

# ASHLAND®

## SAFETY DATA SHEET

Page: 1

Revision Date: 05/07/2013

Print Date: 4/4/2014

MSDS Number: R0357573

Version: 2.0

Drewgard™ 120 CORROSION INHIBITOR  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries 83965

### 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	Drewgard™ 120 CORROSION INHIBITOR	
Product code	™ Trademark, Ashland or its subsidiaries, registered in various countries 83965	

### 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Appearance: liquid, colourless

CAUTION! PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION.

#### 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. 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.

##### **Ingestion**

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

##### **Inhalation**

It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). 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**

# ASHLAND

## SAFETY DATA SHEET

Page: 2

Revision Date: 05/07/2013

Print Date: 4/4/2014

MSDS Number: R0357573

Version: 2.0

Drewgard™ 120 CORROSION INHIBITOR  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries 83965

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

Hazardous Components	CAS-No. / Trade Secret No.	Concentration
INORGANIC SALT	254504001-5294	>=60-<70%

## 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.

# ASHLAND®

## SAFETY DATA SHEET

Page: 3

Revision Date: 05/07/2013

Print Date: 4/4/2014

MSDS Number: R0357573

Version: 2.0

Drewgard™ 120 CORROSION INHIBITOR  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries 83965

### Notes to physician

**Hazards:** Excessive levels of phosphorus can cause low blood calcium, with tetany and convulsions.

**Treatment:** No information available.

## 5. FIREFIGHTING MEASURES

### Suitable extinguishing media

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

### Hazardous combustion products

Oxides of phosphorus, potassium oxide

### 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.

### NFPA Flammable and Combustible Liquids Classification

not applicable

## 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.

Drewgard™ 120 CORROSION INHIBITOR  
 ™ Trademark, Ashland or its subsidiaries, registered  
 in various countries 83965

### 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
Boiling point/boiling range	216 °F / 102 °C @ 760.00 mmHg
pH	10.0 - 10.8
Flash point	no data available
Evaporation rate	(>)1 Ethyl Ether
Vapour pressure	16.000 mmHg @ 68.00 °F / 20.00 °C
Relative vapour density	(<)1 AIR=1
Density	1.71 - 1.80 g/cm3

# ASHLAND®

## SAFETY DATA SHEET

Page: 5

Revision Date: 05/07/2013

Print Date: 4/4/2014

MSDS Number: R0357573

Version: 2.0

Drewgard™ 120 CORROSION INHIBITOR  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries 83965

### 10. STABILITY AND REACTIVITY

#### Stability

Stable.

#### Conditions to avoid

None known.

#### Incompatible products

Strong acids, This product should not be used in conjunction with trimethylol propane or trimethylol propane-derived 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

Oxides of phosphorus, potassium oxide

#### 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

Skin corrosion/irritation : Result: Mildly irritating to skin

Serious eye damage/eye : Result: Mildly irritating to eyes

# ASHLAND®

## SAFETY DATA SHEET

Page: 6

Revision Date: 05/07/2013

Print Date: 4/4/2014

MSDS Number: R0357573

Version: 2.0

Drewgard™ 120 CORROSION INHIBITOR  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries83965

irritation

Respiratory or skin sensitisation : no data available

Target Organ Systemic Toxicant : Target Organs: Overexposure to this material (or its components)  
- Repeated exposure has been suggested as a cause of the following effects in  
laboratory animals: kidney damage

### Components:

#### **INORGANIC SALT:**

Acute oral toxicity : LD L0 Rat: 4,640 mg/kg

Acute dermal toxicity : LD 50 Rabbit: > 4,640 mg/kg

## 12. ECOLOGICAL INFORMATION

### **Ecotoxicity**

#### Product:

Toxicity to fish : LC 50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC 50 (Water flea (Daphnia magna)): > 100 mg/l  
aquatic invertebrates Exposure time: 48 h

LC 50 (Opossum shrimp (Americamysis bahia)): > 100 mg/l  
Exposure time: 96 h

### Components:

no data available

### **Persistence and degradability**

#### Product:

no data available

### Components:

no data available

### **Bioaccumulative potential**

# ASHLAND®

## SAFETY DATA SHEET

Page: 7

Revision Date: 05/07/2013

Print Date: 4/4/2014

MSDS Number: R0357573

Version: 2.0

Drewgard™ 120 CORROSION INHIBITOR  
 ™ Trademark, Ashland or its subsidiaries, registered  
 in various countries 83965

**Product:**

no data available

**Components:**

no data available

**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**

UN 3266	Corrosive liquid, basic, inorganic, n.o.s. (TETRAPOTASSIUM PYROPHOSPHATE)	8		III	
---------	---	---	--	-----	--

**U.S. DOT - RAIL**

UN 3266	Corrosive liquid, basic, inorganic, n.o.s. (TETRAPOTASSIUM PYROPHOSPHATE)	8		III	
---------	---	---	--	-----	--

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

UN 3266	Corrosive liquid, basic, inorganic, n.o.s. (TETRAPOTASSIUM PYROPHOSPHATE)	8		III	
---------	---	---	--	-----	--

**TRANSPORT CANADA - ROAD**

# ASHLAND®

## SAFETY DATA SHEET

Page: 8

Revision Date: 05/07/2013

Print Date: 4/4/2014

MSDS Number: R0357573

Version: 2.0

Drewgard™ 120 CORROSION INHIBITOR  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries 83965

UN	3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (TETRAPOTASSIUM PYROPHOSPHATE)	8	III
----	------	--	---	-----

### TRANSPORT CANADA - RAIL

UN	3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (TETRAPOTASSIUM PYROPHOSPHATE)	8	III
----	------	--	---	-----

### TRANSPORT CANADA - INLAND WATERWAYS

UN	3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (TETRAPOTASSIUM PYROPHOSPHATE)	8	III
----	------	--	---	-----

### INTERNATIONAL MARITIME DANGEROUS GOODS

UN	3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (TETRAPOTASSIUM PYROPHOSPHATE)	8	III
----	------	--	---	-----

### INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN	3266	Corrosive liquid, basic, inorganic, n.o.s. (TETRAPOTASSIUM PYROPHOSPHATE)	8	III
----	------	---	---	-----

### INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	3266	Corrosive liquid, basic, inorganic, n.o.s. (TETRAPOTASSIUM PYROPHOSPHATE)	8	III
----	------	---	---	-----

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

UN	3266	LIQUIDO CORROSIVO, BASICO, INORGANICO, N.E.P. (TETRAPOTASSIUM PYROPHOSPHATE)	8	III
----	------	---	---	-----

\*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



# ASHLAND<sup>®</sup>

## SAFETY DATA SHEET

Page: 9

Revision Date: 05/07/2013

Print Date: 4/4/2014

MSDS Number: R0357573

Version: 2.0

Drewgard™ 120 CORROSION INHIBITOR  
 ™ Trademark, Ashland or its subsidiaries, registered  
 in various countries 83965

### California Prop. 65

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

**SARA Hazard Classification**  
**SARA 311/312 Classification**  
 No SARA Hazards

### 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)
Japan. ENCS - Existing and New Chemical Substances Inventory	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 Ashland's Environmental Health and Safety Department (1-800-325-3751).

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

# ASHLAND<sup>®</sup>

## SAFETY DATA SHEET

Page: 10

Revision Date: 05/07/2013

Print Date: 4/4/2014

MSDS Number: R0357573

Version: 2.0

Drewgard™ 120 CORROSION INHIBITOR

™ Trademark, Ashland or its subsidiaries, registered  
in various countries 83965

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

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