SECTION I: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier

Product Name: Leafshield

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

Use: Antitranspirant

1.3 Details of the supplier of the safety data sheet

Company: Aquatrols Corporation
1273 Imperial Way
Paulsboro, NJ 08066

Website: www.aquatrols.com

Phone number: (856) 537-6003

Email: jyichye@aquatrols.com

1.4 Emergency telephone

Phone number: CHEMTEL - (800) 255-3924
CHEMTEL INTERNATIONAL- +1-813-248-0585

SECTION II: Hazards Identification

2.1 Classification of the substance or mixture:

Product description: Mixture

Classification according to 29 CFR 1910.1200

H318: Serious Eye Damage - Category 1

2.2 GHS Label Elements
Hazard Pictogram:

Signal Word: DANGER

Hazard Statements: H318: Causes serious eye damage

Precautionary Statements

Prevention: P280: Wear eye protection/face protection

Response: P305 + P351 + P338 + P310

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Storage: Store locked up.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3 Other hazards which do not result in classification

None known

SECTION III: Composition/Information on Ingredients

3.1 Substance/mixture: Mixture

Chemical nature: Nonionic emulsion based on a modified paraffin wax

3.2 Hazardous ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>GHS Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>127087-87-0</td>
<td>Eye Dam. – H 318</td>
<td>5-6%</td>
</tr>
<tr>
<td>Nonylphenol, branched, ethoxylated</td>
<td>68412-54-4</td>
<td>Eye Dam. – H 318</td>
<td>1-2%</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the manufacturer and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.
SECTION IV: First Aid Measures

4.1 Description of first aid measures

General advice: Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. Do not leave victim unattended.

Eye contact: Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

Inhalation: If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

Skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuses.

Ingestion: Clean mouth with water and drink afterwards plenty of water. Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

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

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Note to physician: Treat symptomatically.

See toxicological information (Section 11)

SECTION V: Firefighting Measures

5.1 Extinguishing media
Suitable extinguishing media: Alcohol-resistant foam. Carbon dioxide (CO$_2$). Dry chemical.

Unsuitable extinguishing media: No information available.

### 5.2 Special hazards arising from the substance or mixture

Do not allow run-off from firefighting to enter drains or water courses.

**Hazardous decomposition products:** Carbon oxides.

### 5.3 Advice for firefighters

**Special protective equipment:** Wear self-contained breather apparatus for firefighting if necessary.

**Further information:** Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION VI: Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures.

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in “For non-emergency personnel”.

### 6.2 Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3 Methods and materials for containment and cleanup
Spill: Soak up with absorbent materials (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
See Section VII for Handling and Storage.

SECTION VII: Handling and Storage

7.1 Precautions for safe handling of the substance/mixture.
Protective measures: Put on appropriate personal protective equipment (see section 8 of SDS). Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities
Storage conditions
Recommended: Keep container tightly closed in a dry and well-ventilated place. Electrical installations/working materials must comply with the technological safety standards.

7.3 Specific end use(s)
See Section I

SECTION VIII: Exposure Controls/Personal Protection

General comments
These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

**8.1 Control parameters**

**Occupational exposure limits:** None

**Appropriate engineering controls:** Use with local exhaust ventilation.

**8.2 Exposure controls**

**Hygiene measures:** When using, do not eat or drink. When using, do not smoke. Wash hands before breaks and at the end of the workday.

**Eye/face protection:** Eye wash bottle with pure water. Tightly fitting safety goggles. Wear face-shield and protective suit for abnormal processing problems.

**Hand protection:** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection:** Impervious clothing. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection:** If handling heated or misted product in a poorly ventilated area, wear a properly fitted respirator (NIOSH) during exposure.

**SECTION IX: 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>Color</td>
<td>Transparent</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>9.5</td>
</tr>
<tr>
<td>Melting point</td>
<td>0°C (32°F)</td>
</tr>
<tr>
<td>Boiling point</td>
<td>100°C (212°F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>17.5 mmHg (77°F (25°C))</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower and upper explosive limits</td>
<td>Lower-not available; Upper-not available</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available</td>
</tr>
<tr>
<td>Density</td>
<td>1.00 g/mL (68°F (20°C))</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Completely miscible</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Dynamic-300 mPa/s ((77°F (25°C)); Kinematic-Not available</td>
</tr>
</tbody>
</table>

9.2 Other information

Not applicable

SECTION X: Stability and Reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

10.2 Chemical stability

No decomposition if stored and applied as directed. Stable; polymerization will not occur.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions of avoid

No specific data.

