

COMMUNICATIONS AND POWER INDUSTRIES INC -- BL387 -- 1270-00-980-0565

===== Product Identification =====

Product ID:BL387

MSDS Date:06/24/1999

FSC:1270

NIIN:00-980-0565

Status Code:A

Article:Y

MSDS Number: CJGSW

=== Responsible Party ===

Company Name:COMMUNICATIONS AND POWER INDUSTRIES INC

Address:150 SOHIER RD

City:BEVERLY

State:MA

ZIP:01915-5595

Country:US

Info Phone Num:978-922-6000 EXT.285

Em

ergency Phone Num:617-272-3000

Preparer's Name:DSCR-HMIS

CAGE:88236

=== Contractor Identification ===

Company Name:COMMUNICATIONS AND POWER INDUSTRIES INC

Address:150 SOHIER RD

City:BEVERLY

State:MA

ZIP:01915-5595

Country:US

Phone:978-922-6000 EXT.285

Contract Num:N00383-81-C-5420

CAGE:88236

===== Composition/Information on Ingredients =====

Ingred Name:COBALT-60

CAS:10198-40-0

===== Hazards Identification =====

Routes of Entry: Inhalation

:YES Skin:NO Ingestion:YES

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:INHALATION: CO60 DUST RESULTING FROM A LEAKING ENCAPSULATED SOURCE REMAINS IN THE LUNGS. THE BIOLOGICAL HALF LIVES IS 10 DAYS. INGESTION: CO60 DUST CAN ENTER THE BODY ORALLY, THROUGH OPEN CUTS ETC. EYES: EXPOSURE TO GAMMA/BETA RADIATION MAY AFFECT SIGHT. SKIN: CAUSE REACTIONS AND IN THE EXTREME, DEATH.

Effects of Overexposure:OVEREXPOSURE TO RADIATION FROM A SEALED SOURCE

REQUIRES MEDICAL ATTENTION FOR EXTERNAL RADIATION. SKIN: CAUSE REACTIONS & IN THE EXTREME, DEATH. INHALATION: CO60 DUST RESULTING FROM A LEAKING ENCAPSULATED SOURCE REMAINS IN THE LUNGS. INGESTION: CO60 DUST CAN ENTER THE BODY ORALLY, THROUGH OPEN CUTS ETC.

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===== First Aid Measures =====

First Aid:INHALATION: LEAVE THE CONTAMINATION AREA & SEEK MEDICAL ATTENTION FOR CO60 INTAKE. SKIN: (IFOR SKIN WITH ABRASIONS) DECO

NTAMINATION OF WOUNDS SHOULD BE ACCOMPANIED UNDER THE SUPERVISION OF A PHYSICIAN . IRRIGATE ANY WOUNDS PROFUSELY WITH TEPID WATER, AND CLEAN WITH A SWAB. FOLLOW WITH SOAP AND WATER OR DETERGENT AND WATER (AND GENTLE SCRUBBING WITH A SOFT BRUSH, IF NEEDED). AVOID THE USE OF HIGHLY ALKALINE SOAPS OR ORGANIC SOLVENTS.

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===== Accidental Release Measures =====

Spill Release Procedures:DON'T TOUCH SPILLED MATERIAL (OR SOURCES) OR DAMAGE CONTAINER.

ISOLATE SPILL AREA. DON'T ENTER SPILL AREA UNLESS IT IS ABSOLUTELY NECESSARY TO SAVE LIVES. LIMIT ENTRY TO THE SHORTEST TIME.

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===== Handling and Storage =====

Handling and Storage Precautions:SOURCES MUST BE PROPERLY LABELED AND AREA SIGNS POSTED. THE RADIATION PROTECTION OFFICER MUST BE KEPT INFORMED OF ANY TRANSFER OF A SOURCE TO NEW STORAGE OR USE AREAS. DURING STORAGE THERE MUST BE NO POSSIBILITY OF A CHEMICAL REACTION THAT MIGHT

CAUSE AN EXPLOSION.

Other Precautions:RADIOACTIVE WASTE MAY BE STORED ONLY IN RESTRICTED AREAS. LIQUID WASTE SHOULD BE STORED IN SHATTERPROOF CONTAINERS, SUCH AS POLYETHYLENE BOTTLES. IF CIRCUMSTANCES MAKE THIS IMPOSSIBLE, AN OTHER CONTAINER OF SHATTERPROOF MATERIAL MUST BE USED.

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===== Exposure Controls/Personal Protection =====

Respiratory Protection:CO60 SOURCES ARE NORMALLY SEALED & THE MAIN HAZARD IS PENETRATING GAMMA RADIATION WHICH REQUIRES SUBSTANTIAL SHIELDING.

Protective Gloves:SUITABLE GLOVES MUST BE WORN WHENEVER HAND CONTAMINATION IS LIKELY.

Other Protective Equipment:IN ADDITION TO GLOVES, OTHER PROTECTIVE CLOTHING, SUCH AS COVERALLS, LABORATORY COATS, AND SHOES, SHOULD BE WORN WHENEVER CONTAMINATION OF CLOTHING WITH RADIOACTIVE MATERIALS IS POSSIBLE.

Work Hygienic Practices:PERSONNEL WORKING IN AREAS CONTAINING UNSEALED SOURCES OF RADIOACTIVITY MUST "WASH UP" BEFORE EATING, SMOKING OR LEAVING WORK AND MUST USE AN APPROPRIATE DETECTION INSTRUMENT TO MONITOR HANDS, CLOTHING.

Supplemental Safety and Health  
EXTRA CARE SHOULD BE EXERCISED TO PREVENT CONTAMINATION OF SKIN AREAS WHERE THERE IS A BREAK IN THE SKIN.

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===== Physical/Chemical Properties =====

HCC:A2

Boiling Pt:=2870.C, 5198.F

Melt/Freeze Pt:=1495.C, #####F

Spec Gravity:8.9

Solubility in Water:INSOLUBLE

Appearance and Odor:A SEALED SOURCE.

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===== Stability and Reactivity Data =====

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Stability Indicator/Materials to Avoid:YES

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===== Disposal Considerations =====

Waste Disposal Methods:SHORT-LIVED RADIONUCLIDES ARE OFTEN STORED/ALLOWED TO DECAY UNTIL IT CAN BE DISPOSED OF AS NONRADIOACTIVE WASTE. THE NRC REQUIRES A MINIMUM DECAY TIME OF 10 HALF-LIVES. THIS PERIOD REDUCES THE ACTIVITY TO LESS THAN 0.1% OF THE ORIGINAL VALUE. DISPOSE OF I/A/W FEDERAL, STATE & LOCAL LAWS.

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===== MSDS Transport Information =====

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Transport Information:EXCEPTED PACKAGES MUST BE CERTIFIED INCLUDING  
CONSIGNOR/CONSIGNEE NAME AND A STATEMENT SUCH AS: THIS PACKAGE  
CONFORMS TO CONDITIONS & LIMITATIONS SPECIFIED IN 49 CFR 173.421  
FOR RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF  
MATERIAL, UN2910.

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