

VARIAN ASSOCIATE INC;CROSSED FIELD & RECEIVER PROT -- VDX1141 ELECTRON TUBE --
5960-01-044-9439

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

Product ID:VDX1141 ELECTRON TUBE

MSDS Date:02/02/1996

FSC:5960

NIIN:01-044-9439

Status Code:A

MSDS Number: CJLMQ

=== Responsible Party ===

Company Name:VARIAN ASSOCIATE INC;CROSSED FIELD & RECEIVER PROT

Address:150 SOHIER RD

City:BEVERLY

State:MA

ZIP:01915-1018

Country

:US

Info Phone Num:508-922-6000 EXT.285

Emergency Phone Num:508-922-6000 EXT.285

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:SP0960-96-M-3682

CAGE:88236

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

Ingred Name:TRITIUM

Other REC Limits:NONE RECOMMENDED

Ingred Name:NON-HAZARDOUS INGREDIENTS

Fraction by Wt:

BALANCE
Other REC Limits:NONE RECOMMENDED

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

LD50 LC50 Mixture:NOT GIVEN FOR PRODUCT AS A WHOLE
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:SIGNIFICANT EXPOSURE TO A RADIONUCLIDE
MAY CAUSE CANCER.
Explanation of Carcinogenicity:NOT LISTED IN NTP, IARC OR OSHA PER
MANUFACTURER.
Effects of Overexposure:TRITIUM IS A BETA EMIT
TER. IF EXPOSURE IS
SUSPECTED, SEEK MEDICAL ATTENTION, URINE ASSAY FOR TRITIUM IS THE
ONLY MEANS OF MEASURING THE DEGREE OF EXPOSURE.
Medical Cond Aggravated by Exposure:HEALING OF DAMAGED TISSUES MAY BE
PROLONGED.

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

First Aid:EYES: FLUSH WITH WATER FOR 15 MINUTES WHILE HOLDING EYELIDS
OPEN. GET MEDICAL ATTENTION. SKIN: WASH WITH SOAP AND WATER. IF
IRRITATION PERSIST, GET MEDICAL ATTENTION. INHALATION: REMOV
E TO
FRESH AIR. RESTORE BREATHING. GET MEDICAL ATTENTION. INGESTION: A
HIGH ORAL FLUID INTAKE SHOULD BE ADMINISTERED FOLLOWING TRITIUM
EXPOSURE.

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

Flash Point:NONFLAMMABLE
Lower Limits:NOT GIVEN
Upper Limits:NOT GIVEN
Extinguishing Media:NONFLAMMABLE. USE EXTINGUISHING MEDIA SUITABLE FOR
SURROUNDING FIRE.
Fire Fighting Procedures:NONFLAMMABLE. USE STANDARD FIREFIGHTING
PROCEDURES FOR SURROUNDING MATERIALS IN
THE FIRE.
Unusual Fire/Explosion Hazard:NONE SPECIFIED BY MANUFACTURER.

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

Spill Release Procedures:WEAR RADIONUCLIDE CARTRIDGE RESPIRATOR AND
PROPER PERSONAL PROTECTIVE CLOTHING/GLOVES/GOGGLES. COLLECT FOR
DISPOSAL.
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:DO NOT GET IN EYES, ON SKIN, MOUTH OR
CLOTHING. T

HIS DEVICE IS A RECEIVER PROTECTOR TUBE WHICH CONTAINS A
SMALL AMOUNT OF TRITIUM.

Other Precautions:TUBE IS CONSIDERED A SEALED SOURCE AND NORMAL
HANDLING WILL PRESENT NO RADIATION PROBLEMS. THE DEVICE IS A
MANUFACTURED ARTICLE.

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

Respiratory Protection:IF SPILLED, WEAR RADIONUCLIDE CARTRIDGE
RESPIRATOR.

Ventilation:PLACE AFFECTED COMPONENT IN LOCAL EXHAUST.

Protective Gloves:DISPOSABLE GLOVES

Eye Protection:GOGG
LES

Other Protective Equipment:CHEMICAL RESISTANT CLOTHING AS NECESSARY TO
PREVENT SKIN CONTACT. AN EMERGENCY EYEWASH AND SHOWER SHOULD BE
AVAILABLE.

Work Hygienic Practices:WASH HANDS THOROUGHLY WITH SOAP AND WATER
BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES.

Supplemental Safety and Health
NONE SPECIFIED BY MANUFACTURER.

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

HCC:A2

Boiling Pt:B.P. Text:-414F,-248C

Melt/Freeze Pt:M.P/F.P Text:-425F,-25
4C

Vapor Pres:18.317 ATM

Vapor Density:NOT GIVEN

Spec Gravity:6.0

Evaporation Rate & Reference:NOT GIVEN

Solubility in Water:COMPLETE

Appearance and Odor:GAS, NO ODOR

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

Stability Indicator/Materials to Avoid:YES
OXIDIZERS

Stability Condition to Avoid:TEMPERATURES IN EXCESS OF 400C WILL CAUSE
DECOMPOSITION OF TIT2 WITH RELEASE OF TRITIUM GAS.

Hazardous Decomposition Products:UNBOUND TRITIUM

===== Disposal

Considerations =====

Waste Disposal Methods:PREVENT WASTE FROM CONTAMINATING SURROUNDING ENVIRONMENT. DISCARD ANY PRODUCT, RESIDUE, DISPOSAL CONTAINER OR LINER IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

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