

METCO INC, SUB OF THE PERKIN-ELMER CORP -- METCO 210NS-1G, MAGNESIUM ZIRCONATE POWDER -- 3439-01-380-4385

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

Product ID:METCO 210NS-1G, MAGNESIUM ZIRCONATE POWDER

MSDS Date:08/19/1992

FSC:3439

NIIN:01-380-4385

MSDS Number: BYSGT

=== Responsible Party ===

Company Name:METCO INC, SUB OF THE PERKIN-ELMER CORP

Address:1101 PROSPECT AVENUE

City:WESTBURY

State:NY

ZIP:1159

0-2724

Country:US

Info Phone Num:516-334-1300

Emergency Phone Num:202-483-7616/800-424-9300(CHEMTREC)

CAGE:39918

=== Contractor Identification ===

Company Name:METCO INC, SUB OF THE PERKIN-ELMER CORP

Address:1101 PROSPECT AVENUE

Box:City:WESTBURY

State:NY

ZIP:11590-2724

Country:US

Phone:516-334-1300

CAGE:39918

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

Ingred Name:ZIRCONIUM OXIDE

CAS:7440-67-7

RTECS #:ZH7070000

Fraction by Wt: 75.0%

Other REC Limits:NONE RECOMMENDED

O

SHA PEL:5 MG/M3  
ACGIH TLV:5 MG/M3/10 STEL;9495

Ingred Name:MAGNESIUM OXIDE  
CAS:1309-48-4  
RTECS #:OM3850000  
Fraction by Wt: 22.0%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:15 MG/M3 PARTICULATE  
ACGIH TLV:10 MG/M3; FUME; 9495

Ingred Name:HAFNIUM OXIDE  
CAS:12055-23-1  
Fraction by Wt: 1.5%  
Other REC Limits:NONE RECOMMENDED

Ingred Name:CALCIUM OXIDE  
CAS:1305-78-8  
RTECS #:EW3100000  
Fraction by Wt: 0.5%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:5 MG/M3  
ACGIH TLV:2 MG/M3; 9495

Ingred Name:SILICA GEL  
(SILICON DIOXIDE)  
CAS:112945-52-5  
RTECS #:VV7310000  
Fraction by Wt: 1.0%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:6 MG/M3  
ACGIH TLV:10 MG/M3

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:ZIRCONIUM OXIDE:INHAL HAZ.NUISANCE  
DUST.CAN IRRIT SKIN/MUC MEMB. MAGNESIUM OXIDE:INHAL/SK

IN HAZ.MAY

CAUSE METAL FUME FEVER,RESP DISTRESS,MUC MEMB.EYE IRRIT. HAFNIUM  
OXIDE:INHAL/EYE/SKIN HAZ.IRRIT RESP TRACT.MILD SKIN/EYE IRRIT.  
CALCIUM OXIDE:SKIN/EYE/INHAL HAZ.IRRIT NOSE/THROAT.SKIN/EYE  
BURNS,DERM. (SUPPLEMENTAL)

Effects of Overexposure:EYE IRRIT, SKIN IRRIT/DERMATITIS, INHAL IRRIT,  
INGESTION POSSIBLE IRRITATION.

Medical Cond Aggravated by Exposure:RESPIRATORY CONDITONS, DERMATITIS.  
TARGET ORGANS:LUNGS, SKIN, RESPIRATORY TRACT, EYES, UPPER RESP  
TRACT.

=

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

First Aid:EYE:FLUSH W/WATER.IF IRRIT PERSISTS CONSULT PHYSICIAN.  
SKIN:WASH W/SOAP/WATER. INHAL:EXPOSE TO FRESH AIR.CONSULT PHYSICIAN  
IF IRRIT OR RESPIRATORY DISTRESS PERSISTS. INGEST:CONSULT  
PHYSICIAN.

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

Extinguishing Media:USE CLASS D EXTINGUISHERS.  
Fire Fighting Procedures:TREAT AS METALLIC FIRE.  
Unusual Fire/Explosion Hazard:FINE METAL DUSTS ARE  
FLAMM.MAY EXPLODE  
WHEN EXPOSED TO HEAT/FLAME/OXIDIZERS.HEATED ZIRCONIUM MAY REACT  
W/WATER OR STEAM TO PRODUCE FLAMM HDYROGEN GAS.

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

Spill Release Procedures:VACUUM LOOSE POWDER ONLY W/VACUUMS EQUIPPED  
W/HEPA FILTRATION. WET WIPE AREA CLEAN. DO NOT DRY SWEEP. AVOID  
GENERATING AIRBORNE DUST.  
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:STORE AWAY FROM INCOMPATIBLES.STORE  
PROD CONTNRS IN WELL-VENTI,CLEAN,COOL,DRY AREA.STORE IN MANNER TO  
MINIMIZE PUNCTURES/BREAKAGE OF CNTNRS.  
Other Precautions:AVOID INGEST/INHAL/EXCESSIVE SKIN CONTACT.AVOID  
CONTACT OF POWDER W/WATER/OXIDIZERS.

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

Respiratory Protection:RESPIRATOR APPROVED BY NIOSH W/FILTER CARTRIDGES  
APPROVED FOR DUST/FUME/MISTS SHOULD BE WORN AT ALL TIMES DURING

THERMAL SPRAY PROCESS TO PROTECT OPERATOR FROM EXPO TO DUST/FUMES. RESP MAY ALSO BE WORN WHEN PRODUCT HDNGL GENERATES DUST.

Ventilation: PRODUCT SHOULD BE USED W/ APPROPRIATE LOCAL EXHAUST VENTILATION PROVIDED.

Protective Gloves: ALUMINIZED GLOVE- PLASMA SPRAY, RUBB- OTHER

Eye Protection: SEE OTHER PRECAUTION SECTION OF MSDS.

Other Protective Equipment: EAR PROT- EXCESS NOISE LEVELS. OTHER APPRO PROT CLOTH AS NECESSARY- PROD HDLG EXCESS SKIN CONTACT. EYEWASH STATIONS, WASH FAC

Work Hygien

ic Practices: WASH HANDS AFTER HANLDING.

Supplemental Safety and Health

HEALTH HAZ: SILICON DIOXIDE: INHAL/ SKIN/ EYE HAZ. INHAL: SILICOSIS, SKIN/ EYE IRRIT DUE TO ABRASIVENESS.

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

HCC: V7

Melt/Freeze Pt: M.P/ F.P Text: 3500F, 1927C

Spec Gravity: 1.8-2.1

Solubility in Water: NEGLIGIBLE.

Appearance and Odor: POWDER, NO ODOR.

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

Stability Indicator/ Materials to Avoid: YES

OXIDIZ

ERS, ACIDS, SULFUR.

Stability Condition to Avoid: NONE SPECIFIED BY MANUFACTURER.

Hazardous Decomposition Products: OZONE & NITRIC ACID ARE FORMED BY PLASMA FLAME (SIMILAR TO WELDING FUMES). THIS ACTION IS INDEPENDENT OF THE METAL POWDER.

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

Waste Disposal Methods: EMPTY PRODUCT CNTNRS/ PROD WASTE/ CLEANING MEDIA SHOULD BE STORED & DISPOSE OF ACCORDING TO APPROPRIATE LOC/ STATE/ FED REGULATORY GUIDELINES.

Disclaimer (pro

vided 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.