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## SECTION 1. IDENTIFICATION

### Product identifier

Trade name : Drewfloc™ 2220  
polymer  
™ Trademark, Solenis or its subsidiaries or affiliates,  
registered in various countries

### Recommended use of the chemical and restrictions on use

Use of the Substance/Mixture : Industrial chemical

<b>Details of the supplier of the safety data sheet</b> Solenis LLC 500 Hercules Road Wilmington, Delaware 19808 United States of America (USA)  RegulatoryRequestsNA@solenis.com	<b>Emergency telephone number</b> 1-844-SOLENIS (844-765-3647)  <b>Product Information</b> Contact your local Solenis representative
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## SECTION 2. HAZARDS IDENTIFICATION

### GHS classification in accordance with 29 CFR 1910.1200

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

### GHS label elements

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

### Other hazards


None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Static Accumulator

### Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
ALIPHATIC HYDROCARBON	Trade Secret	Flam. Liq. 4; H227 Asp. Tox. 1; H304	>= 20 - < 30
ALKANOL POLYALKOXYLATE	Trade Secret	Acute Tox. 4; H302 Eye Irrit. 2A; H319	>= 1 - < 1.5

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#### SECTION 4. FIRST AID MEASURES

- General advice : No hazards which require special first aid measures.
- If inhaled : If breathed in, move person into fresh air.  
If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Remove contact lenses.  
Protect unharmed eye.
- If swallowed : Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : No symptoms known or expected.
- Notes to physician : No hazards which require special first aid measures.

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#### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)  
Nitrogen oxides (NO<sub>x</sub>)  
Hydrocarbons  
toxic fumes
- Specific extinguishing methods : Product is compatible with standard fire-fighting agents.
- Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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Special protective equipment : In the event of fire, wear self-contained breathing apparatus for firefighters

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Comply with all applicable federal, state, and local regulations.
- 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.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

**SECTION 7. HANDLING AND STORAGE**


- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8.
- Conditions for safe storage : Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : No materials to be especially mentioned.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ALIPHATIC HYDROCARBON	Trade Secret	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
		TWA (Mist)	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL

**Engineering measures** : General room ventilation should be adequate for normal

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conditions of use. However, if unusual operating conditions exist, 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.


**Personal protective equipment**

- Respiratory protection : No personal respiratory protective equipment normally required.
  
- 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 resistant gloves (consult your safety equipment supplier).  
Wear as appropriate:  
Safety shoes
  
- Hygiene measures : General industrial hygiene practice.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Appearance : liquid
- Colour : milky
- Odour : mild, hydrocarbon-like
- Odour Threshold : No data available
- pH : No data available
- Melting point/freezing point : No data available
- Boiling point/boiling range : No data available
- Flash point : > 93.3 °C
- Evaporation rate : < 1
- Flammability (solid, gas) : No data available
- Self-ignition : No data available
- Upper explosion limit : No data available
- Lower explosion limit : No data available
- Vapour pressure : 22.7 hPa (20 °C)

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Relative vapour density : No data available

Relative density : No data available

Density : ca. 1.05 g/cm<sup>3</sup>

Solubility(ies)

    Water solubility : No data available

    Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Decomposition temperature : No data available

Viscosity

    Viscosity, dynamic : No data available

    Viscosity, kinematic : > 21 mm<sup>2</sup>/s (40 °C)  
Based on a similar product formulation.

Oxidizing properties : No data available

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## SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.


Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : Product will not undergo hazardous polymerization.

Conditions to avoid : Protect from frost.  
Heat, flames and sparks.

Incompatible materials : halogens  
Strong acids  
Strong oxidizing agents  
strong reducing agents

Hazardous decomposition products : Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)  
Nitrogen oxides (NO<sub>x</sub>)  
Hydrocarbons

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## SECTION 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

Not classified based on available information.

