

5.1 Extinguishing Media

Suitable extinguishing media: Product is flammable. When ignited, submerge in water if safe to do without burning the skin. For individual coils/sticks, cover with sand and then wet the sand. For larger quantities, use foam, carbon dioxide, dry powder, Halon extinguishent, or water fog/mist. Avoid the use of water jet.

5.2 Special hazards arising from mixture: Water used to extinguish the fires can damage the aquatic environment. Contain water runoff by use of earth dikes.

Advice for firefighters: In any fire situation, firefighters should wear full protective clothing including self contained breathing apparatus. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

5.3 Further Information:

Sensitivity to Impact: No
Sensitivity to Static Discharge: No

HAZARDOUS MATERIALS INFORMATION SYSTEM (HMIS) HAZARD INDEX:

HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 0
PERSONAL PROTECTION: None

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

All spill responders involved in a cleanup of this product must follow good industrial hygiene practices. A small spill can be handled routinely. Wear suitable protective equipment and eye protection to prevent skin and eye contact. Wear self-contained breathing apparatur.

Respiratory Protection: To avoid inhaling smoke/vapours, use self-contained breathing apparatus.

Skin protection: Wear suitable protective equipment to prevent skin contact.

Eye and Face Protection: Wear chemical goggles or full face protection.
6.2 Environmental precautions

This product may cause damage to the aquatic environment. Ensure that spilled material does not enter sewers or natural waterways. If spill catches fire, the water used to extinguish the fire will contain a chemical that is toxic to aquatic life.

6.3 Methods and materials for containment and cleanup

Clean up spills immediately to protect human health and the environment. Scoop or sweep up material, keeping dust to a minimum and place in an appropriate container for disposal. If on soil, skim top layer of contaminated soil and place in an appropriate container for disposal. Once the spill has been remediated, arrange for disposal of the containers. Properly label containers to identify contents.

Remedial Measures: Do not use unprotected hands to collect spilled material. Ensure proper protective equipment is used to prevent contact with skin and eyes. Avoid the creation of dust.

Large Spills: Shovel spilled product into adequate compatible containers, skimming soil as well to ensure all released product and contaminated soil is recovered. Properly close and label all containers for disposal.

Small Spills: Scoop or sweep up spilled contents and place in appropriate containers for disposal.

6.4 Reference to other sections

For disposal, see Section 13.

7. Handling and Storage

7.1 Precautions for safe handling

Handling Procedures: While handling coils/sticks, a residue on skin may be transferred to mouth by accident. Wash thoroughly and immediately after handling this product and before eating, drinking or smoking.

7.2 Conditions for safe storage, including incompatibilities

Storage: Keep out of reach of children and animals. Keep container closed when not in use and store in a dry area away from heat. Protect from sparks, heat or flame. Store separate from animal or human foodstuffs.

7.3 Specific end use(s)

No other uses except those mentioned in Section 1.2

8. Exposure Controls, Personal Protection

8.1 Control parameters

Components with workplace control parameters

This product does not contain any ingredient with a known workplace exposure limit.

8.2 Exposure Controls
9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid, shaped as coil or stick, woody green colour</td>
</tr>
<tr>
<td>Odour</td>
<td>None</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not applicable</td>
</tr>
<tr>
<td>pH</td>
<td>Not determined</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Initial Boiling Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Upper Explosion Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower Explosion Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>0.17 mPa @ 21.6°C (d-cis trans Allethrin)</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>1.009 g/ml @ 20°C (d-cis trans Allethrin)</td>
</tr>
<tr>
<td>Relative Density</td>
<td>0.309-362 gm/cc (water = 1)</td>
</tr>
<tr>
<td>Solubility</td>
<td>In water, 5 mg/l @ 25°C</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Log Pow = 4.95 (d-cis trans Allethrin)</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Not available</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not available</td>
</tr>
<tr>
<td>Percent Volatiles</td>
<td>Not available</td>
</tr>
</tbody>
</table>

9.2 Other safety information: None

10. Stability and Reactivity

10.1 Reactivity
Not reactive

10.2 Chemical Stability
Stable under recommended storage conditions. Storage should be in a dry, cool area.

10.3 Possibility of hazardous reactions
No known hazardous reactions
10.4 **Conditions to avoid**
Fire. During fire, irritating and possible toxic gases may be generated by thermal decomposition or combustion.

10.5 **Incompatible materials**
Strong oxidizing agents.

10.6 **Hazardous decomposition products**
Irritating and possible toxic gases may be generated by thermal decomposition or combustion.

