

CABOT PERFORMANCE MATERIALS -- CESIUM, CAESIUM, CESIUM-133, C-22, CABO4505 --
6240-01-266-0930

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

Product ID:CESIUM, CAESIUM, CESIUM-133, C-22, CABO4505

MSDS Date:09/10/1998

FSC:6240

NIIN:01-266-0930

Status Code:A

MSDS Number: CKPXF

=== Responsible Party ===

Company Name:CABOT PERFORMANCE MATERIALS

Address:144 HOLLY ROAD

City:BOYERTOWN

State:PA

ZIP:19512

Country:US

Info Phone Num:610-367-2181

Emergency Phone Num:610-367-2181

Resp. Party Other MSDS Num.:CABO4505

Preparer's Name:MDL INFORMATION SYSTEMS

Chemtrec Ind/Phone:(800)424-9300

CAGE:1ENR2

=== Contractor Identification ===

Company Name:CABOT PERFORMANCE MATERIALS

Address:144 HOLLY ROAD

City:BOYERTOWN

State:PA

ZIP:19512

Country:US

Phone:610-367-2181/610-367-8206

Contract Num:SP0441-99-C-5422

CAGE:1ENR2

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

Ingred Name:CESIUM, METAL

CAS:

7440-46-2
RTECS #:FK9225000
= Wt:100.

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

LD50 LC50 Mixture:1700 MG/KG (MOUSE) LD50, INTERPERITONEAL
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:EYE CONTACT: ACUTE: MAY CAUSE SEVERE IRRITATION. CHRONIC: REPEATED OR PROLONGED EXPOSURE MAY CAUSE CONJUNCTIVITIS OR EFFECTS SIMILAR TO ACUTE EXPOSURE. SKIN CONTACT: ACUTE: SKIN BURNS ON CONTACT. CHRONIC: REPEATED OR PROLONGED EXPOSURE MAY CAUSE DERMATITIS, OR EFFECTS SIMILAR TO ACUTE EXPOSURE. INHALATION: ACUTE: CESIUM MAY SEVERELY IRRITATE MUCOUS MEMBRANES. CHRONIC: NO DATA. INGESTION: ACUTE: CESIUM MAY CAUSE SEVERE IRRITATION OF GI TRACT. IT ACTS AS AN ANALOG OF POTASSIUM AND THUS BE POTENTIALLY HARMFUL. REPLACEMENT OF POTASSIUM BY CESIUM WOULD CAUSE ADVERSE NEUROMUSCULAR EFFECTS, AS SEEN IN ANIMAL EXPERIMENTS. CHRONIC: NO DATA.
Effects of Overexposure:EYES: SEVERE IRRITATION, CONJUNCTIVITIS
. SKIN: SKIN BURNS, DERMATITIS. INHALATION:SEVERELY IRRITATED MUCOUS MEMBRANES. INGESTION: SEVERE IRRITATION OF THE GASTROINTESTINAL TRACT, ACVERSE NEUROMUSCULAR EFFECTS.

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

First Aid:EYES: WASH WITH LARGE AMOUNTS OF WATER, OCCASIONALLY LIFTING UPPER AND LOWER LIDS. CONTINUE WITH NORMAL SALINE UNTIL TRANSPORT TO HOSPITAL. COVER WITH STERILE BANDAGES. GET MEDICAL ATTENTION.
SKIN: REMOVE CONTAMINATED CLOTHING, JEWELRY, SHOES. WASH WITH SOAP AND WATER OR MILD DETERGENT AT LEAST 20 MINUTES. COVER BURNS WITH STERILE DRESSING. GET MEDICAL ATTENTION. INHALATION: MOVE FROM EXPOSURE. USE A BAG VALVE MASK TO PERFORM ARTIFICIAL RESPIRATION, OR GIVE OXYGEN AS NEEDED. GET MEDICAL ATTENTION. INGESTION: IF VOMITING OCCURS, KEEP HEAD LOWER THAN HIPS TO PREVENT ASPIRATION. GET MEDICAL ATTENTION.

