



# Material Safety Data Sheet

Issue Date: 21-MAR-2013  
Supersedes: 06-JUL-2011

## SPECTRUS NX104

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### 1 Identification

**Identification of substance or preparation**  
SPECTRUS NX104

**Product Application Area**  
Water-based microbial control agent.

**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: 21-MAR-2013

### 2 Hazard(s) identification

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**EMERGENCY OVERVIEW**

**DANGER**

Corrosive. May be absorbed by skin. Skin sensitizer. Corrosive to the eyes. Vapors, gases, mists and/or aerosols cause irritation to the upper respiratory tract.

DOT hazard: Toxic, Flammable  
Odor: Slight Pungent; Appearance: Yellow, Liquid

Fire fighters should wear positive pressure self-contained breathing apparatus(full face-piece type). Proper fire-extinguishing media: dry chemical/CO2/foam or water--slippery condition; use sand/grit.

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**POTENTIAL HEALTH EFFECTS**

**ACUTE SKIN EFFECTS:**

Primary route of exposure; Corrosive. May be absorbed by skin. Skin sensitizer.

**ACUTE EYE EFFECTS:**

Corrosive to the eyes.

**ACUTE RESPIRATORY EFFECTS:**

Primary route of exposure;Toxic;Vapors, gases, mists and/or

aerosols cause irritation to the upper respiratory tract.

**INGESTION EFFECTS:**

May cause severe gastrointestinal irritation.

**TARGET ORGANS:**

Prolonged or repeated exposures may cause primary irritant dermatitis and/or skin sensitization.

**MEDICAL CONDITIONS AGGRAVATED:**

Not known.

**SYMPTOMS OF EXPOSURE:**

Inhalation of vapors/mists/aerosols cause eye, nose, throat and lung irritation. Skin contact may cause redness, itching, dermatitis, or skin sensitization.

### 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%)
13590-97-1	DODECYLGUANIDINE HYDROCHLORIDE (DGH) Corrosive (skin and eyes)	7-13
6317-18-6	METHYLENE BIS(THIOCYANATE) Corrosive (eyes); toxic (by ingestion); irritant (skin); potential sensitizer (skin)	5-10
67-63-0	2-PROPANOL Flammable liquid; eye irritant; May cause drowsiness or dizziness IARC=3 (carcinogen status not classifiable)	3-7

### 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:**

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 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/CO2/foam or water--slippery condition; use sand/grit.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

oxides of carbon, nitrogen, and sulfur; and hydrogen chloride

**FLASH POINT:**

120F 49C SETA(CC)

**MISCELLANEOUS:**

Toxic, Flammable

Emergency Response Guide #

## 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. Remove ignition sources. Flush area with water. 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 - Dispose of in approved pesticide facility or according to label instructions.

## 7 Handling and storage

**HANDLING:**

Flammable. Bond and ground containers during filling or discharge. Do not use near sparks, flames or sources of ignition. Corrosive to skin. Corrosive to eyes.

**STORAGE:**

Keep containers closed when not in use. Store in cool ventilated location. Store away from oxidizers. Keep away from flames or sparks.

## 8 Exposure controls / personal protection

**EXPOSURE LIMITS**

**CHEMICAL NAME**

DODECYLGUANIDINE HYDROCHLORIDE (DGH)

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

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

METHYLENE BIS(THIOCYANATE)

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

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

2-PROPANOL

PEL (OSHA): 400 PPM

TLV (ACGIH): TWA = 200 PPM; STEL = 400 PPM; 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 and HEPA cartridges.

**SKIN PROTECTION:**

gauntlet-type butyl or 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)	1.095	Vapor Pressure (mmHG)	24.0
Freeze Point (F)	< -30	Vapor Density (air=1)	> 1.00
Freeze Point (C)	< -34		
Viscosity (cps 70F, 21C)	64	% Solubility (water)	< 1.0

Odor	Slight Pungent
Appearance	Yellow
Physical State	Liquid
Flash Point	SETA(CC) 120F 49C
pH As Is (approx.)	3.2
Evaporation Rate (Water=1)	< 1.00
Percent VOC:	4.8

NA = not applicable      ND = not determined

## 10 Stability and reactivity

**CHEMICAL STABILITY:**

Stable under normal storage conditions.

