

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

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===== 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

C
AGE: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

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

Ingred Name:CESIUM METAL
CAS:7440-46-2
RTECS #:FK9225000
Fraction by Wt: 1-5%G

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===== 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.

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

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

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===== 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 SEVER
AL SECONDS. EXPLOSIVE IN
THE PRESENCE OF MOISTURE & VIOLENTLY IN WATER.

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===== 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.

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

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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.

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===== 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 GEN

ERATED.

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 EVAPO
RATES 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

Sta

bility 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 HE

AVY METAL OVEN.

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