



Material Safety Data Sheet

Issue Date: 17-AUG-2009
Supersedes: 18-JUN-2009

FLOGARD POT804

1 Identification

Identification of substance or preparation

FLOGARD POT804

Product Application Area

Corrosion inhibitor.

Company/Undertaking Identification

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Emergency Telephone

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Prepared by Product Stewardship Group: T 215-355-3300 Prepared on: 17-AUG-2009

2 Hazard(s) identification

EMERGENCY OVERVIEW

DANGER

Corrosive to skin. Corrosive to the eyes. Mists/aerosols cause irritation to the upper respiratory tract.

DOT hazard: Corrosive to skin/steel
Odor: Slight; Appearance: Colorless To Yellow, Liquid

Fire fighters should wear positive pressure self-contained breathing apparatus(full face-piece type). Proper fire-extinguishing media: dry chemical/CO2/foam or water--slippery condition; use sand/grit.

POTENTIAL HEALTH EFFECTS

ACUTE SKIN EFFECTS:

Primary route of exposure; Corrosive to skin.

ACUTE EYE EFFECTS:

Corrosive to the eyes.

ACUTE RESPIRATORY EFFECTS:

Mists/aerosols cause irritation to the upper respiratory tract.

INGESTION EFFECTS:

May cause severe irritation or burning of mouth, throat, and gastrointestinal tract with severe chest and abdominal pain, nausea, vomiting, diarrhea, lethargy and collapse. Possible death when ingested in very large doses.

TARGET ORGANS:

Prolonged or repeated exposures may cause tissue necrosis.

MEDICAL CONDITIONS AGGRAVATED:

Not known.

SYMPTOMS OF EXPOSURE:

Causes severe irritation, burns or tissue ulceration with subsequent scarring.

3 Composition / information on ingredients

Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this MSDS for our assessment of the potential hazards of this formulation. This product is subject to the Pennsylvania and New Jersey Worker and Community Right to Know Law.

HAZARDOUS INGREDIENTS:

Cas#	Chemical Name	Range (w/w%)
13598-37-3	PHOSPHORIC ACID, ZINC SALT (2:1) Irritant	40-70
7664-38-2	PHOSPHORIC ACID Corrosive	15-40

NON-HAZARDOUS INGREDIENTS:

CAS#	CHEMICAL NAME
7732-18-5	WATER

4 First-aid measures

SKIN CONTACT:

URGENT! Wash thoroughly with soap and water. Remove contaminated clothing. Get immediate medical attention. Thoroughly wash clothing before reuse.

EYE CONTACT:

URGENT! Immediately flush eyes with plenty of low-pressure water for at least 20 minutes while removing contact lenses. Hold eyelids apart. Get immediate medical attention.

INHALATION:

Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get immediate medical attention.

INGESTION:

Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting. Immediately contact physician. Rinse mouth with plenty of water. Dilute contents of stomach using 4-10 fluid ounces (120-300 mL) of milk or water.

NOTES TO PHYSICIANS:

Material is corrosive. It may not be advisable to induce vomiting.
Possible mucosal damage may contraindicate the use of gastric lavage.

5 Fire-fighting measures

FIRE FIGHTING INSTRUCTIONS:

Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).

EXTINGUISHING MEDIA:

dry chemical/CO2/foam or water--slippery condition; use sand/grit.

HAZARDOUS DECOMPOSITION PRODUCTS:

oxides of phosphorus

FLASH POINT:

> 200F > 93C P-M(CC)

MISCELLANEOUS:

Corrosive to skin/steel
UN 1805;Emergency Response Guide #154

6 Accidental release measures

PROTECTION AND SPILL CONTAINMENT:

Ventilate area. Use specified protective equipment. Contain and absorb on absorbent material. Place in waste disposal container. Flush area with water. Wet area may be slippery. Spread sand/grit.

DISPOSAL INSTRUCTIONS:

Water contaminated with this product may be sent to a sanitary sewer treatment facility, in accordance with any local agreement, a permitted waste treatment facility or discharged under a permit. Product as is - Incinerate or land dispose in an approved landfill.

7 Handling and storage

HANDLING:

Acidic. Corrosive(Skin/eyes). Do not mix with alkaline material.

STORAGE:

Store between 40 and 100F (4 and 38C). Keep containers closed when not in use. Reasonable and safe chemical storage.

8 Exposure controls / personal protection

EXPOSURE LIMITS**CHEMICAL NAME**

PHOSPHORIC ACID, ZINC SALT (2:1)

PEL (OSHA): NOT DETERMINED

TLV (ACGIH): NOT DETERMINED

PHOSPHORIC ACID

PEL (OSHA): 1 MG/M3

TLV (ACGIH): 1 MG/M3

ENGINEERING CONTROLS:

Adequate ventilation to maintain air contaminants below exposure

limits.

