

HEWLETT PACKARD -- 05061-6101 -- 5960-01-022-6922

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

Product ID:05061-6101

MSDS Date:02/25/1981

FSC:5960

NIIN:01-022-6922

MSDS Number: BHLTS

=== Responsible Party ===

Company Name:HEWLETT PACKARD

Address:3000 HANOVER STREET

Box:10301

City:PALO ALTO

State:CA

ZIP:94303

Info Phone Num:(415) 857-1501

Emergency Phone Num:(415) 857-1501

Preparer's Name:ROBERT L. GARTON

CA

GE:HEWLE

=== Contractor Identification ===

Company Name:HEWLETT PACKARD COMPANY

Address:ROUTE 41

City:AVONDALE

State:PA

ZIP:19311-0900

Country:US

Phone:215-268-2281

CAGE:HEWLE

Company Name:HEWLETT-PACKARD CO, CORPORATE HQ

Address:3000 MINUTEMAN RD

Box:City:ANDOVER

State:MA

ZIP:01810-1032

Country:US

Phone:404-648-8754/FAX: 800-947-3299

CAGE:28480

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

Ingred Name:CESIUM METAL

CAS:7440-46-2

RTECS #:FK9225000

Fraction by Wt: 1-5%G

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:INHALATION/INGESTION: LOW DEGREE
LEVELS OF TOXICITY. SKIN/EYES: CORROSIVE.
Explanation of Carcinogenicity:NONE
Effects of Overexposure:SKIN/EYES: CORROSIVE. INHALATION/INGESTION: LOW
DEGREE LEVELS OF TOXICITY.

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

=

First Aid:SKIN/EYES: REMOVE PARTICLES & FLUSH W/PLENTY OF WATER.
INGESTION: INDUCE VOMITING. OBTAIN MED ATTN.

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

Extinguishing Media:HEAVILY SMOTHER BURNING METAL W/CLASS D
EXTINGUISHING AGENT OR DRY SAND.
Fire Fighting Procedures:ISOLATE BURNING METAL WHERE PRACTICAL. DON'T
USE WATER ON CESIUM FIRES.
Unusual Fire/Explosion Hazard:CESIUM IS HIGHLY REACTIVE IN AIR WHICH
PRODUCES MATCH-SIZE FLAMES LASTING SEVERA
L SECONDS. EXPLOSIVE IN
THE PRESENCE OF MOISTURE & VIOLENTLY IN WATER.

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

Spill Release Procedures:COVER W/QUANTITIES OF DRY SAND OR CLASS D FIRE
EXTINGUISHING AGENT. SHOVEL UP & REMOVE TO REMOTE (DRY) AREA ONTO A
STEEL PLATE & PERMIT IT TO OXIDIZE. TUBE RUPTURE: AIR ENTERS THE
OVEN SLOWLY & THE RE ACTION WOULD BE VERY SLOW & CONTAIN W/ITHE
OVEN.

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

=====

Handling and Storage Precautions:AVOID SKIN & EYE CONTACT W/OXIDIZED
CESIUM. STORE IN A DRY AREA FREE OF COMBUSTIBLES.
Other Precautions:STORE UNDER VACUUM OR ARGON IN A SEALED GLASS OR
STAINLESS STEEL CONTAINER & IN A MANNER TO AVOID BREAKAGE.

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

Respiratory Protection:USE ONLY NIOSH APPROVED RESPIRATORS AS
RECOMMENDED BY A QUALIFIED INDUSTRIAL HYGIENIST OR SAFETY ENGINEER
WHERE AIRBORNE PARTICULATE IS GENERATE

RATED.

Ventilation:LOCAL EXHAUST: GENERALLY NOT APPLICABLE TO THE METAL.
COMPOUNDS MAY REQUIRE VENTILATION.

Protective Gloves:YES

Eye Protection:YES

Other Protective Equipment:WEAR FIRE RETARDANT LONG SLEEVE CLOTHING
WHEN HANDLING CESIUM.

Supplemental Safety and Health

THE CESIUM BEAM TUBE PARTS OF THE INSTRUMENT ARE CONTAINED W/I
EVACUATED RUGGED STAINLESS STEEL TUBES. CHARGES OF CESIUM IS
CONTAINED W/I COPPER & STAINLESS STEEL OVENS. OVENS OPERATED AT
85-120C SLOW LY EVAPOR
ATES CESIUM THROUGH SMALL PASSAGES IN
ANTI-SPILL MAZES. THE CESIUM IS ABSORBED ENTIRELY W/I TUBE & IS
STABLE.

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

Boiling Pt:B.P. Text:690C

Melt/Freeze Pt:M.P/F.P Text:83F

Vapor Pres:1

Spec Gravity:1.873

Solubility in Water:VIOLENTLY REACTIVE

Appearance and Odor:SILVER-WHITE DUCTILE METAL OR SILVERY LIQUID

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

Stability Indicator/Materials to Avoid:YES

Stab

ility Condition to Avoid:EXPOSURE TO AIR, WATER, MOISTURE, CHLORINE
& PHOSPHORUS.

Hazardous Decomposition Products:REACTS W/MOISTURE TO FORM HYDROGEN
GAS, OXIDE OR HYDROXIDE.

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

Waste Disposal Methods:AFTER OXIDATION DISPOSE IN SIMILAR MANNER AS
LIME. VERY LITTLE WOULD HAPPEN IF ALL THE CESIUM IN BEAM TUBE WERE
EXPOSED AT ONCE. THE CESIUM IS CONTAINED W/I A RUGGED CYLINDRICAL
STAINLESS STEEL TUBE I NSIDE A HEA

VY METAL OVEN.

Disclaimer (provided with this information by the compiling agencies):
This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.