SECTION 1: Identification

1.1. Identification

Product form: Mixture
Product name: KANEMITE® 15 SC MITICIDE
Other means of identification: EPA Reg. No. 66330-38 / PMRA No. 28641

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture: Acaracide
Restrictions on use: For professional users only

1.3. Details of the supplier of the safety data sheet

Arysta LifeScience North America, LLC
15401 Weston Parkway, Suite 150
Cary, NC 27513 - USA
T 1-866-761-9397

Arysta LifeScience
400 Michener Road, Unit 2
Guelph, Ontario
N1K 1E4

1.4. Emergency telephone number

Emergency number: Exposure calls (PROPHARMA): 1-866-303-6952 or +1-651-603-3432 (international)
Spill calls (CHEMTREC) (Contract # CCN1779): +1-800-424-9300 or +1-703-527-3887 (international)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS classification
Acute Tox. 4 (Inhalation;dust,mist) H332
Eye Irrit. 2B  H320
STOT SE 1  H370
STOT RE 2  H373
Aquatic Acute 1 H400
Aquatic Chronic 2 H411

Full text of hazard classes and H-statements: see section 16

2.2. Label elements

GHS labelling
Hazard pictograms (GHS):

Signal word (GHS): Danger
Hazard statements (GHS):
H320 - Causes eye irritation.
H332 - Harmful if inhaled.
H370 - Causes damage to organs.
H373 - May cause damage to organs through prolonged or repeated exposure.
H400 - Very toxic to aquatic life.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS):
P260 - Do not breathe mist, spray, vapours.
P261 - Avoid breathing mist, spray, 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.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P307+P311 - If exposed: Call a poison center/doctor
P312 - Call a doctor if you feel unwell
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see First aid measures on this label)
P337+P313 - If eye irritation persists: Get medical advice/attention.
P391 - Collect spillage.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards
No additional information available

2.4. Unknown acute toxicity (GHS US)
5% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
5% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
5% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>% (w/w)</th>
<th>GHS classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-dodecyl-1,4-dioxo-1,4-dihyronaphthalen-2-yl acetate (Acequinocyl) (Active)</td>
<td>(CAS-No.) 57960-19-7</td>
<td>15.8</td>
<td>Eye Irr. 2B, H320, Skin Sens. 1, H317, STOT SE 1, H370, STOT RE 2, H373, Aquatic Acute 1, H400, Aquatic Chronic 1, H410</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: Never give anything by mouth to an unconscious person. Call a POISON CENTER/doctor.

First-aid measures after inhalation: If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

First-aid measures after skin contact: Wash skin with mild soap and water.

First-aid measures after eye contact: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.

First-aid measures after ingestion: Rinse mouth. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects: Causes damage to organs (whole body, liver, blood). May cause damage to organs (whole body, liver, blood) (through prolonged or repeated exposure).

Symptoms/effects after inhalation: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.

Symptoms/effects after eye contact: Causes eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

All treatments should be based on observed signs and symptoms of distress in the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media


Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard: No particular fire or explosion hazard.

Reactivity: No dangerous reactions known.
5.3. Advice for firefighters

Firefighting instructions: Cool adjacent structures and containers with water spray to protect and prevent ignition. Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Avoid all eye and skin contact and do not breathe vapour and mist. Process enclosures, closed systems, and local exhaust ventilation should be used to control exposures.

6.1.1. For non-emergency personnel

Protective equipment: Wear suitable gloves. In case of inadequate ventilation wear respiratory protection.

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Wear suitable gloves. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment.

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Prevent dispersion.

6.3. Methods and material for containment and cleaning up

For containment: Absorb and/or contain spill with inert material, then place in suitable container.

Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Take up in non-combustible absorbent material and shove into container for disposal.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Do not breathe mist, spray, vapours. Use only outdoors or in a well-ventilated area.

Hygiene measures: Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Do not store near food, foodstuffs, drugs, or potable water supplies. Keep only in the original container in a cool well ventilated place. Keep container tightly closed.

Incompatible products: None known.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>KANEMITE® 15 SC MITICIDE</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>Not applicable</td>
<td>OSHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

3-dodecyl-1,4-dioxo-1,4-dihydronaphthalen-2-yl acetate (Acequinocyl) (57960-19-7)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>Not applicable</td>
<td>OSHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls

Appropriate engineering controls: Avoid creating mist or spray. Avoid splashing. Ensure good ventilation of the work station.
8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:
Avoid all unnecessary exposure.