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

Extinguishing Med

ia:REGULAR DRY CHEMICAL, SAND, LIME, SODA ASH.

Fire Fighting Procedures:DO NOT USE WATER. DO NOT USE FOAM. MOVE CONTAINER FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK. LARGE FIRES: KEEP UNNECESSARY PEOPLE AWAY, ISOLATE HAZARD AREA AND DENY ENTRY. LET THE FIRE BURN.

Unusual Fire/Explosion Hazard:MAY IGNITE ON CONTACT WITH WATER OR MOSIT AIR. DANGEROUS FIRE HAZARD WHEN EXPOSED TO HEAT, FLAME OR WATER.

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

Spill Rele

ase Procedures:AVOID HEAT AND IGNITION SOURCES. DO NOT TOUCH MATERIAL. STOP LEAK. DO NOT GET WATER ON MATERIAL. SMALL DRY SPILLS: COLLECT INTO LOOSELY COVERED CONTAINER. SMALL LIQUID SPILLS: ABSORB WITH SAND OR IN ERT MATERIAL. COLLECT IN SUITABLE CONTAINER. DIKE LARGE SPILLS FOR LATER DISPOSAL. POWDER SPILLS: COVER WITH PLASTIC SHEET TO PROTECT FROM WATER. STAY UPWIND. KEEP OUT OF WATER SUPPLIES AND SEWERS.

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

=====

Handling and Storage Precautions:STORE AND HANDLE IN ACCORDANCE WITH ALL CURRENT REGULATIONS AND STANDARDS. STORE UNDER AN INERT ATMOSPHERE. KEEP SEPERATED FROM INCOMPATIBLE SUBSTANCES.

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

Respiratory Protection:IF RESPIRATORY NEEDED. USE RESPIRATOR RECOMMENDED BY SAFETY OFFICIAL. FOR UNKNOWN CONCENTRATIONS OR IMMEDIATE DANGER TO LIFE OR HEALTH USE SUPPLIED-AIR RESPIRATOR WITH FULL FACEPIECE AND OPERA
TED IN PRESSURE-DEMAND OR OTHER
POSITIVE-PRESSURE MODE IN COMBINATION WITH SEPARATE ESCAPE SUPPLY OR A SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE.

Ventilation:PROVIDE LOCAL EXHAUST VENTILATION SYSTEM. VENTILATION EQUIPMENT SHOULD BE EXPLOSION RESISTANT IF EXPLOSIVE CONCENTRATIONS OF MATERIAL ARE PRESENT.

Protective Gloves:WEAR APPROPRIATE CHEMICAL RESISTANT GLOVES.

Eye Protection:WEAR SPLASH RESISTANT SAFETY GOGGLES WITH FACESHIELD.

Other Protective Equipment:PROV

IDE EMERGENCY EYE WASH FOUNTAIN AND

QUICK DRENCH SHOWER IN IMMEDIATE WORK AREA. WEAR APPROPRIATE CHEMICAL RESISTANT CLOTHING.

Work Hygienic Practices:DO NOT TOUCH MATERIAL. WHEN USING, DO NOT EAT OR DRINK. AVOID CONTACT WITH EYES, SKIN. TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. KEEP OUT OF REACH OF CHILDREN. WEAR EYE AND FACE PROTECTION.

Supplemental Safety and Health

(CONTD FROM INCOMPATIBILITIES-REACTIVITY) SPONTANEOUSLY BURNS IN DRY OXYGEN; VIGOROUS REACTION WITH PHOSPHORUS BELOW 250C; VIOLENT REACTION WITH SULFUR WITH SPONTANEOUS IGNITION AND/OR EXPLOSION.

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

HCC:R2

Boiling Pt:=705.C, 1301.F

Melt/Freeze Pt:=27.8C, 82.F

Vapor Pres:1MM HG @ 279C

Spec Gravity:1.873

Solubility in Water:REACTS VIOLANTLY.

