

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

Product ID:VMX1611

MSDS Date:09/14/1998

FSC:5960

NIIN:01-065-5332

Status Code:A

MSDS Number: CJDNK

=== 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

Emergency Phone Num:978-922-6000

Preparer's Name:FRANK E. TROJAN

CAGE:88236

=== Co

ntractor 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:N00104-96-G-A411

CAGE:88236

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

Ingred Name:BERYLLIUM

CAS:7440-41-7

RTECS #:DS1750000

OSHA PEL:see Table Z-2

ACGIH TLV:0.002 MG/M3

Ingred Name:BERYLLIUM OXIDE

CAS:1304-56-9

RTECS #:DS4025000

Ingred Name:MAGNETIZED MATERIAL

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

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

Health Hazards Acute and Chronic:NORMAL OPERATING VOLTAGES CAN BE DEADLY. EXPOSURE TO RF RADIATION MAY CAUSE SERIOUS BODILY INJURY POSSIBLY RESULTING IN BLINDNESS OR DEATH. RF RADIATION MAY AFFECT CARDIAC PACEMAKERS. HIGH VOLTAGE TUBES CAN PRODUCE DANGEROUS, POSSIBLY FATAL, X-RAYS. BROKEN OR DISASSEMBLED RECEIVE

R PROTECTOR

TUBES MAY EMIT IONIZING RADIATION. EXPOSURE TO ULTRAVIOLET RADIATION CAN CAUSE PAINFUL SKIN BURNS AND SERIOUS EYE DAMAGE OR IRRITATION. DUST OR FUMES FROM BERYLLIUM AND BERYLLIUM OXIDE IS HIGHLY TOXIC. BREAKDOWN OF DIELECTRIC GAS MAY CREATE TOXIC OR CORROSIVE COMPOUNDS.

Explanation of Carcinogenicity:BERYLLIUM: IARC MONOGRAPHS, SUPPLEMENT, VOL 7, PG 127, 1987: GROUP 1. NTP 7TH ANNUAL REPORT ON CARCINOGENS, 1994: ANTICIPATED TO BE CARCINOGEN.

Effects of Over

exposure:SEE HEALTH HAZARDS.

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

First Aid:INGEST: CALL MD IMMEDIATELY . INHAL: REMOVE TO FRESH AIR. SUPPORT BREATHING (GIVE OXYGEN/ARTIFICIAL RESPIRATION) . EYES: IMMEDIATELY FLUSH EYES W/POTABLE WATER FOR AT LEAST 15 MINUTES. SEEK ASSISTANCE FROM MD . SKIN: FLUSH W/COPIOUS AMOUNTS OF WATER. CALL MD .

===== Fire Fighting Measures =====

Extinguishing Media:NOT APPLICABLE. MEDIA SUITABLE FOR SURROUNDING FIRE .

Fire Fighting Procedures:USE NIOSH APPROVED SCBA AND FULL PROTECTIVE EQUIPMENT .

Unusual Fire/Explosion Hazard:NOT APPLICABLE.

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

Spill Release Procedures:NOT APPLICABLE.

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

Handling and Storage Precautions:DEVICE IS ELECTRON TUBE WHICH CONTAINS PERMANENT MAGNETIC FIELD WHICH DOES NOT EXCEED LIMITS SPECIFIED IN 49

CFR 173.21(D). PROPER USE AND SAFE OPERATING PRACTICES W/RESPECT TO MICROWAVE TUBES/EQUIP ARE RESPONSIBILITY OF EQUIP MFR & USERS OF TUBES/EQUIP.

Other Precautions:WARNING. SERIOUS HAZS EXIST IN OPERATION OF MICROWAVE TUBES/EQUIP. IMPLOSION HAZARD - WINDOWS IN MICROWAVE TUBES CAN SHATTER ON IMPACT OR CRACK IN USE. THIS MAY RESULT IN INJURY FROM FLYING PARTICLES OR FROM BERYLLIUM OXIDE DUST OR FUME. HOT LIQUID - A LIQUID-COOLED TUBE AND THE LIQUID USED TO COOL IT (TOX IN FO)

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

Respiratory Protection:NOT APPLICABLE. USE NIOSH APPROVED RESPIRATOR APPROPRIATE FOR EXPOSURE OF CONCERN .  
Ventilation:NOT APPLICABLE.  
Protective Gloves:IMPERVIOUS GLOVES .  
Eye Protection:ANSI APPROVED CHEMICAL WORKERS GOGGLES .  
Other Protective Equipment:ANSI APPROVED EYE WASH & DELUGE SHOWER .  
Work Hygienic Practices:NOT APPLICABLE.  
Supplemental Safety and Health  
HNDLG/STOR PRECS: INDUSTRIES, INC. BEVERLY MICROWAVE DIVISION PROVIDES INFORMATION ON ITS PRODUCTS AND ASSOCIATED HAZARDS, BUT DOES NOT ASSUME RESPONSIBILITY FOR AFTER-SALE OPERATING AND SAFETY PRACTICES. (FED REGS)

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

Appearance and Odor:NOT APPLICABLE.

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

NONE KNOWN.  
Stability Condition to Avoid:NOT APPLICABLE.  
Hazardous Decomposition Products:NOT APPLICABLE.

===== Toxicological Information =====

Toxicological Information:OTHER INFO: CAN REACH SCALDING TEMPS & CAUSE SERIOUS BURNS. HOT SURFACES - AIR-COOLED SURFACES MAY REACH HIGH TEMPS & CAUSE SERIOUS BURNS.

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

Waste Disposal Methods:NOT APPLICABLE. DISPOSAL MUST BE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS .

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

Transport Information:APPLICABLE REGULAT

IONS: 49 CFR IATA. SHIPPING

NAME: ELECTRON TUBE. IDENTIFICATION NUMBER: UN2807. REPORTABLE  
QUANTITY: NOT APPLICABLE. HAZARD CLASS: CLASS 9. LABELS: YES. UNIT  
CONTAINER: FOAM PACK INS IDE FIBERBOARD BOX. DOT SPECIFICATION  
CONTAINER: NO. NET EXPLOSIVE WEIGHT: NOT APPLICABLE. LIMITED  
QUANTITY: NOT APPLICABLE. AEROSOL PROPELLANT(S): NOT APPLICABLE.  
US POSTAL SERVICE REGULATIONS: MAY BE MAILED. MAGNETISM: DOES NOT  
EXCEED 0.148 A/M (0.00525 GAUSS).

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Other Information =====

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