



Material Safety Data Sheet

Issue Date: 11-MAR-2011
Supersedes: 12-MAR-2009

CORTROL OS7780

1 Identification

Identification of substance or preparation
CORTROL OS7780

Product Application Area
Water based dissolved oxygen scavenger/metal passivator.

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: 11-MAR-2011

2 Hazard(s) identification

EMERGENCY OVERVIEW

WARNING

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

DOT hazard is not applicable
Odor: Slight; Appearance: Colorless To Brown, 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 slight irritation to the skin. Skin sensitizer.

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. Very large doses may cause diarrhea, depression, colic and death. May also cause severe allergic reactions in sensitive individuals.

TARGET ORGANS:

Prolonged or repeated exposures may cause primary irritant dermatitis, skin sensitization, impaired vision, and/or toxicity to the blood.

MEDICAL CONDITIONS AGGRAVATED:

Not known.

SYMPTOMS OF EXPOSURE:

Prolonged, repeated exposure may result in brownish discoloration of the conjunctiva and changes in the cornea which may lead to decreased visual acuity.

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%)
123-31-9	HYDROQUINONE (1,4-BENZENEDIOL) Toxic (by ingestion); irritant (eyes); potential sensitizer (skin); IARC=3 (carcinogen status not classifiable)	1-5

NON-HAZARDOUS INGREDIENTS:

CAS#	CHEMICAL NAME
7732-18-5	WATER

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:

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.

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

FLASH POINT:

> 200F > 93C SETA(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. 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:

Normal chemical handling.

STORAGE:

Keep containers closed when not in use. Store with minimum exposure to light. Shelf life 270 days. Protect from freezing. If frozen, thaw completely and mix thoroughly prior to use.

8 Exposure controls / personal protection

EXPOSURE LIMITS

CHEMICAL NAME

HYDROQUINONE (1,4-BENZENEDIOL)

PEL (OSHA): 2 MG/M3

TLV (ACGIH): 2 MG/M3

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 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)	1.002	Vapor Pressure (mmHG)	18.0
Freeze Point (F)	32	Vapor Density (air=1)	> 1.00
Freeze Point (C)	0		
Viscosity (cps 70F, 21C)	7	% Solubility (water)	100.0
Odor		Slight	
Appearance		Colorless To Brown	
Physical State		Liquid	
Flash Point	SETA(CC)	> 200F > 93C	
pH As Is (approx.)		7.5	
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 water reactive compounds may cause fire or explosion.

INCOMPATIBILITIES:

May react with strong oxidizers.

DECOMPOSITION PRODUCTS:

oxides of carbon

11 Toxicological information

Oral LD50 RAT:	>5,000 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
LC50= 8.7; No Effect Level= 4.9 mg/L
Fathead Minnow 96 Hour Static Renewal Bioassay
LC50= 8.2; No Effect Level= 3.1 mg/L

Rainbow Trout 96 Hour Static Acute Bioassay
LC50= 6.3; No Effect Level= 3.7 mg/L

BIODEGRADATION

BOD-28 (mg/g): 27
BOD-5 (mg/g): 27
COD (mg/g): 52
TOC (mg/g): 16

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: Not Applicable

DOT: ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID,
N.O.S.(HYDROQUINONE)
9, NA 3082, PG III, RQ

DOT EMERGENCY RESPONSE GUIDE #: 171

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

IATA: Not Regulated

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID,
N.O.S.(HYDROQUINONE)
9, NA 3082, PG III, RQ

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):

479 gallons due to HYDROQUINONE (1,4-BENZENEDIOL);

FOOD AND DRUG ADMINISTRATION:

All ingredients in this product are authorized in 21 CFR176.170 for use in boilers where the steam will be used for manufacturing paper or paperboard.

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

Registration number: Not Registered
G7

SARA SECTION 312 HAZARD CLASS:

Immediate(acute);Delayed(Chronic)

SARA SECTION 302 CHEMICALS:

CAS#	CHEMICAL NAME
123-31-9	HYDROQUINONE (1,4-BENZENEDIOL)

SARA SECTION 313 CHEMICALS:

CAS#	CHEMICAL NAME	RANGE
123-31-9	HYDROQUINONE (1,4-BENZENEDIOL)	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.

MICHIGAN REGULATORY INFORMATION

CAS#	CHEMICAL NAME
123-31-9	HYDROQUINONE (1,4-BENZENEDIOL)

16 Other information

HMIS vII

CODE TRANSLATION

Health	1	Slight Hazard
Fire	0	Minimal Hazard
Reactivity	0	Minimal Hazard
Special	NONE	No special Hazard
(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:	21-JUL-1997		** NEW **
	28-SEP-1999	2	21-JUL-1997
	02-AUG-2006	4, 7, 16	28-SEP-1999
	20-OCT-2008	3, 5, 14	02-AUG-2006
	12-MAR-2009	14	20-OCT-2008
	11-MAR-2011	4, 5, 7, 8, 10, 15	12-MAR-2009