



# Material Safety Data Sheet

Issue Date: 13-AUG-2012  
Supersedes: 02-APR-2012

## OPTIGUARD MCA620

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### 1 Identification

**Identification of substance or preparation**  
OPTIGUARD MCA620

**Product Application Area**  
Internal boiler treatment.

**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: 13-AUG-2012

### 2 Hazard(s) identification

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**EMERGENCY OVERVIEW**

**WARNING**

May cause moderate irritation to the skin. Absorbed by skin. Severe irritant to the eyes. Irritation of the upper respiratory tract. Prolonged exposure may cause dizziness and headache.

DOT hazard is not applicable  
Odor: Strong; Appearance: Yellow To 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. Absorbed by skin.

**ACUTE EYE EFFECTS:**

Severe irritant to the eyes.

**ACUTE RESPIRATORY EFFECTS:**

Primary route of exposure;Irritation of the upper respiratory

tract. Prolonged exposure may cause dizziness and headache.

**INGESTION EFFECTS:**

May cause gastrointestinal irritation with possible nausea, vomiting, diarrhea, incoordination, mental confusion, dizziness and lethargy.

**TARGET ORGANS:**

Prolonged or repeated exposures may cause toxicity to the liver, kidney and/or nervous system.

**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%)
10117-38-1	POTASSIUM SULFITE Transient irritant; potential sensitizer (skin and respiratory)	10-20
100-37-8	DIETHYLAMINOETHANOL (DEAE) Flammable liquid; corrosive (skin)	3-7
110-91-8	MORPHOLINE Flammable liquid; corrosive; toxic (by skin absorption); potential liver and kidney toxin; IARC=3 (carcinogen status not classifiable)	1-5

**NON-HAZARDOUS INGREDIENTS:**

CAS#	CHEMICAL NAME
7732-18-5	WATER TRADE SECRET (N326) TSRN: 125438 - 6229

### 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:**

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. 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:**

elemental oxides

**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. Protect from freezing. If frozen, thaw and mix completely prior to use. Atmospheric exposure should be minimized. Avoid high temperature storage.

## 8 Exposure controls / personal protection

**EXPOSURE LIMITS****CHEMICAL NAME**

## POTASSIUM SULFITE

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

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

## DIETHYLAMINOETHANOL (DEAE)

PEL (OSHA): 10 PPM(SKIN)  
TLV (ACGIH): 2 PPM(SKIN)

MORPHOLINE

PEL (OSHA): 20 PPM (30PPM-STEL)-SKIN  
TLV (ACGIH): 20 PPM (30PPM-STEL)-SKIN-A4

**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 organic vapor cartridges and dust/mist prefilters.

**SKIN PROTECTION:**

gauntlet-type neoprene 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)	1.124	Vapor Pressure (mmHG)	~ 18.0
Freeze Point (F)	12	Vapor Density (air=1)	> 1.00
Freeze Point (C)	-11		
Viscosity(cps 70F, 21C)	16	% Solubility (water)	100.0
Odor		Strong	
Appearance		Yellow To Amber	
Physical State		Liquid	
Flash Point	P-M(CC)	> 200F > 93C	
pH As Is (approx.)		12.1	
Evaporation Rate (Ether=1)		< 1.00	
Percent VOC:		8.0	

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:**

elemental oxides

## 11 Toxicological information

Oral LD50 RAT: >2,000 mg/kg  
NOTE - Estimated value  
Dermal LD50 RABBIT: >2,000 mg/kg  
NOTE - Estimated value

## 12 Ecological information

### AQUATIC TOXICOLOGY

Daphnia magna 48 Hour Acute Toxicity (Estimated)  
LC50= 790; No Effect Level= 580 mg/L  
Fathead Minnow 96 Hour Acute Toxicity (Estimated)  
LC50= 1220; No Effect Level= 590 mg/L  
Menidia beryllina (Silversides) 96 Hour Static Acute Bioassay  
LC50= 1980; No Effect Level= 500 mg/L  
Mysid Shrimp 48 Hour Static Acute Bioassay  
LC50= 370; No Effect Level= 250 mg/L

### BIODEGRADATION

BOD-28 (mg/g): 51  
BOD-5 (mg/g): 0  
COD (mg/g): 221  
TOC (mg/g): 61

## 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: Not Applicable  
DOT: Not Regulated

DOT EMERGENCY RESPONSE GUIDE #: Not applicable  
Note: Some containers may be DOT exempt, please check BOL for exact container classification  
IATA: Not Regulated

IMDG: Not Regulated

## 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:**

This product can be used as a boiler water additive in applications requiring compliance with FDA regulation 21 CFR 173.310.

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

Registration number: 145981

Category Code(s):

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

**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	1	Slight Hazard
Reactivity	0	Minimal Hazard
Special	NONE	No special Hazard
(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:	01-DEC-1997		** NEW **
	02-MAY-2000	2	01-DEC-1997
	05-MAY-2000	15	02-MAY-2000
	15-AUG-2000	15	05-MAY-2000
	27-FEB-2002	4	15-AUG-2000
	03-JUL-2002	12	27-FEB-2002
	14-MAR-2003	3,4	03-JUL-2002
	02-APR-2012	4,10	14-MAR-2003
	13-AUG-2012	15	02-APR-2012