

COMMUNICATIONS AND POWER INDUSTRIES INC -- 6163 -- 5960-00-060-6604

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

Product ID:6163  
MSDS Date:12/23/1998  
FSC:5960  
NIIN:00-060-6604  
Status Code:A  
Article:Y  
MSDS Number: CJKMP  
=== 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  
Emer  
gency Phone Num:978-922-6000  
Preparer's Name:FRANK E. TROJAN  
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:SP0960-99-Q-1007  
CAGE:88236

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

Ingred Name:COBALT-60  
CAS:10198-40-0

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

Routes of Entry: Inhala

tion:YES Skin:YES Ingestion:NO

Health Hazards Acute and Chronic:TARGET ORGANS: RESPIRATORY SYSTEM, SKIN, BLADDER, KIDNEYS, & EYES. ACUTE- SKIN: MAY RESULT IN BURNS. CONTACT DERMATITIS. RAPID ESTIMATION OF THE AMOUNT OF INTERNAL CONTAMINATION IS DIFFICULT OR IMPOS SIBLE WHEN ALPHA OR PURE BETA EMITTERS ARE INVOLVED. INHALATION: BREATHING DIFFICULTIES. CHRONIC- ALLERGIC ASTHMA, RESTRICTED PULMONARY FUNCTIONS, AND INTERNAL FIBROSIS MAY BE CAUSED BY LONG-TERM OC CUPATION

AL EXPOSURE

TO COBALT AND ITS COMPOUNDS.

Explanation of Carcinogenicity:CANCER CAUSING AGENT: BETA OR GAMMA RAYS

Effects of Overexposure:NAUSEA & VOMITING & DIARRHEA FOR HIGH ACUTE DOSES. INHALATION OF COBALT DUST CAN CAUSE PULMONARY SYMPTOMS SUCH AS WHEEZING, IRRITATION OF THE UPPER RESPIRATORY TRACT & HYPERSENSITIVITY REACTIONS (AST HMA). SKIN CONTACT W/ POWDERED COBALT MAY CAUSE ADENITIDES, ESPECIALLY IN THE CREASES OF THE ELBOWS, KNEES, ANKLES, & NECK. CONTACT

WITH EYES MAY CAUSE

CONJUNCTIVITIS. INGESTION MAY PRODUCE A HOT SE NSATION ALONG WITH VOMITING, DIARRHEA, & NAUSEA.

Medical Cond Aggravated by Exposure:HEALING OF DAMAGED TISSUES MAY BE PROLONGED. DISORDERS OF THE SKIN & THE UPPER RESPIRATORY TRACT MAY BE WORSENER BY EXPOSURE TO COBALT.

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

First Aid:EYES: IMMEDIATELY FLUSH EYES, INCLUDING UNDER THE EYELIDS, GENTLY BUT THOROUGHLY WITH PLENTY OF RUNNING WATER FOR AT LEAST 15

MIN. SKIN: IMMEDIATELY WASH THE AFFECTED AREA WITH SOAP AND WATER.

INHALATION: REMOVE THE EXPOSED PERSON TO FRESH AIR, RESTORE AND/OR SUPPORT HIS OR HER BREATHING AS NEEDED. INGESTION: NEVER GIVE ANYTHING BY MOUTH TO SOMEONE WHO IS UNCONSCIOUS OR CONVULSING. IF COBALT SA LTS ARE INGESTED, GIVE ONE TO TWO GLASSES OF WATER & INDUCE VOMITING. TRANSPORTTO A HOSPITAL IF NAUSEA & VOMITING OCCUR IN THE FIRST 24 HOURS.

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===== Accidental Relea  
se Measures =====

Spill Release Procedures:WHEN HANDLING BROKEN TUBES WEAR PROTECTIVE RUBBER GLOVES & CLOTHING. AVOID THE POSSIBILITY OF RUBBING RADIOACTIVE MATERIAL ONTO THE SKIN. WASH EXPOSED SKIN AFTER HANDLING BROKEN TUBES CONTAINING RADIO ACTIVE MATERIALS.

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

Handling and Storage Precautions:ELECTRON TUBES SHOULD BE STORED IN A CLEAN DRY ENVIRONMENT SUITABLE FOR ELECTRONIC EQUIPMENT. TUBES WITH

PERMANENT MAGNETS MAY GENERATE STRAY MAGNETIC FIELDS.

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

Work Hygienic Practices:WASH HANDS.

Supplemental Safety and Health

THIS DEVICE IS A RECEIVER PROTECTOR TUBE WHICH CONTAINS A SMALL AMOUNT OF COBALT 60. THE TUBE IS CONSIDERED TO BE A SEALED SOURCE & NORMAL HANDLING WILL PRESENT NO RADIATION PROBLEMS. THIS DEVICE IS A MANUFACTURED ARTICLE IN ACCORDANCE WITH 49 CFR 173.422. THIS DEVICE IS AN ARTICLE IN ACCORDANCE WITH 29 CFR 1910.1200.

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

HCC:A3

Boiling Pt:2900.C, 5252.F

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

Vapor Pres: