

Revision Date: 10/24/2014

Print Date: 3/19/2015

MSDS Number: R0273527

Version: 1.9

Drewfax™ 342 ANTISCALANT

™ Trademark, Solenis or its subsidiaries or affiliates, registered  
in various countries

67754

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Solenis LLC 500 Hercules Road Wilmington, Delaware 19808	Contact us at  Emergency telephone number	www.solenis.com  1-844-SOLENIS (844-765-3647) / 606-329-5705
Product name	Drewfax™ 342 ANTISCALANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries	
Product code	67754	

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

Appearance: liquid, colourless

NOTICE: WHILE THIS MATERIAL HAS A LOW LEVEL OF TOXICITY, GOOD INDUSTRIAL HYGIENE PRACTICES ARE ENCOURAGED TO MINIMIZE EXPOSURE.

### Potential Health Effects

#### **Exposure routes**

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

#### **Eye contact**

May cause mild eye irritation. Symptoms include stinging, tearing, and redness.

#### **Skin contact**

May cause slight skin irritation.

#### **Ingestion**

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

#### **Inhalation**

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

#### **Aggravated Medical Condition**

No data.

#### **Symptoms**

Revision Date: 10/24/2014

Print Date: 3/19/2015

MSDS Number: R0273527

Version: 1.9

Drewfax™ 342 ANTISCALANT  
™ Trademark, Solenis or its subsidiaries or affiliates, registered  
in various countries  
67754

No data.

**Target Organs**

No data.

**Carcinogenicity**

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

**Reproductive hazard**

Based on the available information, risk to the fetus from maternal exposure to this material cannot be assessed.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

**4. FIRST AID MEASURES****Eyes**

If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

**Skin**

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

**Ingestion**

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

**Inhalation**

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

**Notes to physician**

**Hazards:** No information available.

**Treatment:** No information available.

Revision Date: 10/24/2014

Print Date: 3/19/2015

MSDS Number: R0273527

Version: 1.9

Drewfax™ 342 ANTISCALANT

™ Trademark, Solenis or its subsidiaries or affiliates, registered  
in various countries

67754

**5. FIREFIGHTING MEASURES****Suitable extinguishing media**Dry chemical, Carbon dioxide (CO<sub>2</sub>), Water spray**Hazardous combustion products**

carbon dioxide and carbon monoxide

**Precautions for fire-fighting**

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

**NFPA Flammable and Combustible Liquids Classification**

Combustible Liquid Class IIIB

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

**Environmental precautions**

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up**

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

**Other information**

Comply with all applicable federal, state, and local regulations.

**7. HANDLING AND STORAGE****Handling**

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

**Storage**

Store in a cool, dry, ventilated area. Keep from freezing.

Revision Date: 10/24/2014

Print Date: 3/19/2015

MSDS Number: R0273527

Version: 1.9

Drewfax™ 342 ANTISCALANT

™ Trademark, Solenis or its subsidiaries or affiliates, registered

in various countries

67754

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Contains no substances with occupational exposure limit values.

### General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

### Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

### Eye protection

Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

### Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Wear resistant gloves (consult your safety equipment supplier).

### Respiratory protection

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Colour	colourless, light yellow, clear
Odour	slight
Boiling point/boiling range	> 212 °F / > 100 °C @ 760.00 mmHg
Melting point/range	32 °F / 0 °C
pH	4.8 - 5.6
Flash point	> 212 °F / > 100 °C
Evaporation rate	1 Water
Vapour pressure	17.500 mmHg @ 68 °F / 20 °C

Revision Date: 10/24/2014

Print Date: 3/19/2015

MSDS Number: R0273527

Version: 1.9

Drewfax™ 342 ANTISCALANT  
 ™ Trademark, Solenis or its subsidiaries or affiliates, registered  
 in various countries  
 67754

<b>Relative vapour density</b>	(>)1 AIR=1
<b>Density</b>	1.285 g/cm <sup>3</sup> @ 77.00 °F / 25.00 °C
	11 lb/gal
<b>Bulk density</b>	1,120 kg/m <sup>3</sup>
<b>Water solubility</b>	partly miscible
<b>Viscosity, dynamic</b>	150 - 350 mPa.s @ 25 °C
<b>Solids in Solution</b>	46 - 48 %(m)

## 10. STABILITY AND REACTIVITY

### Stability

Stable.

### Conditions to avoid

None known.

### Incompatible products

Oxidizing agents, strong mineral acids

### Hazardous decomposition products

carbon dioxide and carbon monoxide

### Hazardous reactions

Product will not undergo hazardous polymerization.