10.5 Incompatible materials
Strong oxidizing agents.

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION XI: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity:

Acute oral toxicity: Acute oral toxicity estimate - > 5,000 mg/kg
Method: Calculation method.

Conclusion/Summary: Not determined

Skin irritation/Corrosion

Conclusion/Summary: Not determined

Sensitization

Conclusion/Summary: Not determined

Carcinogenicity

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Repeated dose toxicity

Conclusion/Summary: No known chronic health effects

Symptoms related to the physical, chemical and toxicological characteristics
**Eye contact:** Contact will probably cause severe irritation and corrosion.

**Inhalation:** High concentrations of heated vapors may irritate the respiratory tract and mucous membranes.

**Skin contact:** Contact may cause irritation.

**Ingestion:** Ingestion will probably cause irritation of the digestive tract.

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### SECTION XII: Ecological Information

#### 12.1 Toxicity

No data available

#### 12.2 Persistence and degradability

No data available

#### 12.3 Bioaccumulative potential

No data available

#### 12.4 Mobility in soil

Soil/water partition coefficient (KOC): Not available

#### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### 12.6 Other adverse effects

**Regulation:** 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone – CAA Section 602 Class I Substances.

**Remarks:** This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act. Section 602 (40 CFR 82, Subpt. A, App. A + B).

**Additional ecological information:** No data available.

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### SECTION XIII: Disposal Considerations

#### 13.1 Waste treatment methods
Resource Conservation and Recovery Act: Not applicable
EPA Hazardous Waste Code(s): Not applicable
Waste form residues: Dispose of in accordance with applicable local/municipal, state/provincial and federal regulations. Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container.
Contaminated packaging: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

**SECTION XIV: Transport Information**

In accordance with the provisions of ADR/RID/ADNR/IMDG/ICAO/IATA

**14.1 UN Number**
Not classified as dangerous

**14.2 Shipping name UN Model**
Not applicable

**14.3 Transport hazard class**
Not applicable

**14.4 Packing group**
Not applicable

**14.5 Environmental hazards**
Other information: No additional information available

**14.6 Special precautions for use**
No additional information available

**14.6.1 Ground transport**
No additional information available

**14.6.2 Sea transport**
No additional information available.

**14.6.3 Air transport**
No additional information available

14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code
Not applicable for this product as supplied.

SECTION XV: Regulatory Information

United States

EPCRA – Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity
Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a SARA 302 RQ.

SARA 311/312
Classification: Acute health hazard

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

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.

Clean Air Act
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

Non-volatile (w/w%): 30

US State Regulations
Massachusetts Right to Know: No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right to Know:  Water: 7732-18-5  
Wax:  -  
Polyethylene wax:  -  
4-Nonylphenol, branched, ethoxylated: 127087-87-0

New Jersey Right to Know:  Water: 7732-18-5  
Wax:  -  
Polyethylene wax:  -  
4-Nonylphenol, branched, ethoxylated: 127087-87-0  
Nonylphenol, branched, ethoxylated: 68412-54-4

California Prop. 65:  This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported on the following inventories:

TSCA:  We certify that all of the components of this product are either listed on the TSCA inventory or are not subject to the notification requirements per 40 CFR 729 30(h).

DSL:  We certify that all of the components of this product are listed on the DSL.

SECTION XVI: Other Information

History

Date of issue: 9/28/2015  
Date of printing: 9/28/2015  
Version: 1.0  
Prepared by: Aquatrols Corporation

Abbreviations:  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of octanol/water partition coefficient
Notice to reader

Unless otherwise specified in section I, Aquatrols’ products are intended for industrial application only. They are not intended for specific medical applications, neither for long-lasting (> 30 days) implantation into the human body, injected or directly ingested, nor for the manufacture of multiple usable contraceptives. Keep out of reach of children.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.