



# Material Safety Data Sheet

Issue Date: 08-FEB-2012  
Supersedes: 01-FEB-2011

GENGARD GN7110

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## 1 Identification

### Identification of substance or preparation

GENGARD GN7110

### 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: 08-FEB-2012

## 2 Hazard(s) identification

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### EMERGENCY OVERVIEW

#### DANGER

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

DOT hazard: Corrosive to skin

Odor: Slight Ammonia; Appearance: Dark Amber, 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

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### 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 may cause irritation to upper respiratory tract.

#### INGESTION EFFECTS:

May cause gastrointestinal irritation with possible nausea, vomiting, abdominal discomfort and diarrhea.

**TARGET ORGANS:**

Prolonged or repeated exposures may cause primary irritant dermatitis and/or toxicity to the lung.

**MEDICAL CONDITIONS AGGRAVATED:**

Not known.

**SYMPTOMS OF EXPOSURE:**

Causes skin, eye, and/or respiratory irritation. Prolonged or repeated exposure may result in brownish discoloration of the conjunctiva and corneal changes which may lead to decreased visual acuity.

### 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%)
7778-53-2	PHOSPHORIC ACID, TRIPOTASSIUM SALT Severe irritant (eyes); irritant (skin)	15-40
7320-34-5	TETRAPOTASSIUM PYROPHOSPHATE Corrosive to aluminum; severe eye irritant; skin irritant	5-10
1D	ACRYLATE TERPOLYMER Eye irritant	5-10
1310-58-3	POTASSIUM HYDROXIDE Corrosive; toxic (by ingestion)	3-7
202420-04-0	CHLOROTOLYLTRIAZOLE SODIUM SALT Potential irritant	1-5

**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:**

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 carbon, nitrogen and phosphorus; hydrogen chloride

**FLASH POINT:**

> 213F > 101C P-M(CC)

**MISCELLANEOUS:**

Corrosive to skin

UN 3266;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:**

Normal chemical handling.

**STORAGE:**

Keep containers closed when not in use. Do not freeze. If frozen, thaw and mix completely prior to use.

## 8 Exposure controls / personal protection

**EXPOSURE LIMITS**

**CHEMICAL NAME**

PHOSPHORIC ACID, TRIPOTASSIUM SALT

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

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

TETRAPOTASSIUM PYROPHOSPHATE

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

ACRYLATE TERPOLYMER

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

POTASSIUM HYDROXIDE

PEL (OSHA): LIMITS HAVE NOT BEEN ESTABLISHED BY US OSHA.  
TLV (ACGIH): TWA (Ceiling) = 2 MG/M3

CHLOROTOLYLTRIAZOLE SODIUM SALT

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

**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 butyl or rubber 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)	1.324	Vapor Pressure (mmHG)	~ 18.0
Freeze Point (F)	3	Vapor Density (air=1)	< 1.00
Freeze Point (C)	-16		
Viscosity(cps 70F,21C)	35	% Solubility (water)	100.0

Odor	Slight Ammonia
Appearance	Dark Amber
Physical State	Liquid
Flash Point	P-M(CC) > 213F > 101C
pH As Is (approx.)	> 13.0
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 acids may cause a violent reaction releasing heat.

**INCOMPATIBILITIES:**

May react with acids or strong oxidizers.

**DECOMPOSITION PRODUCTS:**

oxides of carbon, nitrogen and phosphorus; hydrogen chloride

## 11 Toxicological information

Oral LD50 RAT: >2000 mg/kg

## 12 Ecological information

**AQUATIC TOXICOLOGY**

Daphnia magna 48 Hour Acute Toxicity (Estimated)

LC50= 1100; No Effect Level= 580 mg/L

Fathead Minnow 96 Hour Acute Toxicity (Estimated)

LC50= 470; No Effect Level= 205 mg/L

**BIODEGRADATION**

BOD-28 (mg/g): 14

BOD-5 (mg/g): 8

COD (mg/g): 116

TOC (mg/g): 36

## 13 Disposal considerations

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

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

DOT: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.(POTASSIUM HYDROXIDE SOLUTION)

8, UN3266, PG III RQ

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.(POTASSIUM HYDROXIDE SOLUTION)

8, UN3266, PG III

IMDG: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE SOLUTION)  
8, UN3266, 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):

2,336 gallons due to POTASSIUM HYDROXIDE;

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

Registration number: 141938

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):

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

### MICHIGAN REGULATORY INFORMATION

No regulated constituent present at OSHA thresholds

## 16 Other information

### HMIS vII

### CODE TRANSLATION

Health	3	Serious Hazard
Fire	1	Slight 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
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MSDS status:	31-OCT-2008		** NEW **
	21-NOV-2008		31-OCT-2008
	08-JUN-2009	10,12	21-NOV-2008
	15-JUN-2009	15	08-JUN-2009

16-JUN-2009 15  
01-FEB-2011 8  
08-FEB-2012 2, 4, 5, 8, 14, 16

15-JUN-2009  
16-JUN-2009  
01-FEB-2011