



Material Safety Data Sheet

Issue Date: 15-JUN-2011
Supercedes:

FLOGARD POT6100

1 Identification

Identification of substance or preparation
FLOGARD POT6100

Product Application Area
Potable water treatment chemical

Company/Undertaking Identification
GE Betz, Inc.
4636 Somerton Road
Trevose, PA 19053
T 215 355-3300, F 215 953 5524

Emergency Telephone
(800) 877-1940

Prepared by Product Stewardship Group: T 215-355-3300 Prepared on: 15-JUN-2011

2 Hazard(s) identification

EMERGENCY OVERVIEW

CAUTION

May cause slight irritation to the skin. May cause moderate irritation to the eyes. Mists/aerosols may cause irritation to upper respiratory tract.

DOT hazard: Corrosive to aluminum
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, carbon dioxide, foam or water

POTENTIAL HEALTH EFFECTS

ACUTE SKIN EFFECTS:
Primary route of exposure; May cause slight irritation to the skin.

ACUTE EYE EFFECTS:
May cause moderate irritation to the eyes.

ACUTE RESPIRATORY EFFECTS:
Mists/aerosols may cause irritation to upper respiratory tract.

INGESTION EFFECTS:

May cause slight gastrointestinal irritation.

TARGET ORGANS:

No evidence of potential chronic effects.

MEDICAL CONDITIONS AGGRAVATED:

Not known.

SYMPTOMS OF EXPOSURE:

May cause redness or itching of skin.

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%) |
|-----------|---|--------------|
| 7320-34-5 | TETRAPOTASSIUM PYROPHOSPHATE Corrosive to aluminum; severe eye irritant; skin irritant | 40-70 |

NON-HAZARDOUS INGREDIENTS:

| CAS# | CHEMICAL NAME |
|-----------|---------------|
| 7732-18-5 | WATER |

4 First-aid measures

SKIN CONTACT:

Wash thoroughly with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

EYE CONTACT:

Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get immediate medical attention.

INHALATION:

If nasal, throat or lung irritation develops - remove to fresh air and get medical attention.

INGESTION:

Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting. Immediately contact physician. Dilute contents of stomach using 2-8 fluid ounces (60-240 mL) of milk or water.

NOTES TO PHYSICIANS:

No special instructions

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, carbon dioxide, foam or water

HAZARDOUS DECOMPOSITION PRODUCTS:

oxides of phosphorus

FLASH POINT:

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

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:

Normal chemical handling.

STORAGE:

Keep containers closed when not in use. Reasonable and safe chemical storage. Do not store in aluminum containers.

8 Exposure controls / personal protection

EXPOSURE LIMITS**CHEMICAL NAME**

TETRAPOTASSIUM PYROPHOSPHATE

PEL (OSHA): LIMITS HAVE NOT BEEN ESTABLISHED BY US OSHA.

TLV (ACGIH): LIMITS HAVE NOT BEEN ESTABLISHED BY ACGIH.

ENGINEERING CONTROLS:

adequate ventilation

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:

viton or neoprene gloves -- Wash off after each use. Replace as necessary.

EYE PROTECTION:

splash proof chemical goggles

9 Physical and chemical properties

| | | | |
|------------------------|-------|-----------------------|--------|
| Spec. Grav. (70F,21C) | 1.735 | Vapor Pressure (mmHG) | ~ 15.0 |
| Freeze Point (F) | < -30 | Vapor Density (air=1) | < 1.00 |
| Freeze Point (C) | < -34 | | |
| Viscosity(cps 70F,21C) | 78 | % Solubility (water) | 100.0 |

| | |
|----------------------------|----------------------|
| Odor | Slight |
| Appearance | Colorless To Yellow |
| Physical State | Liquid |
| Flash Point | P-M(CC) > 200F > 93C |
| pH As Is (approx.) | 11.0 |
| 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 water reactive compounds may cause fire or explosion.

INCOMPATIBILITIES:

May react violently with water reactive compounds.

DECOMPOSITION PRODUCTS:

oxides of phosphorus

11 Toxicological information

| | |
|---|-------------|
| Oral LD50 RAT: | 1660 mg/kg |
| NOTE - Calculated value according to GHS additivity formula | |
| Dermal LD50 RABBIT: | >5000 mg/kg |
| NOTE - Calculated value according to GHS additivity formula | |
| Skin Irritation Score RABBIT: | 0.5 |
| Eye Irritation Score RABBIT: | 11.1 |

12 Ecological information

AQUATIC TOXICOLOGY

| | |
|--|--|
| Bluegill Sunfish 48 Hour Static Screen | |
| 0% Mortality= 500 mg/L | |
| Daphnia magna 48 Hour Static Renewal Bioassay (pH adjusted) | |
| LC50= 660; No Effect Level= 268 mg/L | |
| Fathead Minnow 96 Hour Static Renewal Bioassay (pH adjusted) | |
| LC50= 785; No Effect Level= 423 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 :
Not applicable.

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

Transportation Hazard: Corrosive to aluminum
DOT: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.(TETRAPOTASSIUM PYROPHOSPHATE)
8, UN 3266, PG III
DOT EMERGENCY RESPONSE GUIDE #: 154
Note: Some containers may be DOT exempt, please check BOL for exact container classification
IATA: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.(TETRAPOTASSIUM PYROPHOSPHATE)
8, UN 3266, PG III
IMDG: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.(TETRAPOTASSIUM PYROPHOSPHATE)
8, UN 3266, PG III

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):

No regulated constituent present at OSHA thresholds

FOOD AND DRUG ADMINISTRATION:

The ingredients in this product are Generally Recognized As Safe by FDA for direct addition to human food.

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

Registration number: 139138

Category Code(s):

- G2 Phosphate products
- G5 Cooling and retort water treatment products - all food processing areas
- G6 Boiler treatment products - all food processing areas/food contact

SARA SECTION 312 HAZARD CLASS:

Immediate(acute)

SARA SECTION 302 CHEMICALS:

No regulated constituent present at OSHA thresholds

SARA SECTION 313 CHEMICALS:

No regulated constituent present at OSHA thresholds

CALIFORNIA REGULATORY INFORMATION

**CALIFORNIA SAFE DRINKING WATER AND TOXIC
ENFORCEMENT ACT (PROPOSITION 65):**

No regulated constituents present

MICHIGAN REGULATORY INFORMATION

No regulated constituent present at OSHA thresholds

16 Other information

| HMIS vII | | CODE TRANSLATION |
|--------------------------|-----|------------------|
| Health | 1 | Slight Hazard |
| Fire | 0 | Minimal Hazard |
| Reactivity | 0 | Minimal Hazard |
| Special | ALK | pH above 12.0 |
| (1) Protective Equipment | B | Goggles, Gloves |

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

CHANGE LOG

| EFFECTIVE DATE | REVISIONS TO SECTION: | SUPERCEDES |
|--------------------------|-----------------------|------------|
| ----- | ----- | ----- |
| MSDS status: 15-JUN-2011 | | ** NEW ** |