**POSSIBILITY OF HAZARDOUS REACTIONS:**

Friction, heat or other sources of ignition may cause a violent reaction releasing heat and toxic fumes. Contact with oxidizers may cause fire or explosion.

**INCOMPATIBILITIES:**

May react with strong oxidizers.

**DECOMPOSITION PRODUCTS:**

oxides of carbon, nitrogen, and sulfur; and hydrogen chloride

## 11 Toxicological information

Oral LD50 RAT: 668 mg/kg  
Dermal LD50 RABBIT: >5000 mg/kg  
NOTE - Calculated according to GHS additivity formula  
Inhalation LC50 RAT: 0.6 mg/L/4hr  
Skin Irritation Score RABBIT: 4.9 (Max=8)  
Eye Irritation Score RABBIT: 102 (Max=110)  
Skin Sensitization G.PIG: POSITIVE  
NOTE - Magnusson & Kligman method

## 12 Ecological information

### AQUATIC TOXICOLOGY

Bluegill Sunfish 96 Hour Static Acute Bioassay  
LC50= 2.7; No Effect Level= 1.5 mg/L  
Daphnia magna 48 Hour Static Renewal Bioassay  
LC50= .26; No Effect Level= .14 mg/L  
Fathead Minnow 96 Hour Static Renewal Bioassay  
LC50= 1.1; No Effect Level= .36 mg/L  
Rainbow Trout 96 Hour Static Acute Bioassay  
LC50= 2.7; No Effect Level= 1.33 mg/L

### BIODEGRADATION

BOD-28 (mg/g): 518  
BOD-5 (mg/g): 93  
COD (mg/g): 1424  
TOC (mg/g): 418

## 13 Disposal considerations

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is :  
D001=Ignitable.

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: Toxic, Flammable  
DOT:

DOT EMERGENCY RESPONSE GUIDE #: Not applicable

Note: Some containers may be DOT exempt, please check BOL for exact container classification

IATA: PESTICIDES, LIQUID, TOXIC, FLAMMABLE, N.O.S. (DODECYLGUANIDINE MONOHYDROCHLORIDE; ISOPROPYL ALCOHOL)  
6.1(3), UN2903, PG III  
IMDG: PESTICIDES, LIQUID, TOXIC, FLAMMABLE, N.O.S. (DODECYLGUANIDINE MONOHYDROCHLORIDE; ISOPROPYL ALCOHOL)  
6.1(3), UN2903, PG III (DODECYLGUANIDINE MONOHYDROCHLORIDE)  
MARINE POLLUTANT

## 15 Regulatory information

### TSCA:

This is an EPA registered biocide and is exempt from TSCA inventory requirements.

### CERCLA AND/OR SARA REPORTABLE QUANTITY (RQ):

No regulated constituent present at OSHA thresholds

### FIFRA REGISTRATION NUMBER:

3876- 121

### FOOD AND DRUG ADMINISTRATION:

The ingredients in this product are approved by FDA under 21 CFR 176.300.

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

Registration number: Not Registered  
G5, G7

### SARA SECTION 312 HAZARD CLASS:

Immediate(acute);Delayed(Chronic);Fire

### 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 and reproductive toxicity.

### MICHIGAN REGULATORY INFORMATION

No regulated constituent present at OSHA thresholds

## 16 Other information

### HMIS vII

### CODE TRANSLATION

Health	3	Serious Hazard
Fire	2	Moderate 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:	03-OCT-1997		** NEW **
	02-DEC-1997	15	03-OCT-1997
	23-DEC-1997	15	02-DEC-1997
	01-JUN-1998	8	23-DEC-1997
	12-JAN-1999	3, 7	01-JUN-1998
	22-MAR-2002	4	12-JAN-1999
	28-APR-2003	9	22-MAR-2002
	07-MAY-2008	4, 5, 7, 10, 15	28-APR-2003
	17-APR-2009	3, 7, 10	07-MAY-2008

17-SEP-2009 2, 7, 8, 10, 16  
17-NOV-2009 2, 5, 14  
06-JUL-2011 14  
21-MAR-2013 7

17-APR-2009  
17-SEP-2009  
17-NOV-2009  
06-JUL-2011