

CERAC, INC -- THORIUM FLUORIDE, POWDER AND PIECES -- 5855-01-301-0158

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Product Identification
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Product ID:THORIUM FLUORIDE, POWDER AND PIECES

MSDS Date:08/05/1993

FSC:5855

NIIN:01-301-0158

MSDS Number: BVVFD

=== Responsible Party ===

Company Name:CERAC, INC

Address:1316 W. ST PAUL AVE.

City:MILWAUKEE

State:WI

ZIP:53233

Country:US

Info Phone Num:414-289-9800

Emergency Phone Num:800-424-9

300(CHEMTREC)/800-562-8236

Preparer's Name:DR. MITCH COLTON

CAGE:NO388

=== Contractor Identification ===

Company Name:CERAC, INC

Address:1316 W. ST PAUL AVE.

Box:City:MILWAUKEE

State:WI

ZIP:53233

Country:US

Phone:414-289-9800

CAGE:NO388

Company Name:CERAC, INCORPORATED

Address:1316 W. ST. PAUL AVENUE

Box:1178

City:MILWAUKEE

State:WI

ZIP:53233

Country:US

Phone:414-289-9800

CAGE:67027

Company Name:SEQUA CORP., KOLLSMAN DIVISION

Address:220 DANIEL WEBSTER HWY S

Box:City:MERRIMACK

State:NH

ZIP:03054

-4809
Country:US
Phone:603-889-2500
CAGE:89944

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Composition/Information on Ingredients
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Ingred Name:THORIUM TETRAFLUORIDE
CAS:13709-59-6
Fraction by Wt: 100%
Other REC Limits:NONE RECOMMENDED

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Hazards Identification
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LD50 LC50 Mixture:LD50 NOT TOXICITY DATA RECORDED.
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES
Health Hazards Acute and Chronic:ACUTE:I
NHAL:RESP TRACT/MUC MEMBRAN
IRRIT.INGEST:MODERATELY TOXIC.MAY CAUSE GI
IRRIT.SKIN:IRRIT,DERM,RASHES,SKIN
GRANULOMES.EYE:IRRIT.CHRONIC:INHAL:FLUOROSIS,PULM FIBROSIS,SEVERE
BONE CHANGES,RADIATION SICKNESS.INGEST:CIRCULATORY,ENZYMEN,NERVOUS
SYS,RADIATION SICKNESS.SKIN:DERM.EYE:NO EFFECTS RECORDED.
Explanation of Carcinogenicity:PER MSDS:THORIUM IS A SUSPECTED
CARCINOGEN.TAKEN INTENALLY AS THO2 CARCINOGENIC DUE TO ITS
RADIOACTIVITY.
Effects of Overexposure:INHAL:EXCESS

SALV,THIRST,SWEAT,VOMIT,COLIC,DIARR,FIBROSIS:SCLEROSIS OF
BONES,CALIFICATION OF LIGAMENTS,MOTTLED
TEETH,OSTEOSCLEROSIS,OSTEMALACIN,WT
LOSS,ANOREXIA,ANEMIA,WASTING,CACHIS,DENTAL DEFFECTS.I
NGEST:NAU,VOMIT,DIARR,ABDOM BURNING,CRAMP-LIKE PAIN,STIFF
SPINE,CALICIFICATION OF RIBS/PELVIS LIGAMENTS.SKIN/EYE:RED,ITC
Medical Cond Aggravated by Exposure:PRE-EXISTING RESPIRATORY & SKIN
DISORDERS & MAY CAUSE OR AGGRAVATE ATTACKS OF ASTHMA. TARGET
ORGANS:SKELETON,KIDNEYS,CNS,RES
P SYS,SKIN.