## 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation  
 Skin absorption  
 Skin contact  
 Eye Contact  
 Ingestion

### Product

Acute oral toxicity : No data available

Acute inhalation toxicity : No data available

Acute dermal toxicity : No data available

Revision Date: 10/24/2014

Print Date: 3/19/2015

MSDS Number: R0273527

Version: 1.9

Drewfax™ 342 ANTISCALANT  
™ Trademark, Solenis or its subsidiaries or affiliates, registered  
in various countries  
67754

Skin corrosion/irritation : No data available

Serious eye damage/eye  
irritation : No data available

Respiratory or skin sensitisation : No data available

**Components:**

No data available

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

Toxicity to fish : LD 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss)):  
5,477 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other  
aquatic invertebrates : EC 50 (Water flea (Daphnia)): 1,372 mg/l

**Components:**

No data available

**Persistence and degradability**

**Product:**

No data available

**Components:**

No data available

**Bioaccumulative potential**

**Product:**

No data available

**Components:**

No data available

Revision Date: 10/24/2014

Print Date: 3/19/2015

MSDS Number: R0273527

Version: 1.9

Drewfax™ 342 ANTISCALANT  
 ™ Trademark, Solenis or its subsidiaries or affiliates, registered  
 in various countries  
 67754

**Mobility in soil**
**Product:**

No data available

**Components:**

No data available

**13. DISPOSAL CONSIDERATIONS**
**Waste disposal methods**

Dispose of in accordance with all applicable local, state and federal regulations.

**14. TRANSPORT INFORMATION**
**REGULATION**

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.

**U.S. DOT - ROAD**

Not dangerous goods

**U.S. DOT - RAIL**

Not dangerous goods

**U.S. DOT - INLAND WATERWAYS**

Not dangerous goods

**TRANSPORT CANADA - ROAD**

Not dangerous goods

**TRANSPORT CANADA - RAIL**

Not dangerous goods

**TRANSPORT CANADA - INLAND WATERWAYS**

Not dangerous goods

Revision Date: 10/24/2014

Print Date: 3/19/2015

MSDS Number: R0273527

Version: 1.9

Drewfax™ 342 ANTISCALANT

™ Trademark, Solenis or its subsidiaries or affiliates, registered  
 in various countries

67754

**INTERNATIONAL MARITIME DANGEROUS GOODS**

Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**

Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**

Not dangerous goods

**MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES**

Not dangerous goods

**\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

**15. REGULATORY INFORMATION****California Prop. 65**

Proposition 65 warnings are not required for this product based on the results of a risk assessment.

**SARA Hazard Classification****SARA 311/312 Classification**

No SARA Hazards

**SARA 313 Component(s)**

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.

**Notification status**

US. Toxic Substances Control Act	y (positive listing)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	y (positive listing)
Australia. Industrial Chemical (Notification and Assessment) Act	y (positive listing)



Revision Date: 10/24/2014

Print Date: 3/19/2015

MSDS Number: R0273527

Version: 1.9

Drewfax™ 342 ANTISCALANT

™ Trademark, Solenis or its subsidiaries or affiliates, registered  
 in various countries

67754

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	y (positive listing)
Japan. Kashin-Hou Law List	y (positive listing)
Korea. Toxic Chemical Control Law (TCCL) List	y (positive listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	y (positive listing)
China. Inventory of Existing Chemical Substances	y (positive listing)

	HMIS	NFPA
Health	1	1
Flammability	0	0
Physical hazards	0	
Instability		0
Specific Hazard	--	--

## 16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by the Solenis Environmental Health and Safety Department.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

BEI : Biological Exposure Index

CAS : Chemical Abstracts Service (Division of the American Chemical Society).

CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

LCxx : Lethal Concentration, for xx percent of test population

LDxx : Lethal Dose, for xx percent of test population.

ICxx : Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx

N.O.S.: Not Otherwise Specified

OECD : Organization for Economic Co-operation and Development

Revision Date: 10/24/2014

Print Date: 3/19/2015

MSDS Number: R0273527

Version: 1.9

Drewfax™ 342 ANTISCALANT

™ Trademark, Solenis or its subsidiaries or affiliates, registered  
in various countries

67754

OEL : Occupational Exposure Limit

P-Statement : Precautionary Statement

PBT : Persistent , Bioaccumulative and Toxic

PPE : Personal Protective Equipment

STEL : Short-term exposure limit

STOT : Specific Target Organ Toxicity

TLV : Threshold Limit Value

TWA : Time-weighted average

vPvB : Very Persistent and Very Bioaccumulative

WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act

DOT : Department of Transportation

FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act

HMIRC : Hazardous Materials Information Review Commission

HMIS : Hazardous Materials Identification System

NFPA : National Fire Protection Association

NIOSH : National Institute for Occupational Safety and Health

OSHA : Occupational Safety and Health Administration

PMRA : Health Canada Pest Management Regulatory Agency

RTK : Right to Know

WHMIS : Workplace Hazardous Materials Information System