



Material Safety Data Sheet

Issue Date: 14-JUL-2010
Supersedes: 28-SEP-2009

DEPOSITROL BL5400

1 Identification

Identification of substance or preparation
DEPOSITROL BL5400

Product Application Area
Water-based deposit control agent.

Company/Undertaking Identification
GE Betz, Inc.
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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: 14-JUL-2010

2 Hazard(s) identification

EMERGENCY OVERVIEW

DANGER

May cause moderate irritation to the skin. Corrosive to the eyes.
Inhalation of vapor or mist may cause severe nose, throat, and
respiratory tract irritation.

DOT hazard: Corrosive to steel
Odor: Mild; Appearance: Colorless To Yellow, 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; May cause moderate irritation to the
skin.

ACUTE EYE EFFECTS:

Corrosive to the eyes.

ACUTE RESPIRATORY EFFECTS:

Inhalation of vapor or mist may cause severe nose, throat, and

respiratory tract irritation.

INGESTION EFFECTS:

May cause severe irritation or burning of the gastrointestinal tract.

TARGET ORGANS:

No evidence of potential chronic effects.

MEDICAL CONDITIONS AGGRAVATED:

Not known.

SYMPTOMS OF EXPOSURE:

May cause redness or itching of skin, irritation, and/or tearing of eyes (direct contact).

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%)
2809-21-4	PHOSPHONIC ACID, (1-HYDROXYETHYLIDINE) BIS- (HEDP) Corrosive (eyes)	40-70
13598-36-2	PHOSPHONIC ACID; PHOSPHOROUS ACID Corrosive (eyes and skin)	1-5

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:

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 and phosphorus

FLASH POINT:

> 200F > 93C SETA(CC)

MISCELLANEOUS:

Corrosive to steel

UN 3265;Emergency Response Guide #153

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. Corrosive(Eyes). Do not mix with alkaline material.

STORAGE:

Keep containers closed when not in use. Do not freeze. If frozen, thaw and mix completely prior to use. Store away from bases. Do not store in steel or aluminum containers.

8 Exposure controls / personal protection

EXPOSURE LIMITS

CHEMICAL NAME

PHOSPHONIC ACID, (1-HYDROXYETHYLIDINE)BIS- (HEDP)

PEL (OSHA): NOT DETERMINED

TLV (ACGIH): NOT DETERMINED

PHOSPHONIC ACID; PHOSPHOROUS ACID

PEL (OSHA): NOT DETERMINED

TLV (ACGIH): NOT DETERMINED

ENGINEERING CONTROLS:

adequate ventilation

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:

rubber, butyl 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)	1.453	Vapor Pressure (mmHG)	~ 18.0
Freeze Point (F)	< -30	Vapor Density (air=1)	< 1.00
Freeze Point (C)	< -34		
Viscosity(cps 70F,21C)	85	% Solubility (water)	100.0

Odor	Mild
Appearance	Colorless To Yellow
Physical State	Liquid
Flash Point	SETA(CC) > 200F > 93C
pH As Is (approx.)	< 1.0
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 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:	2,000 mg/kg
NOTE - RAT LD50:	2,400 mg/kg per alternate source
Dermal LD50 RABBIT:	>7,940 mg/kg
NOTE - RABBIT LD50:	10,000 MG/KG ALTERNATE SOURCE
Skin Irritation Score RABBIT:	0
Eye Irritation Score RABBIT:	CORROSIVE
90 Day Feed Study RAT:	NOEL:10,000 ppm
NOTE - Hemopoietic effects at	30,000 ppm
90 Day Feed Study DOG:	.062-1%
NOTE - 2 year-feed study. Reversible anemia developed at	1% in diet.
90 Day Feed Study DOG:	20-60 mg/kg
NOTE - 30-day study. No pathological effects.	

Ames Assay BACTERIA: NEGATIVE
NOTE - +/- metabolic activation
Non-Ames Mutagenicity : NEGATIVE
NOTE - Mouse Lymphoma Assay +/- metabolic activation

12 Ecological information

AQUATIC TOXICOLOGY

Bluegill Sunfish 96 Hour Static Acute Bioassay
LC50= 1440; No Effect Level= 880 mg/L
Ceriodaphnia 48 Hour Static Renewal Bioassay (pH adjusted)
No Effect Level= 31.3; LC50= 113 mg/L
Daphnia magna 48 Hour Static Renewal Bioassay (pH adjusted)
LC50= 755; No Effect Level= 420 mg/L
Fathead Minnow 96 Hour Static Renewal Bioassay (pH adjusted)
LC50= 3040; No Effect Level= 1370 mg/L
Grass Shrimp (Palaemonetes pugio) 96 Hour Static Acute Bioassay
LC50= 2675 mg/L
Midge larvae (Chironomus tentans) 48 Hour Static Acute Bioassay
LC50= 14850 mg/L
Mysid Shrimp 48 Hour Static Renewal Bioassay (pH adjusted)
LC50= 319 mg/L
Rainbow Trout 96 Hour Static Acute Bioassay
LC50= 610; No Effect Level= 250 mg/L
Selenastrum (algae) 14 Day Growth Inhibition
EC50= 39 mg/L
Selenastrum (algae) 96 Hour Growth Inhibition
EC50= 3 mg/L
Sheepshead Minnow 96 Hour Static Acute Bioassay
LC50= 3630; No Effect Level= 170 mg/L

BIODEGRADATION

BOD-28 (mg/g): 1
BOD-5 (mg/g): 1
COD (mg/g): 300
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(pH, 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.(ORGANIC PHOSPHONIC ACID)
8, UN 3265, 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.(CONTAINS ORGANIC PHOSPHONIC ACID)
 8, UN 3265, PG III
 IMDG: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(ORGANIC PHOSPHONIC ACID)
 8, UN 3265, 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: Not Registered

SARA SECTION 312 HAZARD CLASS:

Immediate(acute)

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	3	Serious Hazard
Fire	1	Slight Hazard
Reactivity	0	Minimal Hazard
Special	CORR	DOT corrosive
(1) Protective Equipment	C	Goggles,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:	28-JAN-1997		** NEW **
	23-JUN-1997		28-JAN-1997
	03-MAY-2000	12	23-JUN-1997
	27-SEP-2000	4,11	03-MAY-2000
	30-MAY-2001	2,8,11	27-SEP-2000
	31-MAY-2001	15	30-MAY-2001
	02-AUG-2001	12	31-MAY-2001
	23-AUG-2001	4,12	02-AUG-2001

09-JUL-2002 12
19-DEC-2006 2, 5, 7, 10
15-MAR-2007 8
10-DEC-2007 4, 8
28-SEP-2009 4, 8
14-JUL-2010 4, 7, 10, 14

23-AUG-2001
09-JUL-2002
19-DEC-2006
15-MAR-2007
10-DEC-2007
28-SEP-2009