



# Material Safety Data Sheet

Issue Date: 19-JAN-2010  
Supercedes: 19-JAN-2007

## CONTINUUM AT3203

---

### 1 Identification

**Identification of substance or preparation**  
CONTINUUM AT3203

**Product Application Area**  
Water-based corrosion inhibitor/deposit 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: 19-JAN-2010

### 2 Hazard(s) identification

\*\*\*\*\*  
**EMERGENCY OVERVIEW**

**DANGER**

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

DOT hazard: Corrosive to skin  
Odor: Slight; 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

\*\*\*\*\*

**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 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 and/or tissue necrosis.

**MEDICAL CONDITIONS AGGRAVATED:**

Not known.

**SYMPTOMS OF EXPOSURE:**

Causes severe irritation, burns or tissue ulceration with subsequent scarring.

### 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%) |
|------------|--|--------------|
| 1310-73-2  | SODIUM HYDROXIDE<br>Corrosive; toxic (by ingestion)  | 10-20        |
| 3794-83-0  | PHOSPHONIC ACID, (HYDROXYETHYLIDENE) BIS-,<br>TETRASODIUM SALT<br>Eye irritant; slight skin irritant                   | 7-13         |
| 64665-57-2 | BENZOTRIAZOLE, METHYL, SODIUM SALT (SODIUM<br>TOLYLTRIAZOLE), (TTA)<br>Corrosive (eyes and skin); toxic (by ingestion) | 3-7          |
| 1314-13-2  | ZINC OXIDE<br>Metal fume fever   | 1-5          |

**NON-HAZARDOUS INGREDIENTS:**

| CAS#       | CHEMICAL NAME  |
|------------|--|
| 7732-18-5  | WATER  |
| 78266-09-8 | 2-PROPENOIC ACID POLYMER WITH 2-HYDROXY-3-(2-PROPENYLOXY)-1-PROPANE SULFONIC ACID, SODIUM SALT |

### 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. 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, nitrogen and phosphorus

**FLASH POINT:**

> 200F > 93C P-M(CC)

**MISCELLANEOUS:**

Corrosive to skin

UN 1824;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:**

Alkaline. Corrosive (Skin/eyes). Do not mix with acidic material.

**STORAGE:**

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

## 8 Exposure controls / personal protection

**EXPOSURE LIMITS**

**CHEMICAL NAME**

SODIUM HYDROXIDE

PEL (OSHA): 2 MG/M3  
TLV (ACGIH): TWA (Ceiling) = 2 MG/M3

PHOSPHONIC ACID, (HYDROXYETHYLIDENE)BIS-, TETRASODIUM SALT

PEL (OSHA): NOT DETERMINED  
TLV (ACGIH): NOT DETERMINED

BENZOTRIAZOLE, METHYL, SODIUM SALT (SODIUM TOLYLTRIAZOLE), (TTA)

PEL (OSHA): NOT DETERMINED  
TLV (ACGIH): NOT DETERMINED

ZINC OXIDE

PEL (OSHA): 10 MG/M3 (AS DUST)  
TLV (ACGIH): 2 MG/M3 - TWA (FUME); 10 MG/M3 - STEL (FUME)

**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 rubber, 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)   | 1.309 | Vapor Pressure (mmHG) | ~ 18.0 |
| Freeze Point (F)         | < -30 | Vapor Density (air=1) | < 1.00 |
| Freeze Point (C)         | < -34 |                       |        |
| Viscosity (cps 70F, 21C) | 63    | % Solubility (water)  | 100.0  |

|                            |                      |
|----------------------------|----------------------|
| Odor                       | Slight               |
| Appearance                 | Amber                |
| Physical State             | Liquid               |
| Flash Point                | P-M(CC) > 200F > 93C |
| 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.

**DECOMPOSITION PRODUCTS:**

oxides of carbon, nitrogen and phosphorus

## 11 Toxicological information

Oral LD50 RAT: 1,150 mg/kg  
NOTE - Estimated value  
Dermal LD50 RABBIT: >5,000 mg/kg  
NOTE - Estimated value

## 12 Ecological information

**AQUATIC TOXICOLOGY**

Daphnia magna 48 Hour Static Renewal Bioassay (pH adjusted)  
LC50= 928.4; No Effect Level= 549 mg/L  
Fathead Minnow 96 Hour Static Renewal Bioassay (pH adjusted)  
LC50= 1800; No Effect Level= 845 mg/L  
Rainbow Trout 96 Hour Static Renewal Bioassay (pH adjusted)  
LC50= 33.5; No Effect Level= 7.8 mg/L

**BIODEGRADATION**

BOD-28 (mg/g): 2  
BOD-5 (mg/g): 0  
COD (mg/g): 184  
TOC (mg/g): 59

## 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: SODIUM HYDROXIDE SOLUTION  
 8, UN 1824, PG II, RQ  
 DOT EMERGENCY RESPONSE GUIDE #: 154  
 Note: Some containers may be DOT exempt, please check BOL for exact container classification  
 IATA: SODIUM HYDROXIDE SOLUTION  
 8, UN 1824, PG II  
 IMDG: SODIUM HYDROXIDE SOLUTION  
 8, UN 1824, PG II

## 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):

785 gallons due to SODIUM HYDROXIDE;

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

Registration number: Not Registered

This product contains ingredients that have been determined as safe for use in systems for cooking or cooling containers of meat and/or poultry and in systems with no food contact. (G5, G7)

### SARA SECTION 312 HAZARD CLASS:

Immediate(acute);Delayed(Chronic)

### SARA SECTION 302 CHEMICALS:

No regulated constituent present at OSHA thresholds

### SARA SECTION 313 CHEMICALS:

| CAS#      | CHEMICAL NAME | RANGE    |
|-----------|---------------|----------|
| 1314-13-2 | ZINC OXIDE    | 2.0-5.0% |

### 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

| CAS#      | CHEMICAL NAME |
|-----------|---------------|
| 1314-13-2 | ZINC OXIDE    |

## 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<br>DATE<br>----- | REVISIONS TO SECTION:<br>----- | SUPERCEDES<br>----- |
|--------------|----------------------------|--------------------------------|---------------------|
| MSDS status: | 15-JUN-1998                |                                | ** NEW **           |
|              | 02-JAN-2003                | 15                             | 15-JUN-1998         |
|              | 26-MAY-2006                | 8                              | 02-JAN-2003         |
|              | 19-JAN-2007                | 2, 4, 5, 8, 10, 15             | 26-MAY-2006         |
|              | 19-JAN-2010                | 4, 7, 8, 10, 14                | 19-JAN-2007         |