Hand protection:
Wear suitable gloves resistant to chemical penetration. barrier laminate. Butyl rubber. nitrile rubber gloves. neoprene. PVC. Viton. (> = 14 mils)

Eye protection:
Chemical goggles or safety glasses

Respiratory protection:
Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear appropriate mask. Use an approved respirator equipped with oil/mist cartridges.

Other information:
Do not eat, drink or smoke when using this product.

SECTION 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>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>pale Yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>Detergent-like.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>7.1</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>100 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 93 °C</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.02 - 1.05 @ 20 °C</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>405.95 cP cS</td>
</tr>
</tbody>
</table>

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.
10.4. Conditions to avoid
None known.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products
Burning produces irritating, toxic and noxious fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Likely routes of exposure</th>
<th>Acute toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin and eye contact; Inhalation</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

**KANEMITE® 15 SC MITICIDE**

<table>
<thead>
<tr>
<th>LD50 oral rat</th>
<th>5000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>4.49 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>5000 mg/kg bodyweight</td>
</tr>
<tr>
<td>ATE US (vapours)</td>
<td>4.49 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust,mist)</td>
<td>4.49 mg/l/4h</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Not classified
(Non-irritating to skin in rabbits.)

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitisation: Not classified.

Germ cell mutagenicity: Not classified.

Reproductive toxicity: Not classified.

STOT-single exposure: Causes damage to organs.

STOT-repeated exposure: May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: Not classified.

Symptoms/effects after inhalation: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.

Symptoms/effects after eye contact: Causes eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

<table>
<thead>
<tr>
<th>Ecology - water</th>
<th>Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.</th>
</tr>
</thead>
</table>

**KANEMITE® 15 SC MITICIDE**

<table>
<thead>
<tr>
<th>LC50 fish 1</th>
<th>65 mg/l 96 h Oncorhynchus mykiss</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 other aquatic organisms 1</td>
<td>0.93 mg/l 96 h Pseudukirchneriella subcapitata</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>0.0154 mg/l 48 h</td>
</tr>
<tr>
<td>EC50 other aquatic organisms 1</td>
<td>0.00236 mg/l 48 h Daphnia magna</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

**KANEMITE® 15 SC MITICIDE**

| Persistence and degradability | Not rapidly degradable. May cause long-term adverse effects in the environment. |

12.3. Bioaccumulative potential

**3-dodecyl-1,4-dioxo-1,4-dihyronaphthalen-2-yl acetate (Acequinocyl) (57960-19-7)**

<table>
<thead>
<tr>
<th>BCF fish 1</th>
<th>366</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Pow</td>
<td>6.2</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

**3-dodecyl-1,4-dioxo-1,4-dihyronaphthalen-2-yl acetate (Acequinocyl) (57960-19-7)**

| Mobility in soil | Immobile in soil |
12.5. Other adverse effects

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

<table>
<thead>
<tr>
<th>Waste treatment methods</th>
<th>Dispose of in authorized waste collection plant.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewage disposal recommendations</td>
<td>Do not dispose of waste into sewer.</td>
</tr>
<tr>
<td>Waste disposal recommendations</td>
<td>Dispose in a safe manner in accordance with local/national regulations. Disposal via incineration is recommended.</td>
</tr>
</tbody>
</table>

**SECTION 14: Transport information**

**Department of Transportation (DOT)**

In accordance with DOT

- Transport document description: UN3082 Environmentally hazardous substances, liquid, n.o.s. (Acequinocyl), 9, III
- UN-No.(DOT): UN3082
- Proper Shipping Name (DOT): Environmentally hazardous substances, liquid, n.o.s. Acequinocyl
- Transport hazard class(es) (DOT): 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
- Packing group (DOT): III - Minor Danger
- Hazard labels (DOT): 9 - Class 9 (Miscellaneous dangerous materials)

- Dangerous for the environment: Yes
- Marine pollutant: Yes

**Other information**: Non-bulk (<= 119 gallons / 450 Liters) Not Regulated; Bulk (> 119 gallons / 450 Liters) Regulated as stated.

