

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

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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.

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===== 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.

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vided with this information by the compiling agencies):

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