

Material Safety Data Sheet

D-LIMER

1. Product and company identification

Product name	D-LIMER	<u>In case of emergency</u>	1-800-843-6174
Code	294FS	Validation date	7/14/2009.
Material uses	Acid for Dissolving Hard Water Deposits	Print date	7/14/2009.
Manufacturer	Essential Industries, Inc. P.O. Box 12 Merton, WI 53056-0012 Phone: 262-538-1122	Responsible name	Regulatory Affairs Department

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

Health	2	HAZARD RATING
Flammability	0	4 = Extreme
Physical hazards	0	3 = High
Personal protection	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. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
May be harmful if swallowed. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Contains material that may cause target organ damage, based on animal data. 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 Severely corrosive to the skin. Causes severe burns.

Eyes Severely corrosive to the eyes. Causes 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

Name	CAS number	%
phosphoric acid	7664-38-2	10 - 30
sulphamidic 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

Flammability of the product	In a fire or if heated, a pressure increase will occur and the container may burst.
<u>Extinguishing media</u>	
Suitable	Use an extinguishing agent suitable for the surrounding fire.
Special exposure hazards	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.
Hazardous thermal decomposition products	Decomposition products may include the following materials: nitrogen oxides sulfur oxides phosphorus oxides
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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.
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Ingredient	Exposure limits
phosphoric acid	ACGIH TLV (United States, 1/2008). TWA: 1 mg/m ³ 8 hour(s). OSHA PEL 1989 (United States, 3/1989). TWA: 1 mg/m ³ 8 hour(s). OSHA PEL (United States, 11/2006). TWA: 1 mg/m ³ 8 hour(s).

Personal protection

Respiratory	None required. However, use of adequate ventilation is good industrial practice.
Hands	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.
Skin	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.
Eyes	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

Small spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Waste disposal	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

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

8. Toxicological information


Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
phosphoric acid	LD50 Oral	Rat	1.25 gm/kg	-
	LD50 Oral	Rat	1530 mg/kg	-
	LC50 Inhalation Vapor	Rat	>850 mg/m ³	1 hours
	LD50 Oral	Rat	3160 mg/kg	-
sulphamidic acid				
Conclusion/Summary	Not available			

Chronic toxicity

Conclusion/Summary	Not available
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9. Transport information

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

PG* : Packing group