### Product:

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

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

### Components:

#### ALIPHATIC HYDROCARBON:

Acute oral toxicity : LD 50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC 50 (Rat, male and female): > 5.28 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: OECD Test Guideline 403  
Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD 50 (Rabbit): > 2,000 mg/kg  
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

#### ALKANOL POLYALKOXYLATE:

Acute oral toxicity : LD 50 (Rat): 1,940 mg/kg

Acute dermal toxicity : LD 50 (Rat): > 2,000 mg/kg

### Skin corrosion/irritation

Not classified based on available information.

### Product:

Result: Repeated exposure may cause skin dryness or cracking.

### Components:

#### ALIPHATIC HYDROCARBON:


Result: Mildly irritating to skin

#### ALKANOL POLYALKOXYLATE:

Result: Not irritating to skin

### Serious eye damage/eye irritation

Not classified based on available information.

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**Product:**

Remarks: Unlikely to cause eye irritation or injury.

**Components:**

**ALIPHATIC HYDROCARBON:**

Result: Mildly irritating to eyes

**ALKANOL POLYALKOXYLATE:**

Result: Irritating to eyes

**Respiratory or skin sensitisation**

**Skin sensitisation**

Not classified based on available information.

**Respiratory sensitisation**

Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**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.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**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.

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**STOT - repeated exposure**

Not classified based on available information.


**Aspiration toxicity**

Not classified based on available information.

**Components:**

**ALIPHATIC HYDROCARBON:**

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

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**Further information**

**Product:**

Remarks: No data available

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

- Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 68.3 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.64 mg/l  
Exposure time: 48 h

**Ecotoxicology Assessment**

- Acute aquatic toxicity : Acute aquatic toxicity Category 3; Harmful to aquatic life.
- Chronic aquatic toxicity : Not classified based on available information.

**Components:**

**ALIPHATIC HYDROCARBON:**

**Ecotoxicology Assessment**

- Acute aquatic toxicity : No toxicity at the limit of solubility
- Chronic aquatic toxicity : No toxicity at the limit of solubility

**ALKANOL POLYALKOXYLATE:**

- Toxicity to fish : LC 50 (Danio rerio (zebra fish)): 1 - 10 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (Daphnia magna)): 5 - 10 mg/l  
Exposure time: 48 h
- Toxicity to microorganisms : EC 50: > 1,000 mg/l

**Persistence and degradability**

**Components:**

**ALKANOL POLYALKOXYLATE:**

- Biodegradability : Biodegradation: 50 - 70 %  
Exposure time: 28 d
- Chemical Oxygen Demand (COD) : 2,170 mg/g  
Method: Chemical oxygen demand



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Dissolved organic carbon : 540 mg/g  
(DOC)

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

**Product:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.

The product should not be allowed to enter drains, water courses or the soil.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.

**SECTION 14. TRANSPORT INFORMATION**

**International transport regulations**

**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**

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Not dangerous goods
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**TRANSPORT CANADA - RAIL**

Not dangerous goods
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**INTERNATIONAL MARITIME DANGEROUS GOODS**

Not dangerous goods
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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**

Not dangerous goods
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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**

Not dangerous goods
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**MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES**

Not dangerous goods
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**\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Marine pollutant	no
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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.

**SECTION 15. REGULATORY INFORMATION**

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

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : No SARA Hazards

**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.

**California Prop. 65**

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

**The components of this product are reported in the following inventories:**

**DSL** : All components of this product are on the Canadian DSL

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AICS	:	On the inventory, or in compliance with the inventory
ENCS	:	Not in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	On TSCA Inventory

#### TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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## SECTION 16. OTHER INFORMATION

#### Further information

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#### Full text of H-Statements

H227	:	Combustible liquid.
H302	:	Harmful if swallowed.
H304	:	May be fatal if swallowed and enters airways.
H319	:	Causes serious eye irritation.

#### Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Asp. Tox.	:	Aspiration hazard
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids

#### Further information

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.


Sources of key data used to compile the Safety Data Sheet

Key literature references and sources of data

SOLENIS Internal data

SOLENIS internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

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#### Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

US / EN