## 11. Toxicological Information

11.1 **Information on toxicological effects**

### Acute toxicity
Acute toxicity, oral. Category 4, H302: Harmful if swallowed.
Acute Toxicity, Inhalation, Category 4, H332: Harmful if inhaled

### Skin corrosion/irritation
No GHS classification

### Serious eye damage/eye irritation
No GHS classification

### Respiratory or skin sensitization
No GHS classification

### Germ Cell Mutagenicity
No GHS classification

### Carcinogenicity
No GHS classification

### Reproductive toxicity
No GHS classification

### Specific Target Organ Toxicity – Single exposure
No GHS classification

### Specific Target Organ Toxicity – Repeated exposure
No GHS classification

### Aspiration Hazard
No GHS classification

### Aquatic Toxicity
Acute Aquatic Toxicity, Category 1: H400: Very toxic to aquatic life
Chronic Aquatic Toxicity, Category 1: H410: Very toxic to aquatic life with long lasting effects

### Additional information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD&lt;sub&gt;50&lt;/sub&gt;</th>
<th>LC&lt;sub&gt;50&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-cis trans Allethrin</td>
<td>685 mg/kg (oral/rat)</td>
<td>&gt;2000 mg/m³ (inh, rat/4 hr)</td>
</tr>
<tr>
<td>CAS No 584-79-2</td>
<td>11332 mg/kg (dermal/rabbit)</td>
<td></td>
</tr>
</tbody>
</table>
12. Ecological Information

12.1 Toxicity

Aquatic, Acute Aquatic Toxicity, Category 1: H400: Very toxic to aquatic life

Aquatic, Chronic Aquatic Toxicity, Category 1: H410: Very toxic to aquatic life with long lasting effects

Data: d-cis trans Allethrin, CAS No 584-79-2

LC50 (Cyprinus Carpio) (Carp), 0.032 – 0.134 mg/l, 96 hr
EC50 (Daphnia pulex) Water Flea, 0.021 mg/l 48hr

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
Not conducted

12.6 Other adverse effects
No data available

13. Disposal Considerations

13.1 Waste treatment methods

Product:
Do not reuse empty containers. Dispose of product according to all applicable local, state (provincial), and federal regulations. Offer to a licensed disposal company, properly contained and labelled.

Contaminated Packaging:
As above

14. Transport Information

<table>
<thead>
<tr>
<th>UN No.</th>
<th>Proper Shipping Name</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN3077</td>
<td>Environmentally hazardous substance, solid, N.O.S. (allethrin)</td>
<td>9</td>
<td>III</td>
<td>UN3077, Environmentally hazardous substance, solid, N.O.S. (allethrin)</td>
</tr>
</tbody>
</table>
Special Provisions: Packaging(s), IBCs, or any other receptable not exceeding 450kg(L) is not subject to this code.

United States Department of Transport (49CFR): Not regulated.
Special Provisions: Per subsection 173.155, limited quantities of class 9, packing group III that are transported in inner packaging not over 5.0 L for liquids or 5kg for solids net capacity are exempt from labeling, placard, and shipping document requirements.

International Air Transport Association (IATA): Not regulated.
Special Provisions: Per provision A158, sealed packets and articles containing less than 10mL or 10g (net) of an environmentally hazardous material are not subject to these regulations.

International Maritime Organization (IMO): Not regulated.
Special Provisions: Per provision A158, sealed packets and articles containing less than 10mL or 10g (net) of an environmentally hazardous material are not subject to these regulations.

15. Regulatory Information

CANADIAN FEDERAL REGULATIONS:
CEPA, DOMESTIC SUBSTANCES LIST: Listed

AMERICAN FEDERAL REGULATIONS:
US Federal Regulations: This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List. CERCLA/SARA Hazardous Substances - Not applicable.

CERCLA Hazardous Substance List (40 CFR 302.4) Not regulated

SARA 302 Extremely hazardous substance: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Hazardous chemical: Acute health hazard((d-cis trans Allethrin)

SARA 313 (TRI reporting): SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Other State Regulations:
Massachusetts Right to Know Components: No components are subject to the Massachusetts Right to Know Act
Pennsylvania Right to Know Components: d-cis trans Allethrin, CAS No 584-79-2
Rev Date 1989-12-01
New Jersey Right to Know Components: d-cis trans Allethrin, CAS No 584-79-2
Rev Date 1989-12-01
California Prop 65 Components: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

OTHER:
16. Other Information

Original Preparation Date: October 13, 2015

Prepared by: Technical Department, Coghlan’s Ltd.

Disclaimer: This Safety Data Sheet (SDS) was prepared using information provided by CCINFO, ingredient supplier SDS and other relevant sources. This product has been classified using weight of evidence, expert judgment and previous testing as per Part 1.3 of the Seventh Edition of The Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The information in this SDS is offered for your consideration and guidance when exposed to this product. Coghlan’s Ltd expressly disclaims all expressed or implied warranties and assumes no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of Coghlan’s Ltd.

Revisions:
Reviewed and re-issued February 12, 2019
Updated Section 14 and removed #0111 Mosquito Sticks from the MSDS June 26, 2019