



# Material Safety Data Sheet

Issue Date: 03-OCT-2012  
Supercedes: 19-JAN-2012

METCLEAR MR2405

## 1 Identification

**Identification of substance or preparation**  
METCLEAR MR2405

**Product Application Area**  
Waste treatment additive.

**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: 03-OCT-2012

## 2 Hazard(s) identification

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**EMERGENCY OVERVIEW**

**CAUTION**

May cause moderate irritation to the skin. May cause moderate irritation to the eyes. Mists/aerosols may cause irritation to upper respiratory tract.

DOT hazard: Corrosive to aluminum  
Odor: Strong; Appearance: Orange, 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.

**ACUTE EYE EFFECTS:**

May cause moderate irritation to the eyes.

**ACUTE RESPIRATORY EFFECTS:**

Mists/aerosols may cause irritation to upper respiratory tract.

**INGESTION EFFECTS:**

May cause gastrointestinal irritation.

**TARGET ORGANS:**

No evidence of potential chronic effects.

**MEDICAL CONDITIONS AGGRAVATED:**

Not known.

**SYMPTOMS OF EXPOSURE:**

May cause redness or itching of skin.

### 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:**

This product is not hazardous as defined by OSHA regulations.

No component is considered to be a carcinogen by the National Toxicology Program, the International Agency for Research on Cancer, or the Occupational Safety and Health Administration at Pennsylvania thresholds for carcinogens.

**NON-HAZARDOUS INGREDIENTS:**

CAS#	CHEMICAL NAME
7732-18-5	WATER
189326-02-1	AZIRIDINE, HOMOPOLYMER, REACTION PRODUCTS WITH CARBON DISULFIDE, SODIUM SALTS

### 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:**

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:**

oxides of carbon, nitrogen and sulfur

**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. 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 - Incinerate or land dispose in an approved landfill.

## 7 Handling and storage

**HANDLING:**

Alkaline. Do not mix with acidic material. Contact with acids or as the product ages, pH may drop resulting in generation of hydrogen sulfide or carbon disulfide.

**STORAGE:**

Keep containers closed when not in use. Store away from acids. Keep away from flames or sparks. Store between 40-90F (5-32C). Avoid atmospheric exposure. Avoid exposure to direct sunlight and moisture contamination. Shelf life 270 days. Do not store in aluminum containers.

## 8 Exposure controls / personal protection

**EXPOSURE LIMITS**

This product is not hazardous as defined by OSHA regulations.

**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:**

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)	1.140	Vapor Pressure (mmHG)	~ 18.0
Freeze Point (F)	25	Vapor Density (air=1)	< 1.00
Freeze Point (C)	-4		
Viscosity (cps 70F, 21C)	40	% Solubility (water)	100.0
Odor		Strong	
Appearance		Orange	
Physical State		Liquid	
Flash Point	P-M(CC)	> 200F	> 93C
pH As Is (approx.)		12.3	
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. Contact with water reactive compounds may cause fire or  
explosion.

**INCOMPATIBILITIES:**

May react with strong oxidizers.

**DECOMPOSITION PRODUCTS:**

oxides of carbon, nitrogen and sulfur

## 11 Toxicological information

Oral LD50 RAT:	>5000 mg/kg
NOTE - Calculated value according to GHS additivity formula	
Dermal LD50 RABBIT:	>5000 mg/kg
NOTE - Calculated value according to GHS additivity formula	
Eye Irritation Score RABBIT:	15.33
NOTE - Maximum exposure at 1 hr.; completely reversible by day 3	

## 12 Ecological information

#### **AQUATIC TOXICOLOGY**

Ceriodaphnia 48 Hour Static Renewal Bioassay  
LC50= 92.5; No Effect Level= 50 mg/L  
Ceriodaphnia 7 Day Chronic Bioassay  
Reproduction NOEL= 2.5; Reproduction LOEC= 5 mg/L  
Daphnia magna 48 Hour Static Acute Bioassay (pH adjusted)  
LC50= 240; No Effect Level= 62 mg/L  
Fathead Minnow 7 Day Chronic Bioassay  
Growth NOEL= 20; Growth LOEL= 40 mg/L  
Fathead Minnow 96 Hour Static Acute Bioassay (pH adjusted)  
LC50= 195; No Effect Level= 62.5 mg/L  
Rainbow Trout 96 Hour Static Renewal Bioassay  
LC50= 8; 0% Mortality= 3.1 mg/L

#### **BIODEGRADATION**

BOD-28 (mg/g): 55  
BOD-5 (mg/g): 12  
COD (mg/g): 370  
TOC (mg/g): 60

### **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: Corrosive to aluminum  
DOT: SODIUM HYDROXIDE SOLUTION  
8, UN1824, PG III  
DOT EMERGENCY RESPONSE GUIDE #: 154  
Note: Some containers may be DOT exempt, please check BOL for exact container classification  
IATA: SODIUM HYDROXIDE SOLUTION  
8, UN1824, PG III  
IMDG: SODIUM HYDROXIDE SOLUTION  
8, UN1824, 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

#### **FOOD AND DRUG ADMINISTRATION:**

No FDA approval for paper or paperboard having food contact.

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

Registration number: Not Registered

#### **SARA SECTION 312 HAZARD CLASS:**

Product is non-hazardous under Section 311/312

**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	ALK	pH above 12.0
(1) Protective Equipment	B	Goggles,Gloves

(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 **
06-FEB-1998	2, 3, 7, 8, 10, 16	01-DEC-1997
26-FEB-1998	12	06-FEB-1998
18-AUG-2000	4, 16	26-FEB-1998
13-SEP-2001	15	18-AUG-2000
29-MAR-2002	12	13-SEP-2001
08-JUL-2002	12	29-MAR-2002
13-AUG-2002	2, 8	08-JUL-2002
19-NOV-2002	10	13-AUG-2002
24-APR-2006	6, 7	19-NOV-2002
24-MAR-2008		24-APR-2006
02-APR-2009	4, 5, 8, 10, 16	24-MAR-2008
22-MAR-2011	3	02-APR-2009
10-MAY-2011	7, 10	22-MAR-2011
20-AUG-2011	11	10-MAY-2011
19-JAN-2012	3	20-AUG-2011
03-OCT-2012	14, 16	19-JAN-2012