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First Aid Measures
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First Aid:INHAL:REMOVE TO FRESH AIR.KEEP WARM/QUIET.GIVE OXY IF DIFF
BREATH.SEEK MED ATTN IMMED. INGEST:DO NOT INDUCE VOMIT. SEEK MED
ATTN IMMED. SKIN:REMOVE CONTAMIN CLOTHING. BRUSH MATL OFF SKIN.
WASH W/MILD SOAP & WATER. SEEK MED ATTN IMMED. EYE:FLUSH
W/LUKEWARM WATER LIFTING EYELIDS FOR @ LEAST 15MINS. SEEK MED ATTN
IMMED.

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Fire Fighting Measures
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Extinguishing Media:NOT APPLICABLE. USE SUITABLE EXTINGUISHING MEDIA FOR SURROUNDING MATERIALS AND TYPE OF FIRE.

Fire Fighting Procedures:MUST WEAR FULL FACE SCBA W/FULL PROTECTIVE CLOTHING OT PREVENT CONTACT W/SKIN/EYES.FUMES FROM FIRE HAZ.ISOLATE RUNOFF TO PREVENT ENVIRONMENTAL POLLUTION.

Unusual Fire/Explosion Hazard:THORIUM FLUORIDE MAY EMIT TOXIC FUMES OF FLUORINE & RADIOACTIVE MATERIALS IF INVOLVED IN A FIRE.

===== Accidental Release Measures =====
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Spill Release Procedures:WEAR APPROPRIATE RESP & PROTECTIVE EQPMT.ISOLATE SPILL AREA.PROVIDE VENTILATION.VACUUM SPILL USING HIGH EFFICIENCY PARTICULATE ABSOLUTE (HEPA) AIR FILTER & PLACE IN CLOSED CONTAINER FOR PROPER DISPOSAL. TAKE CARE NOT TO RAISE DUST.

Neutralizing Agent:NOT APPLICABLE.

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

Handling and Storage Precautions:STORE IN COOL, DRY AREA. STORE INTIGHTLY SEALED CONTAINER. DO NOT USE TOBACCO/FOOD IN WORK AREA.

Other Precautions:NONE.

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

Respiratory Protection:NIOSH/MSHA APPROVED DUST RESPIRATOR W/RADIONUCLIDES & HEPA FILTERS.

Ventilation:LOC EXH TO MAINTIAN CONCEN @/BELOW NRC,PEL,TLV.MECH(GEN):RECOMMENDED.PERSONAL FILM BADGES OR DOSIMETERS SHOULD BE INCLUD

Protective Gloves:TWO PAIRS RUBBER GLOVES.

Eye Protection:SAFETY GOGGLES.

Other Protective Equipment:PROT GEAR SUITABLE TO PREVENT CONTAMINATION.IMP

LEMENT ENGINEERING/WORK PRAC CNTRLS TO REDUCE/MAINT EXPO CONCEN @LOW LEVE

Work Hygienic Practices:WASH WELL BEFORE EAT/SMOKE & AFT HANDLING.WASH CONTAMIN CLOTHING PRIOR TO REUSE.USE GOOD HOUSEKEEPING/SANITATION PRACTIC

Supplemental Safety and Health

PER MFG LENS OF INSTRUMENT IS COATED W/THORIUM FLUORIDE.

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

HCC:A1

Melt/Freeze Pt:M.P/F.P Text:1652F,900C

Vapor Pres:N/NA

Spec Gravity:6.32 @24C

Solubility in Water:INSOL

UBLE.

Appearance and Odor:SOLID, WHITE POWDER OR PIECES, NO ODOR.

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

Stability Indicator/Materials to Avoid:YES

STRONG ACIDS, ALKALIS, THIOCYANATES & INTERAHALOGENS.

Stability Condition to Avoid:NONE.

Hazardous Decomposition Products:FUMES OF FLUORINE. ALPHA OR BETA PARTICLES & GAMMA RADIATION.

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

Waste Disposal Methods:DISPOSE OF IN ACCORDANCES WITH LOCAL, STATE AND

FEDERAL REGULATIONS. 82.8UCI/KG OF THORIUM FLUORIDE.

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