**Transportation of Dangerous Goods**

- Transport document description: UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acequinocyl), 9, III
- UN-No. (TDG): UN3082
- Proper Shipping Name (Transportation of Dangerous Goods): ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
- TDG Primary Hazard Classes: 9 - Class 9 - Miscellaneous Products, Substances or Organisms
- Packing group: III - Minor Danger
- TDG Special Provisions: Small Means of Containment (<= 450 L) Not Regulated; Large means of containment (> 450 L) Regulated as stated

**Transport by sea**

**IMDG**

- Transport hazard class(es) (IMDG): 9
- Marine pollutant: Yes
- UN-No. (IMDG): 3082
KANEMITE® 15 SC MITICIDE
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations, Canada HPR

Transport document description (IMDG) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acequinocyl), 9, III, MARINE POLLUTANT
Class (IMDG) : 9 - Miscellaneous dangerous substances and articles
Packing group (IMDG) : III - substances presenting low danger
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-F

Air transport
IATA
Transport hazard class(es) (IATA) : 9

Marine pollutant : Yes
UN-No. (IATA) : 3082
Transport document description (IATA) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acequinocyl), 9, III
Class (IATA) : 9 - Miscellaneous Dangerous Goods
Packing group (IATA) : III - Minor Danger

SECTION 15: Regulatory information
15.1. US Federal regulations
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

3-dodecyl-1,4-dioxo-1,4-dihydronaphthalen-2-yl acetate (Acequinocyl) (57960-19-7)
EPA TSCA Regulatory Flag : Exempt from TSCA Regulation under FIFRA Section 3 (2)(B)(ii) when used as a pesticide.

FIFRA Labelling
EPA Registration Number : 66330-38
This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use..

FIFRA Signal Word : Caution
FIFRA Human Health Hazards : Harmful if inhaled. Avoid breathing spray mist. Harmful if absorbed through skin. Causes moderate eye irritation. Harmful if swallowed.
FIFRA First Aid : Avoid contact with skin, eyes or clothing.
FIFRA Environmental Hazards : This product is toxic to aquatic invertebrates such as Eastern oysters and mysid shrimp. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.
FIFRA Other : This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several days after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product’s contribution to surface water contamination.

15.2. International regulations
CANADA
3-dodecyl-1,4-dioxo-1,4-dihydronaphthalen-2-yl acetate (Acequinocyl) (57960-19-7)
Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

15.3. US State regulations
No additional information available
**SECTION 16: Other information**

<table>
<thead>
<tr>
<th>Revision date</th>
<th>06/25/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other information</td>
<td>None.</td>
</tr>
</tbody>
</table>

**Full text of H-statements:**

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Inhalation:dust,mist)</th>
<th>Acute toxicity (inhalation:dust,mist) Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Acute 1</td>
<td>Hazardous to the aquatic environment — Acute Hazard, Category 1</td>
</tr>
<tr>
<td>Aquatic Chronic 1</td>
<td>Hazardous to the aquatic environment — Chronic Hazard, Category 1</td>
</tr>
<tr>
<td>Aquatic Chronic 2</td>
<td>Hazardous to the aquatic environment — Chronic Hazard, Category 2</td>
</tr>
<tr>
<td>Eye Irrit. 2A</td>
<td>Serious eye damage/eye irritation, Category 2A</td>
</tr>
<tr>
<td>Eye Irrit. 2B</td>
<td>Serious eye damage/eye irritation, Category 2B</td>
</tr>
<tr>
<td>Skin Sens. 1</td>
<td>Skin sensitisation, Category 1</td>
</tr>
<tr>
<td>STOT RE 2</td>
<td>Specific target organ toxicity — Repeated exposure, Category 2</td>
</tr>
<tr>
<td>STOT SE 1</td>
<td>Specific target organ toxicity — single exposure, Category 1</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H320</td>
<td>Causes eye irritation</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>H370</td>
<td>Causes damage to organs.</td>
</tr>
<tr>
<td>H373</td>
<td>May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

**Abbreviations and acronyms:**

- ACGIH (American Conference of Government Industrial Hygienists)
- ATE: Acute Toxicity Estimate
- CAS (Chemical Abstracts Service) number
- CLP: Classification, Labelling, Packaging.
- EC50: Environmental Concentration associated with a response by 50% of the test population.
- GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
- LD50: Lethal Dose for 50% of the test population
- OSHA: Occupational Safety & Health Administration
- TSCA: Toxic Substances Control Act

**NFPA health hazard**

| 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury. |

**NFPA fire hazard**

| 1 - Materials that must be preheated before ignition can occur. |

**NFPA reactivity**

| 0 - Normally stable, even under fire exposure conditions, and not reactive with water. |

**Indication of changes:**

Classification.

**SDS Prepared by:**

The Redstone Group, LLC.
6077 Frantz Rd
Suite 206
Dublin, Ohio, USA 43016
614.923.7472
www.redstonegrp.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.