

## SAFETY DATA SHEET

Revision Date: 04/17/2012

Print Date: 8/26/2014

MSDS Number: R0351227

Version: 1.8

Drew™ 2100 COOLING WATER  
TREATMENT

™ Trademark, Solenis or its subsidiaries or  
affiliates, registered in various countries67599

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

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone number	1-800-ASHLAND (1-800-274-5263)
Product name	Drew™ 2100 COOLING WATER TREATMENT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries	
Product code	67599	

### 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Appearance: liquid, amber

CAUTION! MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE DERMATITIS AND BURNS.

#### Potential Health Effects

##### **Exposure routes**

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

##### **Eye contact**

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

##### **Skin contact**

Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, skin burns, and other skin damage.

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### 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

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions)

### Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways)

### Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: kidney damage

### 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

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Hazardous Components	CAS-No. / Trade Secret No.	Concentration
Phosphoric acid potassium salt	16068-46-5	>=10-<15%
INORGANIC SALT	254504001-5294	>=1.5-<5%
SULFONATED ACRYLATE/METHYLMETHACRYLATE POLYMER, POTASSIUM SALT		>=1.5-<5%

### 4. FIRST AID MEASURES

#### Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

#### Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and 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:** Excessive levels of phosphorus can cause low blood calcium, with tetany and convulsions.

**Treatment:** No information available.

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### 5. FIREFIGHTING MEASURES

#### Suitable extinguishing media

Dry chemical, Carbon dioxide (CO<sub>2</sub>), Water spray

#### Hazardous combustion products

carbon dioxide and carbon monoxide, nitrogen oxides (NO<sub>x</sub>), Oxides of phosphorus, potassium oxide, toxic fumes

#### Precautions for fire-fighting

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). 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.

### 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

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### 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.

## 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

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

### 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).

Discard gloves that show tears, pinholes, or signs of wear.

### Respiratory protection

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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

<b>Physical state</b>	liquid
<b>Colour</b>	amber
<b>Boiling point/boiling range</b>	171.1 °F / 77.3 °C @ 1,013.23 hPa Calculated Phase Transition Liquid/Gas
<b>Melting point/range</b>	20.1 °F / -6.6 °C
<b>pH</b>	6
<b>Flash point</b>	does not flash
<b>Vapour pressure</b>	145.318 hPa @ 77 °F / 25 °C Calculated Vapor Pressure
<b>Density</b>	1.292 g/cm3 @ 77 °F / 25 °C
<b>Water solubility</b>	completely soluble

### 10. STABILITY AND REACTIVITY

#### Stability

Stable.

#### Conditions to avoid

temperature extremes

#### Incompatible products

Alkali metals, Alkaline earth metals, Reducing agents, Strong acids, Strong oxidizing agents, This product should not be used in conjunction with trimethylol propane or trimethylol propane-derived

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products. There is a possibility that bicyclic phosphates or phosphites can be produced as a result of the thermal decomposition of this product in combination with trimethylol propane, trimethylol propane-derived products or their corresponding trimethylol propane alkane homologs. Bicyclic phosphates and phosphites are a class of materials with acute neurotoxic properties which produce characteristic convulsive seizures in test animals.

### Hazardous decomposition products

carbon dioxide and carbon monoxide, nitrogen oxides (NOx), Oxides of phosphorus, potassium oxide, toxic fumes

### Hazardous reactions

Product will not undergo hazardous polymerization.

## 11. TOXICOLOGICAL INFORMATION

### Acute oral toxicity

Acute oral toxicity - : no data available  
Product

### Acute oral toxicity - Components

INORGANIC SALT : LD L0: 4,640 mg/kg Species: Rat

### Acute inhalation toxicity

Acute inhalation toxicity - : no data available  
Product

### Acute dermal toxicity

Acute dermal toxicity - : no data available  
Product

### Acute dermal toxicity - Components

INORGANIC SALT : LD 50: > 4,640 mg/kg Species: Rabbit

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### Acute toxicity (other routes of administration)

Acute toxicity (other routes of administration) : no data available

## 12. ECOLOGICAL INFORMATION

### Biodegradability

Biodegradability - Product : no data available

### Bioaccumulation

Bioaccumulation - Product : no data available

### Ecotoxicity effects

#### Toxicity to fish

Toxicity to fish - Product : LC 50: 4,890 mg/l  
Exposure time: 96 h  
Species: Pimephales promelas (fathead minnow)  
Test Type: static test  
Remarks: Information given is based on data on the  
components and the ecotoxicology of similar products.

#### Toxicity to daphnia and other aquatic invertebrates.

Toxicity to daphnia and other aquatic invertebrates. - Product : LC 50: 1,650 mg/l  
Exposure time: 48 h  
Species: Water flea (Daphnia magna)  
Test Type: static test  
Remarks: Information given is based on data on the  
components and the ecotoxicology of similar products.

#### Toxicity to algae

Toxicity to algae - Product : no data available



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### Toxicity to bacteria

Toxicity to bacteria - : no data available  
Product

### Biochemical Oxygen Demand (BOD)

Biochemical Oxygen : 7,400 mg/l  
Demand (BOD) Remarks: Based on a similar product formulation.

### Chemical Oxygen Demand (COD)

Chemical Oxygen Demand : 220,000 mg/l  
(COD) Method: Chemical oxygen demand  
Remarks: Based on a similar product formulation.

## 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.
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### U.S. DOT - ROAD

Not dangerous goods

### U.S. DOT - RAIL

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Not dangerous goods
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### U.S. DOT - INLAND WATERWAYS

Not dangerous goods
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### TRANSPORT CANADA - ROAD

Not dangerous goods
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### TRANSPORT CANADA - RAIL

Not dangerous goods
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### TRANSPORT CANADA - INLAND WATERWAYS

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

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	
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on the results of a risk assessment.	
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### SARA Hazard Classification

#### SARA 311/312 Classification

Acute Health Hazard
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### SARA 313 Component(s)

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.

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

	HMIS	NFPA
Health	2	2
Flammability	0	0
Physical hazards	1	
Instability		1
Specific Hazard	--	--

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### 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 Ashland's Environmental Health and Safety Department (1-800-325-3751).