

# Material Safety Data Sheet

D-Limer



## 1. Product and company identification

<b>Product name</b>	D-Limer	<b>In case of emergency</b>	1-800-843-6174
<b>Code</b>	294FS	<b>Validation date</b>	8/16/2010.
<b>Material uses</b>	Acid for Dissolving Hard Water Deposits	<b>Print date</b>	8/16/2010.
<b>Manufacturer</b>	Essential Industries, Inc. P.O. Box 12 Merton, WI 53056-0012 Phone: 262-538-1122	<b>Responsible name</b>	Regulatory Affairs Department

### Hazardous Material Information System (U.S.A.)

<b>Health</b>	<b>3</b>	<b>HAZARD RATING</b>
<b>Flammability</b>	<b>0</b>	4 = Extreme
<b>Physical hazards</b>	<b>0</b>	3 = High
<b>Personal protection</b>	<b>B</b>	2 = Moderate
		1 = Slight
		0 = Insignificant

A = Goggles B = Goggles & Gloves C = Goggles, Gloves & Apron

## 2. Hazards identification

**Emergency overview** CAUTION!  
MAY BE HARMFUL IF SWALLOWED. CORROSIVE TO EYES AND SKIN.  
May be harmful if swallowed. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

### Potential acute health effects due to overexposure

**Inhalation** May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Ingestion** Harmful if swallowed. May cause burns to mouth, throat and stomach.

**Skin** Corrosive to the skin. May cause severe burns.

**Eyes** Corrosive to eyes. May cause severe burns.

### Potential chronic health effects due to overexposure

**Carcinogenicity** No known significant effects or critical hazards.

**Mutagenicity** No known significant effects or critical hazards.

**Teratogenicity** No known significant effects or critical hazards.

**Developmental effects** No known significant effects or critical hazards.

**Fertility effects** No known significant effects or critical hazards.

See toxicological information (section 8)

## 3. Composition/information on ingredients

<b>Name</b>	<b>CAS number</b>	<b>%</b>
Phosphoric acid	7664-38-2	10 - 30
Sulfamic Acid	5329-14-6	1 - 5

## 4. First aid measures

**Eye contact** Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

**Skin contact** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

**Inhalation** Move exposed person to fresh air. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

**Ingestion** Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention immediately.

**Protection of first-aiders** No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Notes to physician** In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

## 5. Fire-fighting measures

<b>Flammability of the product</b>	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Extinguishing media</b>	
<b>Suitable</b>	Use an extinguishing agent suitable for the surrounding fire.
<b>Special exposure hazards</b>	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Hazardous thermal decomposition products</b>	Decomposition products may include the following materials: nitrogen oxides sulfur oxides phosphorus oxides
<b>Special protective equipment for fire-fighters</b>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
<b>Flash point</b>	Closed cup: Not applicable

## 6. Control and preventive measures

**Storage** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Ingredient	Exposure limits
Phosphoric acid	<b>OSHA PEL (United States, 11/2006).</b> TWA: 1 mg/m <sup>3</sup> 8 hour(s).

### Personal protection

<b>Respiratory</b>	None required. However, use of adequate ventilation is good industrial practice.
<b>Hands</b>	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.
<b>Skin</b>	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.
<b>Eyes</b>	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

### Methods for cleaning up

<b>Small spill</b>	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
<b>Waste disposal</b>	Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

## 7. Physical and chemical properties

<b>Physical state</b>	Liquid	<b>Boiling/condensation point</b>	100°C (212°F)
<b>Color</b>	Blue	<b>Melting/freezing point</b>	0°C (32°F)
<b>Odor</b>	Bland	<b>Vapor pressure</b>	<4 kPa (<30 mm Hg)
<b>VOC</b>	0.0%	<b>Vapor density</b>	<1 [Air = 1]
<b>pH</b>	1 to 2	<b>Weight per Gallon:</b>	9.45 lbs./gal.
<b>1% pH:</b>	2.0 to 3.0	<b>Specific Gravity:</b>	1.13 gm/ml

## 8. Toxicological information

### Acute toxicity


Product/ingredient name	Result	Species	Dose	Exposure
Phosphoric acid	LD50 Oral	Rat	1.25 g/kg	-
Sulfamic Acid	LD50 Oral	Rat	3160 mg/kg	-
	LDLo Intraperitoneal	Rat	100 mg/kg	-

**Conclusion/Summary** Not available

### Chronic toxicity

**Conclusion/Summary** Not available

## 9. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>DOT Classification</b>	UN1760	Corrosive Liquids, N.O.S. (Phosphoric acid)	8	III		-

PG\* : Packing group