

ALFA AESAR,A JOHNSON MATTHEY COMPANY -- CESIUM (STOCK # 97715, SEE SUPPL DATA) --
6240-01-266-0930

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

Product ID:CESIUM (STOCK # 97715, SEE SUPPL DATA)

MSDS Date:01/11/2001

FSC:6240

NIIN:01-266-0930

Status Code:A

MSDS Number: CLMCZ

=== Responsible Party ===

Company Name:ALFA AESAR,A JOHNSON MATTHEY COMPANY

Address:30 BOND STREET

City:WARD HILL

State:MA

ZIP:0183

5-0747

Country:US

Info Phone Num:508-521-6300/978-424-9300

Emergency Phone Num:978 521-6300 - 800 424-9300

Chemtrec Ind/Phone:(800)424-9300

CAGE:NO660

=== Contractor Identification ===

Company Name:ALFA AESAR,A JOHNSON MATTHEY COMPANY

Address:30 BOND STREET

Box:City:WARD HILL

State:MA

ZIP:01835-0747

Country:US

Phone:508-521-6300/978-424-9300

CAGE:NO660

Company Name:LORAL ELECTRO-OPTICAL SYSTEMS A SUB OF LORAL CORP

Address:300 N HALSTEAD ST

Box:7101

City:PASADENA

State:CA

ZIP:91109

Country:US

Con

tract Num:SP056000CC080

CAGE:12705

Company Name:SANDERS, A LOCKHEED MARTIN CO (BAE SYSTEMS)

Address:600 E. BONITA AVENUE

Box:City:POMONA

State:CA

ZIP:91767

Country:US

Phone:XXXXXXXXXXXXXX

CAGE:UO698

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

Ingred Name:CESIUM

CAS:7440-46-2

RTECS #:FK9225000

= Wt:100.

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Health Hazards Acute and Chronic:PRIMARY

IRRITANT EFFECT: SKIN:

CORROSIVE TO SKIN AND MUCOUS MEMBRANES. EYE: STRONG CORROSIVE EFFECT. INHALATION MAY RESULT IN RESPIRATORY EFFECTS SUCH AS INFLAMMATION, EDEMA, & CHEMICAL PNEUMONITIS. SENSITIZATION: NO SENSITIZING EFFECTS KNOWN. SUBACUTE TO CHRONIC TOXICITY: CESIUM COMPOUNDS MAY CAUSE HYPER-IRRITABILITY, INCLUDING SPASMS, DIZZINESS, ABDOMINAL CRAMPS, VOMITING, DIARRHEA, CONVULSIONS AND COLLAPSE. CHRONIC INGESTION OF CESIUM HAS BEEN FATAL TO LABORATORY ANIMALS,

POSSIBLY DUE TO THE REPLACEMENT OF POTASSIUM. CHRONIC EXPOSURE ALSO CAN HAVE BLOOD AND NEUROMUSCULAR EFFECTS.

Explanation of Carcinogenicity:NO CLASSIFICATION DATA ON CARCINOGENIC PROPERTIES OF THIS MATERIAL IS AVAILABLE FROM THE EPA, IARC, NTP, OSHA OR ACGIH.

Effects of Overexposure:CORROSIVE MATERIALS ARE ACUTELY DESTRUCTIVE TO THE RESPIRATORY TRACT, EYES, SKIN AND DIGESTIVE TRACT. EYE CONTACT MAY RESULT IN PERMANENT DAMAGE AND COMPLETE VISION LOSS. INHALATION MAY

RESULT IN RESPIRATORY EFFECTS SUCH AS INFLAMMATION, EDEMA, AND CHEMICAL PNEUMONITIS. MAY CAUSE COUGHING, WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND VOMITING. INGESTION MAY CAUSE DAMAGE TO THE MOUTH, THROAT AND ESOPHAGUS. MAY CAUSE SKIN BURNS OR IRRITATION DEPENDING ON THE SEVERITY OF THE EXPOSURE. SWALLOWING WILL LEAD TO A STRONG CORROSIVE EFFECT ON MOUTH AND THROAT AND TO THE DANGER OF PERFORATION OF ESOPHAGUS AND STOMACH.

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First Aid Measures =====

First Aid:GENERAL INFORMATION: IMMEDIATELY REMOVE ANY CLOTHING SOILED BY THE PRODUCT. AFTER INHALATION: SUPPLY FRESH AIR. IF REQUIRED, PROVIDE ARTIFICIAL RESPIRATION. KEEP PATIENT WARM. SEEK IMMEDIATE MEDICAL ADVICE. AFTER SKIN CONTACT: IMMEDIATELY WASH WITH WATER AND SOAP AND RINSE THOROUGHLY. SEEK IMMEDIATE MEDICAL ADVICE. AFTER EYE CONTACT: RINSE OPENED EYE FOR SEVERAL MINUTES UNDER RUNNING WATER. THEN CONSULT A DOCTOR. AFTER SWALLOWING SEEK IMMEDIATE MEDICAL ADVICE.

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

Autoignition Temp:Autoignition Temp Text:N/D

Lower Limits:N/D

Upper Limits:N/D

Extinguishing Media:SPECIAL POWDER FOR METAL FIRES. DO NOT USE WATER.

FOR SAFETY REASONS UNSUITABLE EXTINGUISHING AGENTS: WATER.

Fire Fighting Procedures:WEAR SELF-CONTAINED RESPIRATOR. WEAR FULLY PROTECTIVE IMPERVIOUS SUIT.

