

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:516-3

34-1300;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

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Composition/Information on Ingredients  
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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  
F  
raction 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% %  
O

ther REC Limits:NONE RECOMMENDED

OSHA PEL:1 MG/M3

ACGIH TLV:1 MG/M3; 9192

Ingred Name:ORGANIC BINDER

Fraction by Wt: 1% %

Other REC Limits:NONE RECOMMENDED

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===== 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 FIB

ROSIS, DEPRESSION OF CENTRAL

NERVOUS SYSTEM, CANCERS OF THE LUNG 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 N

ASAL SINUS CANCER, SHORTNESS

OF BREATH, COUGH, DECREASED CHEST EXPANSION, LESSEned CAPACITY FOR  
WORK,HEADACHE, DIZZINESS, INCOORDINATION, DROWSINESS.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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===== 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 DISTRESS  
PERSISTS. INGESTION: CONSULT A PHYSICIAN.

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===== 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 F

LAMMABLE SOLID, DON'T EXPOSE TO WATER OR MOISTURE

===== 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 PRODUCT 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 EATING, 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

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

Stability Indicator/Materials to Avoid: YES

OXIDIZERS, ACIDS, SULFUR, NI(NO<sub>3</sub>)<sub>2</sub>, 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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