

METCO PERKIN-ELMER -- METCO 443, 443NS -- 3439-01-380-4214

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

Product ID:METCO 443, 443NS

MSDS Date:05/03/1993

FSC:3439

NIIN:01-380-4214

MSDS Number: BYCRZ

=== Responsible Party ===

Company Name:METCO PERKIN-ELMER

Address:1101 PROSPECT AVENUE

Box:1006

City:WESTBURY

State:NY

ZIP:11590-0201

Country:US

Info Phone Num:516-334-1300;202-483-7616

Emergency Phone Num:516-334-1300;800-424-9300(CHEMTREC)

CAGE:FO877

=== 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

Company Name:METCO PERKIN-ELMER

Address:1101 PROSPECT AVENUE

Box:1006

City:WESTBURY

State:NY

ZIP:11590-0201

Phone:(516) 334-1300

CAGE:FO877

Company Name:SULZER METCO (US) INC

Address:1101 PROSPECT AVE

Box:City:WESTBURY

State:NY

ZIP:11590-2724

Country:US

Phone:516-334-1300

CAGE:01FK3

===== Composition/Information

on Ingredients =====

Ingred Name:ALUMINUM (SARA III)
CAS:7429-90-5
RTECS #:BD0330000
Fraction by Wt: 6% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:15MG/M3 DUST/5 FUME
ACGIH TLV:10MG/M3 DUST; 9192

Ingred Name:MANGANESE (SARA III)
CAS:7439-96-5
RTECS #:OO9275000
Fraction by Wt: 1% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:5 MG/M3 DUST
ACGIH TLV:5 MG/M3 DUST 9192

Ingred Name:SILICON
CAS:7440-21-3
RTECS #:VW0400000
Fraction by Wt: 1% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:10
MG/M3 TDUST
ACGIH TLV:10 MG/M3 TDUST; 9192

Ingred Name:CHROMIUM (SARA III)
CAS:7440-47-3
RTECS #:GB4200000
Fraction by Wt: 18% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:1 MG/M3
ACGIH TLV:0.5 MG/M3; 9192
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:IRON
CAS:7439-89-6
RTECS #:NO4565500
Fraction by Wt: 1% %
Other REC Limits:NONE RECOMMENDED

Ingred Name:NICKEL (SARA III)
CAS:7440-02-0
RTECS #:QR5950000
Fraction by Wt: 72% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/

Ingred Name:ORGANIC BINDER

Fraction by Wt: 1% %

Other REC Limits:NONE RECOMMENDED

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO

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

Health Hazards Acute and Chronic:INHALATION MAY CAUSE PNEUMOCONIOSIS,
SILICOSIS, SIDEROSIS, PULMONARY FIBROSIS, DEPRESSION OF CENTRAL
NERVOUS SYSTEM, CANCERS OF THE L
UNG AND NASAL SINUSES AND STOMACH.

PULMONARY, SKIN AND EYE IRRITANT DUE TO ABRASIVE ACTION. MAY CAUSE
DERMATITIS, SENSITIZATION OR CHROME LESIONS.

Explanation of Carcinogenicity:CONTAINS CHROMIUM, NICKEL, CRYSTALLINE
SILICA POSSIBLE HUMAN CARCINOGENS.

Effects of Overexposure:MAY CAUSE EYE IRRITATION, SKIN IRRITATION,
DERMATITIS, SKIN LEISIONS, RESPIRATORY TRACT IRRITATION,
PNEUMOCONIOSIS, POSSIBLE LUNG AND/OR NASAL SINUS CANCER, SHORTNESS
OF BREATH, COUGH, DECREASED CHES
T EXPANSION, LESSENED CAPACITY FOR
WORK,HEADACHE, DIZZINESS, INCOORDINATION, DROWSINESS.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:EYES: FLUSH WITH SUFFICIENT AMOUNTS OF WATER. IF IRRITATION
PERSISTS, CONSULT A PHYSICIAN. SKIN: IF IRRITATION OCCURS, WASH
WITH SOAP AND WATER TO REMOVE POWDER. INHALATION: EXPOSE TO FRESH
AIR. CONSU LT PHYSICIAN IF IRRITATION OR RESPIRATORY DI
STRESS
PERSISTS. INGESTION: CONSULT A PHYSICIAN.

