



# Material Safety Data Sheet

Issue Date: 20-AUG-2011  
Supersedes: 01-FEB-2011

GENGARD GN7210

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## 1 Identification

**Identification of substance or preparation**  
GENGARD GN7210

**Product Application Area**  
Water-based 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: 20-AUG-2011

## 2 Hazard(s) identification

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**EMERGENCY OVERVIEW**

**WARNING**

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

DOT hazard: Corrosive to aluminum  
Odor: Mild; Appearance: Amber To Brown, 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; May cause slight irritation to the skin.

**ACUTE EYE EFFECTS:**

Severe irritant to the eyes.

**ACUTE RESPIRATORY EFFECTS:**

Mists/aerosols may cause irritation to upper respiratory tract.

**INGESTION EFFECTS:**

May cause gastrointestinal irritation.

**TARGET ORGANS:**

Prolonged or repeated exposures may cause primary irritant dermatitis.

**MEDICAL CONDITIONS AGGRAVATED:**

Not known.

**SYMPTOMS OF EXPOSURE:**

May cause redness or itching of skin, irritation, and/or tearing of eyes (direct contact).

### 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.

**HAZARDOUS INGREDIENTS:**

| Cas#        | Chemical Name                                                                             | Range (w/w%) |
|-------------|-------------------------------------------------------------------------------------------|--------------|
| 7778-53-2   | PHOSPHORIC ACID, TRIPOTASSIUM SALT<br>Severe irritant (eyes); irritant (skin)             | 15-40        |
| 7320-34-5   | TETRAPOTASSIUM PYROPHOSPHATE<br>Corrosive to aluminum; severe eye irritant; skin irritant | 7-13         |
| 202420-04-0 | CHLOROTOLYLTRIAZOLE SODIUM SALT<br>Potential irritant                                     | 1-5          |
| 68515-73-1  | D-GLUCOSE, DECYL OCTYL ETHERS, OLIGOMERIC<br>Irritant (eyes)                              | 1-5          |

### 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 carbon, nitrogen and phosphorus; hydrogen chloride

### **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:**

Alkaline. Do not mix with acidic material. Normal chemical handling.

### **STORAGE:**

Keep containers closed when not in use. Protect from freezing. Do not store at elevated temperatures. Store away from acids. Do not store in aluminum containers.

## 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.

#### CHLOROTOLYLTRIAZOLE SODIUM SALT

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

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

#### D-GLUCOSE, DECYL OCTYL ETHERS, OLIGOMERIC

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:**

rubber, butyl 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)  | 1.419 | Vapor Pressure (mmHG) | ~ 18.0 |
| Freeze Point (F)       | -4    | Vapor Density (air=1) | < 1.00 |
| Freeze Point (C)       | -20   |                       |        |
| Viscosity(cps 70F,21C) | 22    | % Solubility (water)  | 100.0  |

|                            |                      |
|----------------------------|----------------------|
| Odor                       | Mild                 |
| Appearance                 | Amber To Brown       |
| Physical State             | Liquid               |
| Flash Point                | P-M(CC) > 200F > 93C |
| pH As Is (approx.)         | 13.8                 |
| 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 strong oxidizers.

**DECOMPOSITION PRODUCTS:**

oxides of carbon, nitrogen and phosphorus; hydrogen chloride

## 11 Toxicological information

|                                                             |             |
|-------------------------------------------------------------|-------------|
| Oral LD50 RAT:                                              | 4050 mg/kg  |
| NOTE - Calculated value according to GHS additivity formula |             |
| Dermal LD50 RABBIT:                                         | >5000 mg/kg |
| NOTE - Calculated value according to GHS additivity formula |             |

## 12 Ecological information

### AQUATIC TOXICOLOGY

Daphnia magna 48 Hour Static Renewal Bioassay (pH adjusted)  
45% Mortality= 2000; No Effect Level= 1000 mg/L  
Fathead Minnow 96 Hour Static Renewal Bioassay (pH adjusted)  
LC50= 354; No Effect Level= 125 mg/L  
Rainbow Trout 96 Hour Static Renewal Bioassay (pH adjusted)  
LC50= 295; No Effect Level= 125 mg/L

### BIODEGRADATION

BOD-28 (mg/g): 2  
BOD-5 (mg/g): 2  
COD (mg/g): 49  
TOC (mg/g): 16

## 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 aluminum  
DOT: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.(POTASSIUM HYDROXIDE SOLUTION)  
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.(POTASSIUM HYDROXIDE SOLUTION)  
8, UN 3266, PG III  
IMDG: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.(POTASSIUM HYDROXIDE SOLUTION)  
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

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

Registration number: Not Registered

### 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 |
|--------------------------|------|------------------|
| Health                   | 2    | Moderate Hazard  |
| Fire                     | 0    | Minimal Hazard   |
| Reactivity               | 0    | Minimal Hazard   |
| Special                  | CORR | DOT corrosive    |
| (1) Protective Equipment | B    | Goggles,Gloves   |

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

### CHANGE LOG

|              | EFFECTIVE<br>DATE | REVISIONS TO SECTION: | SUPERCEDES  |
|--------------|-------------------|-----------------------|-------------|
|              | -----             | -----                 | -----       |
| MSDS status: | 29-JAN-2010       |                       | ** NEW **   |
|              | 03-DEC-2010       | 7,10                  | 29-JAN-2010 |
|              | 01-FEB-2011       | 8                     | 03-DEC-2010 |
|              | 20-AUG-2011       | 11                    | 01-FEB-2011 |