



Material Safety Data Sheet

Issue Date: 26-AUG-2009
Supersedes: 07-AUG-2009

CONTINUUM AT209

1 Identification

Identification of substance or preparation
CONTINUUM AT209

Product Application Area
Corrosion inhibitor/dispersant.

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: 26-AUG-2009

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: Mild; Appearance: Light 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

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, toxicity to the lungs 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.

HAZARDOUS INGREDIENTS:

Cas#	Chemical Name	Range (w/w%)
1310-73-2	SODIUM HYDROXIDE Corrosive; toxic (by ingestion)	7-13
3794-83-0	PHOSPHONIC ACID, (HYDROXYETHYLIDENE)BIS-, TETRASODIUM SALT Eye irritant; slight skin irritant	5-10
12034-31-0	SODIUM ZINCATE Irritant	1-5
64665-57-2	BENZOTRIAZOLE, METHYL, SODIUM SALT (SODIUM TOLYLTRIAZOLE), (TTA) Corrosive (eyes and skin); toxic (by ingestion)	1-5
7631-95-0	SODIUM MOLYBDATE (MOLYBDIC ACID, DISODIUM SALT) Potential irritant (respiratory); potential lung toxicity	1-5

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, phosphorus and sulfur, hydrogen chloride

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.

8 Exposure controls / personal protection

EXPOSURE LIMITS**CHEMICAL NAME**

SODIUM HYDROXIDE

PEL (OSHA): 2 MG/M3

TLV (ACGIH): TWA (Ceiling) = MG/M3

PHOSPHONIC ACID, (HYDROXYETHYLIDENE)BIS-, TETRASODIUM SALT

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

SODIUM ZINCATE

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

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

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

SODIUM MOLYBDATE (MOLYBDIC ACID, DISODIUM SALT)

PEL (OSHA): 5 MG/M3 (AS Mo)
TLV (ACGIH): 0.5 MG/M3 (AS Mo) RESPIRABLE FRACTION

8) EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

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)	1.218	Vapor Pressure (mmHG)	~ 18.0
Freeze Point (F)	-1	Vapor Density (air=1)	< 1.00
Freeze Point (C)	-18		
Viscosity (cps 70F, 21C)	23	% Solubility (water)	100.0

Odor	Mild
Appearance	Light Yellow To Amber
Physical State	Liquid
Flash Point	P-M(CC) > 200F > 93C
pH As Is (approx.)	13.9
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, phosphorus and sulfur, hydrogen chloride

11 Toxicological information

Oral LD50 RAT: ~1,450 mg/kg
NOTE - Estimated value
Dermal LD50 RABBIT: >2,000 mg/kg
NOTE - Estimated value

12 Ecological information

AQUATIC TOXICOLOGY

Daphnia magna 48 Hour Static Renewal Bioassay (pH adjusted)

LC50= 3640; No Effect Level= 2000 mg/L

Fathead Minnow 96 Hour Acute Toxicity (Estimated)

LC50= 110; No Effect Level= 48 mg/L

BIODEGRADATION

BOD-28 (mg/g): 11

BOD-5 (mg/g): 3

COD (mg/g): 111

TOC (mg/g): 33

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

DOT HAZARD: Corrosive to skin
PROPER SHIPPING NAME: 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

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):

1,240 gallons due to SODIUM HYDROXIDE;

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)

SARA SECTION 302 CHEMICALS:

No regulated constituent present at OSHA thresholds

SARA SECTION 313 CHEMICALS:

CAS#	CHEMICAL NAME	RANGE
12034-31-0	SODIUM ZINCATE	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

No regulated constituent present at OSHA thresholds

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 DATE	REVISIONS TO SECTION:	SUPERCEDES
	-----	-----	-----
MSDS status:	14-FEB-1997		** NEW **
	15-MAY-1997	15	14-FEB-1997
	12-MAY-1998	12	15-MAY-1997
	03-JAN-2002	2, 3, 4, 8, 16	12-MAY-1998
	24-MAR-2005	2	03-JAN-2002
	26-MAY-2006	8	24-MAR-2005
	03-DEC-2008	4, 5, 8, 10, 13	26-MAY-2006
	15-MAY-2009	3, 4, 8, 10, 13	03-DEC-2008
	07-AUG-2009	3, 8, 15	15-MAY-2009
	26-AUG-2009	16	07-AUG-2009