PERSONAL PROTECTIVE EQUIPMENT:

Use protective equipment in accordance with 29CFR 1910 Subpart I

RESPIRATORY PROTECTION:

A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.
USE AIR PURIFYING RESPIRATORS WITHIN USE LIMITATIONS ASSOCIATED WITH THE EQUIPMENT OR ELSE USE SUPPLIED AIR-RESPIRATORS.
If air-purifying respirator use is appropriate, use any of the following particulate respirators: N95, N99, N100, R95, R99, R100, P95, P99 or P100.

SKIN PROTECTION:

gauntlet-type rubber, butyl or neoprene gloves, chemical resistant apron -- Wash off after each use. Replace as necessary.

EYE PROTECTION:

splash proof chemical goggles, face shield

9 Physical and chemical properties

Spec. Grav. (70F, 21C)	1.719	Vapor Pressure (mmHG)	~ 18.0
Freeze Point (F)	< -30	Vapor Density (air=1)	< 1.00
Freeze Point (C)	< -34		
Viscosity (cps 70F, 21C)	70	% Solubility (water)	100.0

Odor	Slight
Appearance	Colorless To Yellow
Physical State	Liquid
Flash Point	P-M(CC) > 200F > 93C
pH As Is (approx.)	< 1.0
Evaporation Rate (Ether=1)	< 1.00
Percent VOC:	0.0

NA = not applicable ND = not determined

10 Stability and reactivity

CHEMICAL STABILITY:

Stable under normal storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS:

Contact with strong bases may cause a violent reaction releasing heat.

INCOMPATIBILITIES:

May react with bases or strong oxidizers.

DECOMPOSITION PRODUCTS:

oxides of phosphorus

11 Toxicological information

Oral LD50 RAT: >2,500 mg/kg
NOTE - Estimated value
Dermal LD50 RABBIT: >5,000 mg/kg
NOTE - Estimated value
Skin Irritation Score RABBIT: CORROSIVE
NOTE - EPA Category I
Eye Irritation Score RABBIT: CORROSIVE
NOTE - Estimated value

12 Ecological information

AQUATIC TOXICOLOGY

Daphnia magna 48 Hour Static Renewal Bioassay
LC50= 12; No Effect Level= 1.5 mg/L
Fathead Minnow 96 Hour Static Renewal Bioassay
LC50= 14; No Effect Level= 2.5 mg/L

BIODEGRADATION

Product contains only inorganics that are not subject to typical biological degradation. Assimilation by microbes may occur in waste treatment or the environment.

13 Disposal considerations

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is :
D002=Corrosive(pH, steel); D006=Cadmium; D008=Lead.

Please be advised; however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

14 Transport information

DOT HAZARD: Corrosive to skin/steel
PROPER SHIPPING NAME: PHOSPHORIC ACID SOLUTION
8, UN 1805, PG III, RQ

DOT EMERGENCY RESPONSE GUIDE #: 154

Note: Some containers may be DOT exempt, please check BOL for exact container classification

15 Regulatory information

TSCA:

All components of this product are included on or are in compliance with the U.S. TSCA regulations.

CERCLA AND/OR SARA REPORTABLE QUANTITY (RQ):

1,952 gallons due to PHOSPHORIC ACID;

NSF Registered and/or meets USDA (according to 1998 Guidelines):

Registration number: 140900

Category Code(s):

- G5 Cooling and retort water treatment products - all food processing areas
- G7 Boiler treatment products - all food processing areas/nonfood contact

SARA SECTION 312 HAZARD CLASS:

Immediate(acute);Delayed(Chronic)

SARA SECTION 302 CHEMICALS:

No regulated constituent present at OSHA thresholds

SARA SECTION 313 CHEMICALS:

CAS#	CHEMICAL NAME	RANGE
13598-37-3	PHOSPHORIC ACID, ZINC SALT (2:1)	41.0-50.0%

CALIFORNIA REGULATORY INFORMATION

CALIFORNIA SAFE DRINKING WATER AND TOXIC

ENFORCEMENT ACT (PROPOSITION 65):

This product contains one or more ingredients at trace levels known to the state of California to cause cancer and reproductive toxicity.

MICHIGAN REGULATORY INFORMATION

No regulated constituent present at OSHA thresholds

16 Other information

HMIS vII

CODE TRANSLATION

Health	3	Serious Hazard
Fire	0	Minimal Hazard
Reactivity	0	Minimal Hazard
Special	CORR	DOT corrosive
(1) Protective Equipment	D	Goggles,Face Shield,Gloves,Apron

(1) refer to section 8 of MSDS for additional protective equipment recommendations.

CHANGE LOG

EFFECTIVE DATE	REVISIONS TO SECTION:	SUPERCEDES
MSDS status: 15-JAN-1998		** NEW **
20-MAY-1998	15	15-JAN-1998
15-JUL-1998	15	20-MAY-1998
11-JAN-1999	10	15-JUL-1998
14-JUL-2000	15	11-JAN-1999
16-AUG-2002	15	14-JUL-2000
24-MAY-2005	4	16-AUG-2002
18-JUN-2009	4, 8, 15	24-MAY-2005
17-AUG-2009	3, 4, 5, 7, 8, 10, 13, 15	18-JUN-2009