

Exelon Nuclear
Peach Bottom Atomic Power Station
1848 Lay Road
Delta, PA 17314-9032

Telephone 717.456.7014
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February 28, 2006

Marybeth Luttenberger
Pennsylvania Department of Environmental Protection
Office of Water Management
909 Elmerton Avenue
Harrisburg, PA 17110

Reference: Peach Bottom Atomic Power Station
NPDES Permit PA0009733

Dear Ms. Luttenberger,

Per our telephone conversation on February 18, 2006, Peach Bottom is requesting permission to inject, on a trial basis, 10 milliliters of Copper-trol CU-1 into the service water corrosion monitoring skid. Copper-trol CU-1 is a yellow metal corrosion inhibitor. This injection will occur over a fifteen minute duration. The purpose is to determine if this chemical slows corrosion rates on the yellow metal components that are installed in the service water systems.

The expected concentration at NPDES Outfall 001 will be less than one part per trillion. This is based on dilution by four circulating water pumps that have a pumping rate of 225,000 gallons per minute each.

Attached is the MSDS for Copper-trol CU-1. Section 12 of the MSDS contains the LC50 information for aquatic toxicology. Per our telephone conversation, this request is approved pending any comments from your Department.

If this trial indicates this additive will be effective in controlling corrosion rates, a request to your Department will be made to add this product on a permanent basis at a prescribed frequency.

We appreciate your cooperation with this matter. If you have any further questions, please feel free to contact Mr. Daniel Jordan, Environmental Specialist (717) 456-4551.

Sincerely,



Joseph P. Grimes, Plant Manager
Peach Bottom Atomic Power Station

cc: USNRC Region I
NRC Document Control Desk
Alfred H. Ryan
Kennett Square Environmental Affairs
Regulatory Affairs
Daniel Jordan
NRC Resident Inspector, PBAPS

ccn 06-14011

COO1



GE Betz

GE Betz, Inc.
4636 Somerton Road
Trevose, PA 19053
Business telephone: (215) 355-3300

Material Safety Data Sheet

Issue Date: 08-JUN-2005

EMERGENCY TELEPHONE (Health/Accident): (800) 877-1940

1 PRODUCT IDENTIFICATION

PRODUCT NAME:

COPPER-TROL CU-1

PRODUCT APPLICATION AREA:

WATER-BASED CORROSION INHIBITOR.

2 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
1310-73-2	SODIUM HYDROXIDE (CAUSTIC SODA) Corrosive; toxic (by ingestion)
118685-34-0	BUTYL BENZOTRIAZOLE, SODIUM SALT Corrosive (eyes and skin); sensitizer (skin)

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 OSHA thresholds for carcinogens.

3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER

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

DOT hazard: Corrosive to skin
Emergency Response Guide #154

Odor: Mild; Appearance: Dark 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; Corrosive to skin. Skin sensitizer.

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 tissue necrosis, primary irritant dermatitis, and/or skin sensitization.

MEDICAL CONDITIONS AGGRAVATED:

Not known.

SYMPTOMS OF EXPOSURE:

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

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. Dilute contents of stomach using 3-4 glasses 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:

Thermal decomposition (destructive fires) yields elemental oxides.

FLASH POINT:

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

MISCELLANEOUS:

Corrosive to skin

UN1824;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 & 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

CHEMICAL NAME	EXPOSURE LIMITS
SODIUM HYDROXIDE (CAUSTIC SODA)	
PEL (OSHA): 2 MG/M3	
TLV (ACGIH): 2 MG/M3 (CEILING)	
BUTYL BENZOTRIAZOLE, SODIUM SALT	
PEL (OSHA): NOT DETERMINED	
TLV (ACGIH): NOT DETERMINED	

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 a respirator with dust/mist filters.

SKIN PROTECTION:

gauntlet-type rubber gloves, chemical resistant apron-- Wash off after each use. Replace as necessary.

EYE PROTECTION:

splash proof chemical goggles, face shield

9 PHYSICAL & CHEMICAL PROPERTIES

Specific Grav. (70F, 21C)	1.184	Vapor Pressure (mmHG)	- 22.0
Freeze Point (F)	-4	Vapor Density (air=1)	< 1.00
Freeze Point (C)	-20		
Viscosity(cps 70F, 21C)	37	% Solubility (water)	100.0
Odor		Mild	
Appearance		Dark Brown	
Physical State		Liquid	
Flash Point	P-M(CC)	> 200F > 93C	
pH As Is (approx.)		13.5	
Evaporation Rate (Ether=1)		< 1.00	

NA = not applicable ND = not determined

10 STABILITY & REACTIVITY

STABILITY:

Stable under normal storage conditions.

HAZARDOUS POLYMERIZATION:

Will not occur.

INCOMPATIBILITIES:

May react with acids.

DECOMPOSITION PRODUCTS:

Thermal decomposition (destructive fires) yields elemental oxides.

INTERNAL PUMPOUT/CLEANOUT CATEGORIES:

"C"

11 TOXICOLOGICAL INFORMATION

Oral LD50 RAT: 945 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 Acute Bioassay (pH adjusted)

LC50= 66; No Effect Level= 28 mg/L

Fathead Minnow 96 Hour Static Acute Bioassay (pH adjusted)

LC50= 39.4; No Effect Level= 28 mg/L

Menidia beryllina (Silversides) 96 Hour Static Acute Bioassay

LC50= 20.5; 5% Mortality= 6.25 mg/L

Mysid Shrimp 96 Hour Static Acute Bioassay

LC50= 17.2; No Effect Level= 6.25 mg/L

Rainbow Trout 96 Hour Static Acute Bioassay

LC50= 28.1; No Effect Level= 21 mg/L

BIODEGRADATION

BOD-28 (mg/g): 7
BOD-5 (mg/g): 7
COD (mg/g): 271
TOC (mg/g): 67

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
UN / NA NUMBER: UN1824
DOT EMERGENCY RESPONSE GUIDE #: 154

15 REGULATORY INFORMATION

TSCA:

All components of this product are listed in the TSCA inventory.

CERCLA AND/OR SARA REPORTABLE QUANTITY (RQ):

741 gallons due to SODIUM HYDROXIDE (CAUSTIC SODA);

SARA SECTION 312 HAZARD CLASS:

Immediate(acute);Delayed(Chronic)

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) CHEMICALS PRESENT:

No regulated constituents present

MICHIGAN REGULATORY INFORMATION

No regulated constituent present at OSHA thresholds

16 OTHER INFORMATION

NFPA/HMIS		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:	22-AUG-1995	REVISED FORMAT	** NEW **
	09-SEP-1996	12	22-AUG-1995
	04-APR-1997	12	09-SEP-1996
	22-AUG-2001	15	04-APR-1997
	08-JUN-2005	4	22-AUG-2001