Appearance and Odor:HEXAGONAL CRYSTALS, SILVER-WHITE, DUCTILE METAL OR SILVERY LIQUID.

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

Stability Indicator/Mate

rials to Avoid:NO

OXIDIZING MATERIALS, HALOGENS, COMBUSTIBLE MATERIALS. REACTS WITH CHLORINE GAS WITH LUMINOUS FLAME; VIOLENT REACTION WITH HALOGENS WITH SPONTANEOUS IGNITION AND/OR EXPLOSION; VIGOROUS REACTION WITH OXIDIZERS; (CONTD, SUPLI

Stability Condition to Avoid:AVOID CONTACT WITH AIR, KEEP DRY, KEEP OUT OF WATER SUPPLIES AND SEWERS.

Hazardous Decomposition Products:MISCELLANEOUS PRODUCTS. MAY REACT ON CONTACT WITH WATER WITH EVOLUTION OF HEAT. RELEASES TOXIC, CORR

OSIVE, FLAMMABLE, OR EXPLOSIVE GASES. MAY IGNITE AT ROOM TEMP. AVOID CONTACT WITH TEMP ABOVE -116C.

Conditions to Avoid Polymerization:WILL NOT POLYMERIZE.

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

Toxicological Information:INTRAPERITONEAL (MOUSE) LD50 = 1700 MG/KG.

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

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

===== MSDS Transport Informati

on =====

Transport Information:U.S. DOT PROPER SHIPPING NAME: CESIUM OR CAESIUM, CLASS 4.3, PKG I, UN 1407, LABEL: DANGEROUS WHEN WET. PASSENGER AIRCRAFT OR RAILCAR: FORBIDDEN. CARGO AIRCRAFT ONLY: 15 KG. LAND TRANSPORT ADR/RID: P SN: CAESIUM, UN 1407, CLASS 4.3, ITEM NUMBER: 11(A), WARNING SIGN/LABEL: 4.3, HAZARD ID NUMBER: X423. AIR TRANSPORT IATA/ICAC: PSN: CAESIUM, UN 1407, CLASS 4.3,PKG I, LABEL: DANGEROUS WHEN WET. MARIT INE TRANSPORT IMDG: PSN: CAESIUM, UN 1407, CLASS 4.3, PKG I, EMS NO.: 4.3-01, MED AID NO.: 705, MARINE POLLUTANT: NO.

===== Regulatory Information =====

SARA Title III Information:SARA SECTION 302 (40 CFR 355.30): NO. SARA SECTION 304 (40CFR 355.40): NO. SARA SECTION 313 (40 CFR 372.65): NO. SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40 CFR 370.21): ACUTE: YES, CHRONIC: NO, FIRE: YES, REACTIVE: YES, SUDDEN RELEASE: YES. OSHA PROCESS SAFETY (29 CFR 1910.119): NO.

Federal Regulatory Information:TECA INVENTORY STATUS: YES. TECA 12(B) EXPORT NOTIFICATION: NOT LISTED. CERCLA SECTION 103 (40 CFR 102.4): NO.

State Regulatory Information:CALIFORNIA PROPOSITION 65: NO. EUROPEAN REGULATIONS: EC NUMBER (EINXCS) : 231-155-4. EC RISK AND SAFETY PHRASES: R 11- HIGHLY FLAMMABLE. R 34- CAUSES BURNS. S 2- KEEP OUT OR REACH OF CHILDREN. S 20- W HEN USING DO NOT EAT OR DRINK. S 24- AVOID CONTACT WITH SKIN. S 25- AVOID CONTACT WITH EYES. S 26- I N CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH LENTY OF WATER AND SEEK MEDICAL ADVICE. S 27- TA KE OFF IMMEDIATELY ALL CONTAAMINATED CLOTHING. S 39- WEAR EYE/FACE PROTECTION. S 46- IF SWALLOWED, S EEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.

===== Other Information =====

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.