

OAK RIDGE NATIONAL LABORATORY -- THORIUM-232 -- 6665-01-247-7284

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

Product ID:THORIUM-232

MSDS Date:01/01/1987

FSC:6665

NIIN:01-247-7284

MSDS Number: CCCGJ

=== Responsible Party ===

Company Name:OAK RIDGE NATIONAL LABORATORY

City:OAK RIDGE

State:TN

Country:US

Info Phone Num:215-343-5900 FAX: 215-343-4670

CAGE:NO290

=== Contractor Identification ===

Company Name:ATO

MIC ENERGY COMMISSION - OAK RIDGE

CAGE:81924

Company Name:NUCLEAR RESEARCH CORP

Address:125 TITUS AVE

Box:H

City:WARRINGTON

State:PA

ZIP:18976-2424

Country:US

CAGE:96696

Company Name:OAK RIDGE NATIONAL LABORATORY

City:OAK RIDGE

State:TN

Country:US

Phone:215-343-5900 FAX: 215-343-4670

CAGE:NO290

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

Ingred Name:THORIUM 232 (0.03 MICOCURIES OR 30 NANOCURIES)

Other REC Limits:NONE RECOMMENDED

=====  
Hazards Identifi

cation =====

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

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:ACUTE: SKIN-RADIOACTIVE EXPOSURE OF BARE SKIN CAN RESULT FOR PROLONGED EXPOSURE. INGESTION-RADIOACTIVE EXPOSURE OF INTERNAL ORGANS CAN RESULT FROM INGESTION OF METAL. CHRONIC EFFECTS/CARCINOGENICITY: PROLONGED EXPOSURE CAN BE CARCINOGENIC.

Explanation of Carcinogenicity:EXPOSURE TO RADIOACTIVITY OVER EXTENDED

PERIODS OF TIME MAY CAUSE VARIOUS FORMS OF CANCER.

Effects of Overexposure:NONE SPECIFIED BY MANUFACTURER.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:NONE SPECIFIED BY MANUFACTURER. DLA-HMIS: GET VICTIM TO PHYSICIAN OR EMERGENCY ROOM IMMEDIATELY. BE SURE AND TELL MEDICAL PERSONNEL THAT POSSIBLE RADIOACTIVITY/RADIATION IS INVOLVED.

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

Flash Point:NONE

Lower Limits:NONE

Upper Limits:NONE

Extinguishing Media:NONE SPECIFIED BY MANUFACTURER. DLA-HMIS: MEDIA APPROPRIATE FOR SURROUNDING FIRE.

Fire Fighting Procedures:AS A MINIMUM; RESPIRATORY PROTECTION FOR FIRE FIGHTING OPERATIONS INVOLVING LARGE AMOUNTS OF SOURCE MATERIAL AS THE SMOKE MAY BE RADIOACTIVE.

Unusual Fire/Explosion Hazard:NONE SPECIFIED BY MANUFACTURER.

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

Spill

Release Procedures:MOVE UNDAMAGED PACKAGES FROM THE SPILL AREA. PICK-UP MATERIAL. DECONTAMINATE THE SPILL AREA.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:KEEP IN STORAGE CONTAINER WHEN NOT IN USE. DO NOT TOUCH CHECK SOURCE WITH BARE HAND.

Other Precautions:NONE SPECIFIED BY MANUFACTURER.

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

Respiratory Protectio

n:NONE NORMALLY REQUIRED.  
Ventilation:NONE NORMALLY REQUIRED.  
Protective Gloves:NONE NORMALLY REQUIRED.  
Eye Protection:NONE NORMALLY REQUIRED.  
Other Protective Equipment:NONE NORMALLY REQUIRED.  
Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.  
Supplemental Safety and Health

THIS CHECK SOURCE IS PROVIDED WITH ION CHAMBER, P/N C-7757. THIS ION CHAMBER IS FOUND ON RADIACMETER, P/N SM400, NSN 6665-01-157-3780. REFERENCE DATA/LITERATURE-T.O. 11H4-7-15-1. MFR REP, MR. TERRY SCHWAGER, 16 OCT 1996 STATED THAT THERE IS NO MSDS REQUIRED BUT ONE PROVIDED FOR INFO ONLY.

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

HCC:A2  
Boiling Pt:B.P. Text:8132F,4500C  
Spec Gravity:18.95  
Solubility in Water:INSOLUBLE.  
Appearance and Odor:THORIUM METAL FOUND IN CHECK SOURCE PROVIDED WITH ION CHAMBER (P/N C-7757).

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

Stability Indicator/Materials to Avoid:YES  
AVOID CONTACT WITH CHLORINE, SULFUR, PHOSPHORUS AND CONCENTRATED ACIDS.  
Stability Condition to Avoid:NONE  
Hazardous Decomposition Products:NONE  
Conditions to Avoid Polymerization:WILL NOT OCCUR.

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

Waste Disposal Methods:DISPOSE OF IAW LOCAL, STATE & FEDERAL ENVIRONMENTAL REGULATIONS (TITLE 10 CFR). DOD PERSONNEL-REMOVE CHECK SOURCE & DISPOSE OF THROUGH YOUR SERVICE LOW LEVEL RADIOACTIVE WASTE SOURCE POC; THEN TURN IN IONIZATION CHAMBER W/O CHECK SOURCE  
TODRMO.

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

ar situation.