



# Material Safety Data Sheet

Issue Date: 11-MAY-2012  
Supersedes: 27-MAY-2011

GENGARD GN8221

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## 1 Identification

**Identification of substance or preparation**  
GENGARD GN8221

**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: 11-MAY-2012

## 2 Hazard(s) identification

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**EMERGENCY OVERVIEW**

**WARNING**

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

DOT hazard: Corrosive to steel  
Odor: Slight.Pleasant; Appearance: 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; May cause moderate irritation to the skin.

**ACUTE EYE EFFECTS:**

Severe irritant 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 primary irritant dermatitis.

**MEDICAL CONDITIONS AGGRAVATED:**

Not known.

**SYMPTOMS OF EXPOSURE:**

Inhalation may cause irritation of the respiratory tract. Skin contact may cause itching and/or redness.

### 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%)
	TRADE SECRET INGREDIENT (E069);TSRN 125438 - 5052P Irritant (eyes)	*
7664-38-2	PHOSPHORIC ACID Corrosive	5-10
	TRADE SECRET INGREDIENT (E06J);TSRN 125438 - 11754 May cause mild eye irritation	*

**NON-HAZARDOUS INGREDIENTS:**

CAS#	CHEMICAL NAME
7732-18-5	WATER
903573-39-7	ACRYLATE TERPOLYMER

### 4 First-aid measures

**SKIN CONTACT:**

Wash thoroughly with soap and water. Remove contaminated clothing. Thoroughly wash clothing before reuse. 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:**

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, carbon dioxide, foam or water

**HAZARDOUS DECOMPOSITION PRODUCTS:**

oxides of carbon and phosphorus

**FLASH POINT:**

> 213F > 101C 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:**

Acidic. Do not mix with alkaline material.

**STORAGE:**

Keep containers closed when not in use. Protect from freezing. If frozen, thaw and mix completely prior to use. Avoid moisture contamination.

## 8 Exposure controls / personal protection

**EXPOSURE LIMITS**

**CHEMICAL NAME**

TRADE SECRET INGREDIENT(E069);TSRN 125438 - 5052P

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

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

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

TRADE SECRET INGREDIENT(E06J);TSRN 125438 - 11754  
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 a respirator with HEPA cartridges.

**SKIN PROTECTION:**

rubber, butyl, 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)	1.127	Vapor Pressure (mmHG)	~ 18.0
Freeze Point (F)	28	Vapor Density (air=1)	< 1.00
Freeze Point (C)	-2		
Viscosity(cps 70F,21C)	17	% Solubility (water)	100.0

Odor	Slight.Pleasant		
Appearance	Amber		
Physical State	Liquid		
Flash Point	P-M(CC)	> 213F	> 101C
pH As Is (approx.)	2.1		
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 carbon and phosphorus

## 11 Toxicological information

Oral LD50 RAT: >5000 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 Acute Toxicity (Estimated)  
LC50= 1587; No Effect Level= 1090 mg/L  
Fathead Minnow 96 Hour Acute Toxicity (Estimated)  
LC50= 459; No Effect Level= 320 mg/L

### BIODEGRADATION

BOD-28 (mg/g): 35  
BOD-5 (mg/g): 15  
COD (mg/g): 229  
TOC (mg/g): 70

## 13 Disposal considerations

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is :  
D002=Corrosive(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 steel  
DOT: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(ACRYLATE TERPOLYMER, PHOSPHORIC ACID)  
8, UN3265, PG III  
DOT EMERGENCY RESPONSE GUIDE #: 153  
Note: Some containers may be DOT exempt, please check BOL for exact container classification  
IATA: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(ACRYLATE TERPOLYMER, PHOSPHORIC ACID)  
8, UN3265, PG III  
IMDG: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(ACRYLATE TERPOLYMER, PHOSPHORIC ACID)  
8, UN3265, 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: 145784

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	2	Moderate Hazard
Fire	1	Slight 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 DATE	REVISIONS TO SECTION:	SUPERCEDES
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MSDS status:	28-JAN-2010		** NEW **
	24-AUG-2010	14	28-JAN-2010
	01-FEB-2011	8	24-AUG-2010
	05-APR-2011	11	01-FEB-2011
	12-APR-2011	3,8	05-APR-2011
	27-MAY-2011	3,8	12-APR-2011
	11-MAY-2012	12,15	27-MAY-2011