

GE Water & Process Technologies

Issue Date: 31-MAR-2011

Supercedes: 01-FEB-2011

Material Safety Data Sheet

GENGARD GN7300

1 Identification

Identification of substance or preparation GENGARD GN7300

Product Application Area

Corrosion inhibitor

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: 31-MAR-2011

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: Mild; Appearance: Colorless To Light 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; 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:

Inhalation may cause irritation of mucous membranes and respiratory tract. Skin contact causes severe irritation or burns.

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%)

7664-38-2 PHOSPHORIC ACID 60-100

Corrosive

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. Dilute contents of stomach using 2-8 fluid ounces $(60-240\ \text{mL})$ 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, carbon dioxide, foam or water

HAZARDOUS DECOMPOSITION PRODUCTS:

oxides of carbon and 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:

Keep containers closed when not in use. Use approved containers only. Store in cool, well-vented area. Contact with metals may release flammable hydrogen gas.

8 Exposure controls / personal protection

EXPOSURE LIMITS

CHEMICAL NAME

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PHOSPHORIC ACID

PEL (OSHA): 1 MG/M3

TLV (ACGIH): TWA = 1 MG/M3; STEL = 3 MG/M3

MISC: NIOSH REL = 1 MG/M3; NIOSH STEL = 3 MG/M3; NIOSH IDLH = 1000

MG/M3
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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 a respirator with HEPA cartridges.

SKIN PROTECTION:

EYE PROTECTION:

splash proof chemical goggles, face shield

9 Physical and chemical properties

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Spec. Grav.(70F,21C) 1.579
                                     Vapor Pressure (mmHG)
Freeze Point (F) < -30
Freeze Point (C) < -34
                                     Vapor Density (air=1) > 1.00
Viscosity(cps 70F,21C) 44
                                    % Solubility (water)
                                                           100.0
Odor
                                 Mild
Appearance
                                 Colorless To Light Yellow
                                Liquid
Physical State
Flash Point P-M(CC)
                               > 200F > 93C
pH As Is (approx.)
                                < 1.0
Evaporation Rate (Ether=1)
                                < 1.00
Percent VOC:
                                  0.0
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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 carbon and phosphorus

11 Toxicological information

Oral LD50 RAT: 2040 mg/kg

NOTE - Calculated value according to GHS additivity formula

Dermal LD50 RABBIT: 3650 mg/kg

NOTE - Calculated value according to GHS additivity formula

Skin Irritation Score RABBIT: CORROSIVE 24hr

NOTE - DOT HM181 Packing Group III: corrosive to skin in 240 minutes but not 60 minutes

Eye Irritation Score RABBIT: CORROSIVE 24hr

Ames Assay: NEGATIVE

12 Ecological information

AQUATIC TOXICOLOGY

Ceriodaphnia 48 Hour Static Screen (pH adjusted)
 85% Mortality= 2500; 5% Mortality= 500 mg/L
Daphnia magna 48 Hour Static Renewal Bioassay (pH adjusted)
 LC50= 3540; No Effect Level= 2100 mg/L
Fathead Minnow 96 Hour Static Renewal Bioassay (pH adjusted)
 LC50= 4200; No Effect Level= 2100 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).

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 skin/steel

DOT: 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

IATA: PHOSPHORIC ACID SOLUTION
8, UN 1805, PG III

IMDG: PHOSPHORIC ACID SOLUTION
8, UN 1805, 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):

507 gallons due to PHOSPHORIC ACID;

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

Registration number: 142960

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:

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
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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

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	DATE	REVISIONS TO SECTION:	SUPERCEDES
MSDS status	: 24-JAN-2011		** NEW **
	01-FEB-2011	8	24-JAN-2011
	31-MAR-2011	15	01-FEB-2011