Unusual Fire/Explosion Hazard:CONTACT WITH WATER RELEASES HYDROGEN

(EXPLOSIVE).

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

Spill Release Procedures:WEAR PROTECTIVE EQUIPMENT. KEEP UNPROTECTED PERSONS AWAY. ENSURE ADEQUATE VENTILATION. KEEP AWAY FROM IGNITION SOURCES. DO NOT ALLOW MATERIAL TO BE RELEASED TO THE ENVIRONMENT WITHOUT PROPER GOVERNMENTAL PERMITS. PICK UP MECHANICALLY. DISPOSE CONTAMINATED MATERIAL AS WASTE. ENSURE ADEQUATE VENTILATION. DO NOT FLUSH WITH WATER OR AQUEOUS CLEANSING AGENTS. KEEP AWAY

Y FROM
IGNITION SOURCES.

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Handling and Storage
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Handling and Storage Precautions:HANDLE UNDER DRY PROTECTIVE GAS. KEEP CONTAINER TIGHTLY SEALED. STORE IN COOL, DRY PLACE IN TIGHTLY CLOSED CONTAINERS. ENSURE GOOD VENTILATION AT WORKPLACE. PROTECT FROM HUMIDITY AND WATER. KEEP IGNITION SOURCES AWAY.

Other Precautions:STORE AWAY FROM WATER/MOISTURE. STORE AWAY FROM OXIDIZING AGENTS. STORE UNDER DRY INERT GAS. AVOID CONTACT WITH

AIR/OXYGEN. KEEP CONTAINER TIGHTLY SEALED. STORE IN COOL, DRY CONDITIONS IN WELL SEALED CONTAINERS. STORE UNDER LOCK AND KEY AND WITH ACCESS RESTRICTED TO TECHNICAL EXPERTS OR THEIR ASSISTANTS ONLY.

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Exposure Controls/Personal Protection
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Respiratory Protection:PROPERLY OPERATING CHEMICAL FUME HOOD DESIGNED FOR HAZARDOUS CHEMICALS AND HAVING AN AVERAGE FACE VELOCITY OF AT LEAST 100 FEET PER MINUTE. USE SUITABLE RESPIRATOR WHEN HIGH CONCENT

RATIONS ARE PRESENT .

Ventilation:NOT REQUIRED.

Protective Gloves:IMPERVIOUS GLOVES.

Eye Protection:SAFETY GLASSES. TIGHTLY SEALED GOGGLES. FULL FACE PROTECTION.

Other Protective Equipment:PROTECTIVE WORK CLOTHING.

Work Hygienic Practices:KEEP AWAY FROM FOODSTUFFS, BEVERAGES AND FEED. REMOVE ALL SOILED AND CONTAMINATED CLOTHING IMMEDIATELY. WASH HANDS BEFORE BREAKS AND AT THE END OF WORK. AVOID CONTACT WITH THE EYES AND SKIN.

Supplemental Safety and Health

CONT'D PRODUCT ID: MFR C

ODE: 12705, DESIGN CONTROL # 1161666. NSN IS

FOR CESIUM LAMP BUT MFR HAS PROVIDED A MSDS FOR CESIUM METAL. SEALED LAMP WILL BE NON-HAZARDOUS AS SUCH, BUT CESIUM METAL IS HAZARDOUS.

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Physical/Chemical Properties
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HCC:R2

Boiling Pt:=690.C, 1274.F

Melt/Freeze Pt:=28.9C, 84.F

Decomp Temp:Decomp Text:NOT DETERMINED

Vapor Pres:279C(534F): 1.33 HPA

Vapor Density:1.892 G/CM

Solubility in Water:REACTS VIOLENTLY

Appearance and Odor:SILVER-COLORED ODORLESS

SS, SOLID.

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

Stability Indicator/Materials to Avoid: YES

WATER/MOISTURE, OXIDIZING AGENTS, ACIDS, HALOGENS.

Stability Condition to Avoid: DECOMPOSITION WILL NOT OCCUR IF USED AND STORED ACCORDING TO SPECIFICATIONS.

Hazardous Decomposition Products: EXPLOSIVE REACTION WITH WATER. CONTACT WITH WATER RELEASES FLAMMABLE GASES. REACTS WITH OXIDIZING AGENTS, ALCOHOLS, OXYGEN, CARBON DIOXIDE. SELF-IGNITING ON CONTACT WITH AIR AND DRY SURFACES. HYDROGEN.

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

Toxicological Information: SEE HEALTH HAZARDS. MATERIAL IS CORROSIVE AND HIGHLY FLAMMABLE, REACTS WITH WATER LIBERATING EXTREMELY FLAMMABLE GASES.

===== Ecological Information =====

Ecological: DO NOT ALLOW THE MATERIAL TO BE RELEASED TO THE ENVIRONMENT WITHOUT PROPER GOVERNMENTAL PERMITS.

===== Disposal Considerations =====
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Waste Disposal Methods: RECOMMENDATION: CONSULT STATE, LOCAL OR NATIONAL REGULATIONS FOR PROPER DISPOSAL. UNCLEANNED PACKAGINGS: RECOMMENDATION: DISPOSAL MUST BE MADE ACCORDING TO OFFICIAL REGULATIONS.

===== MSDS Transport Information =====

Transport Information: PSN: CESIUM, 4.3, UN1407, I.

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

Federal Regulatory Information: TSCA INVENTORY STATUS: THE COMPONENTS OF THIS PRODUCT

ARE LISTED ON THE TSCA INVENTORY.

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

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