NIIN:00-188-0948

MSDS Number: CFKXS === Responsible Party ===

Company Name: PHILIPS LIGHTING CO/DIV OF N. AMERICAN PHILIPS COR

Address:100 WESTINGHOUSE P

LAZA

City:BLOOMFIELD

State:NJ ZIP:07003 Country:US

Info Phone Num:201-563-3000

Emergency Phone Num:201-563-3000

CAGE:77625

=== Contractor Identification ===

Company Name: NATIONAL ELECTRONICS DIV OF RICHARDSON ELECTRONICS

Address:40W267 KESLINGER RD

Box:City:LAFOX

State:IL ZIP:60147 Country:US CAGE:83781

Company Name: PHILIPS LIGHTING CO/DIV OF N. AMERICAN PHILIPS COR

Box:City:HIGHTSTOWN

State:NJ Country:US

Phone:201-563-3000

CAGE:77625

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

======

Ingred Name:TUNGSTEN, AS W, SOLUBLE COMPOUNDS.

CAS:7440-33-7

RTECS #:YO7175000 Fraction by Wt: 96-100%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:NOE ESTABLISHED ACGIH TLV:1 MG/M3/3 STEL; 9596

Ingred Name:THORIUM (NATURAL)

Fraction by Wt: 0-4%

Other REC Limits: NONE RECOMMENDED

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

LD50 LC50 Mixture:TLV FOR TUNGTSEN IS 5MG/M\*3 Routes of Entry: Inhalation:NO Skin:NO Ingestion:NO

Reports of Carcinogenicity:NTP:NO IARC:N

## O OSHA:NO

Health Hazards Acute and Chronic:THIS TUBE CONTAINS EITHER TUNGSTEN OR THORIATED TUNGSTEN.THORIUM IS A NATURALLY OCCURING RADIOACTIVE ELEMENT.NO HEALTH HAZARD IS ASSOCIATED WITH NATURAL THORIUM,HOWEVER LONG TERM EXPOSURE TO TO DUST O R FUMES MAY CAUSE LUNG PROBLEMS.

Explanation of Carcinogenicity: THERE ARE NO INGREDIENTS ABOVE 0.1% WHICH ARE IDENTIFIED AS CARCINOGENS BY NTP, IARC OR OSHA.

Effects of Overexposure: NONE SPECIFIED BY MANUFACTURER.

Medical Cond Aggravated by

Exposure: NONE SPECIFIED BY MANUFACTURER.

First Aid:SKIN:REMOVE CONTAMINATED CLOTHING;WASH WITH SOAP AND WATER.GET MEDICAL ATTENTION IF NEEDED.EYES:FLUSH WITH WATER FOR 15 MINUTES.GET IMMEDIATE MEDICAL ATTENTION.INHAL:REMOVE TO FRESH AIR.GIVE OXYGEN OR ARTIFICIAL RESPIRATION IF NEEDED.GET IMMEDIATE MEDICAL ATTENTION.INGEST:GET PROMPT QUALIFIED MEDICAL ATTENTION.IF CONSCIOUS,INDUCE VOMITING.

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

Flash Point:NONE

Extinguishing Media:USE MEDIA APPROPRIATE FOR SURROUNDING FIRE. Fire Fighting Procedures:HMIS SUGGESTS TO USE A SELF-CONTAINED BREATHING APPARATUS WHENEVER FIGHTING A CHEMICAL FIRE. Unusual Fire/Explosion Hazard:NO UNUSUAL FIRE HAZARD FOR UNIT OF ISSUE.

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

Spill Release Procedures:WET SWEEP OR VACUUM;DO NOT CREATE DUST;PLACE IN AN APPROPRIATE CONTAINE R FOR DISPOSAL.

Neutralizing Agent: NOT APPLICABLE.

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

Handling and Storage Precautions:STORE IN A COOL,DRY,WELL-VENTILATED PLACE.KEEP AWAY FROM HEAT,SPARKS,FLAMES AND PHYSICAL DAMAGE. Other Precautions:NONE SPECIFIED BY MANUFACTURER.

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

Respiratory Protection:WHERE APPROPRIATE,USE A NIOSH/MSHA APPROVED RESPIRATOR FOR TOXIC DUST/RADIONUCLIDES.

Ventilation:U

SE LOCAL EXHAUST WHEN APPROACHING TLV. Protective Gloves:RUBBER Eye Protection:SAFETY GLASSES OR GOGGLES. Other Protective Equipment:PROTECTIVE CLOTHING,AS NEEDED.PROVIDE A LOCAL EYE WASH STATION AND SAFETY SHOWER. Work Hygienic Practices:USE REASONABLE CARE IN HANDLING THIS PRODUCT.WASH HANDS AFTER USE AND BEFORE EATING. Supplemental Safety and Health RICHARDSON HAS SUBMITTED 2 MSDS'S:TUNGSTEN(100%),THORIATED TUNGTSEN(4%THORIUM).MFR FURTHER STATES THAT THIS ITEM DOES NOT CONTAIN MERCURY.
======== Physical/Chemical Properties =========
HCC:N1 Appearance and Odor:ELECTRON TUBE.
======== Stability and Reactivity Data =========
Stability Indicator/Materials to Avoid:YES STRONG OXIDIZING AGENTS(EG. HALOGENS,NITROC AND SULFURINC ACID). Stability Condition to Avoid:NONE SPECIFIED BY MANUFACTURER. Hazardous Decomposition Products:TUNGSTEN TRIOXIDE.
======= Disposal Considerations ==========
Waste Disposal M

ethods:DISPOSE OF IN ACCORDANCE WITH FEDERAL,STATE AND LOCAL REGULATIONS.

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particular situation.