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

Flash Point:NONE

Lower Limits:NOT GIVEN

Upper Limits:NOT GIVEN

Extinguishing Media:USE CLASS D FIRE EXTINGUISHER.

Fire Fighting Procedures:TREAT AS A METAL FIRE.

Unusual Fire/Explosion Hazard:FINE METAL DUSTS ARE FLAMMABLE AND MAY
EXPLODE WHEN EXPOSED TO HEAT, FLAME OR STRONG OXIDIZERS. ALUMINUM
IS A FLAMMABLE SOLID, DON'T EXPOSE TO WATER OR MOISTURE

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

Spill Release Procedures:VACUUM LOOSE POWDER ONLY WITH VACUUMS EQUIPPED WITH HEPA FILTRATION. VACUUMS APPROPRIATE FOR USE WITH ALUMINUM METALLIC SHOULD BE UTILIZED. WIPE THE AREA CLEAN. DO NOT USE WATER FOR CLEAN UP OPERATION S. DO NOT SWEEP. AVOID GENERATING AIRBORNE DUST.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:

STORE AWAY FROM INCOMPATIBLES. STORE

PRODUCT CONTAINERS IN WELL VENTILATED, CLEAN, COOL AND DRY AREA.

AVOID PHYSICAL DAMAGE.

Other Precautions:AVOID CONTACT OF MATERIAL WITH WATER OR OXIDIZERS. DO NOT INGEST. AVOID INHALATION, PROLONGED OR REPEATED SKIN CONTACT OR CONTACT WITH EYES.

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

Respiratory Protection:A RESPIRATOR APPROVED BY NIOSH WITH FILTER CARTRIDGES APPROVED FOR DUST/FUMES/MISTS SHOULD BE WORN AT ALL

TIMES DURING THERMAL SPRAY PROCESS TO PROTECT OPERATOR. RESPIRATORS MAY ALSO BE WORN WHEN PROD UCT HANDLING GENERATES DUST.

Ventilation:USE ONLY WITH ADEQUATE LOCAL EXHAUST VENTILATION.

Protective Gloves:ALUMINIZED GLOVES DURING PROCESSING

Eye Protection:CHEMICAL WORKERS GOGGLES

Other Protective Equipment:HEARING PROTECTION. ALUMINIZED APRONS DURING PROCESSING & OTHER APPROPRIATE PROTECTIVE CLOTHING.

Work Hygienic Practices:WASH HANDS THOROUGHLY WITH SOAP AND WATER BEFORE EA

TING, DRINKING, SMOKING OR USING TOILET FACILITIES.

Supplemental Safety and Health

EYE WASH STATIONS ARE RECOMMENDED.

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

HCC:N1

Boiling Pt:B.P. Text:NOT GIVEN

Melt/Freeze Pt:M.P/F.P Text:1300-2600F

Vapor Pres:NOT GIVEN

Vapor Density:NOT GIVEN

Spec Gravity:NOT GIVEN

Solubility in Water:NEGATIVE

Appearance and Odor:POWDER, NO ODOR

Percent Volatiles by Volume:NIL

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

Stability Indicator/Materials to Avoid: YES

OXIDIZERS, ACIDS, SULFUR, $\text{Ni}(\text{NO}_3)_2$, COMBUSTIBLES. ORGANIC BINDER IS INCOMPATIBLE WITH ACIDS, BASES, ALDEHYDES, HALOGENS.

Stability Condition to Avoid: WATER, MOISTURE, HEAT, FLAME.

Hazardous Decomposition Products: OZONE AND NITRIC OXIDE ARE FORMED BY PLASMA FLAME. THE ORGANIC BINDER BURNING AT ELEVATED TEMPS MAY PRODUCE CO, PHENOL.

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

Waste Disposal Methods: DISPOSE OF IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.

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