

METCO PERKIN-ELMER -- METCO 73F-NS-1 -- 3439-01-380-6737

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

Product ID:METCO 73F-NS-1

MSDS Date:02/03/1993

FSC:3439

NIIN:01-380-6737

MSDS Number: BYCSD

=== 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:516-334-1

300;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:TUNGSTEN CARBIDE  
CAS:12070-12-1  
RTECS #:YO7250000  
Fraction by Wt: 82% %  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:5 MG W/M3  
ACGIH TLV:5 MG W/M3

Ingred Name:COBALT (SARA III)  
CAS:7440-48-4  
RTECS #:GF8750000  
Fraction by Wt: 17% %  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.05 MG/M3  
ACGIH TLV:0.05 MG/M3;DUST 9192

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

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Hazards Identification  
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LD50 LC50 Mixture:NOT GIVEN FOR PRODUCT AS A WHOLE.  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:INHALATION MAY CAUSE LUNG DAMAGE,  
PNEUMONIA, SIDEROSIS AND RESPIRATORY TRACT IRRITATION. SKIN AND EYE  
CONTACT MAY CAUSE IRRITATION.MAY CAUSE ALLERGIC DERMATITIS, ECZEMA.  
Explanation of Carcinogenicity:  
COBALT IS FOUND TO BE A CONFIRMED  
CARCINOGEN BY OTHER REFERENCE GUIDE SOURCES SUCH AS VAN NOSTRAND.  
Effects of Overexposure:EYE IRRITATION, SKIN IRRITATION, DERMATITIS,  
ECZEMA, LUNG DAMAGE, RESPIRATORY TRACT IRRITATION, COUGH, WHEEZING,  
SHORTNESS OF BREATH, BENIGN PNEUMOCONIOSIS.  
Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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First Aid Measures  
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First Aid:EYE: FLUSH WITH SUFFICIENT AMOUNTS OF WATER. IF IRRITATION

PERSISTS, CONSULT A PHYSICIAN. SKIN: WASH WITH SOAP AND WATER. INHALATION: EXPOSE TO FRESH AIR. CONSULT A PHYSICIAN IF IRRITATION OR RESPIRATORY DISTRESS PERSISTS. INGESTION: CONSULT A PHYSICIAN.

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

Flash Point:NONFLAMMABLE  
Lower Limits:NOT GIVEN  
Upper Limits:NOT GIVEN  
Extinguishing Media:USE CLASS D FIRE EXTINGUISHER.  
Fire Fighting Procedures:TREAT AS A METALLIC FIRE.  
Unusual Fire/Explosion Hazard:FINE METAL DUSTS  
ARE FLAMMABLE AND MAY  
EXPLODE WHEN EXPOSED TO HEAT, FLAME OR STRONG OXIDIZERS.

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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 METALLIC DUSTS SHOULD BE UTILIZED. WIPE THE AREA CLEAN. DO NOT USE WATER FOR CLEAN UP OPERATIONS. DO NOT SWEEP. AVOID GENERATING AIRBORNE DUST.  
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:STORE AWAY FROM INCOMPATIBLES. STORE PRODUCT CONTAINERS IN A WELL-VENTILATED, CLEAN, COOL, DRY AREA. MINIMIZE PHYSICAL DAMAGE.  
Other Precautions:AVOID INGESTION, INHALATION AND EXCESSIVE SKIN CONTACT. AVOID CONTACT OF POWDER WITH WATER AND OXIDIZERS.

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===== 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 THE THERMAL SPRAY PROCESS TO PROTECT THE OPERATOR FROM EXPOSURE TO DUST AND FUMES .  
Ventilation:PRODUCT SHOULD BE USED WITH THE APPROPRIATE LOCAL EXHAUST VENTILATION PROVIDED.  
Protective Gloves:ALUMINIZED GLOVES DURING PROCESSING  
Eye Protection:CHEMICAL WORKER'S GOGGLES  
Other Protective Equipment:HEARING PROTECTION, ALUMINIZED APRON, APPROPRIATE CLOTHING TO PREVENT SKIN CONTACT.  
Work Hygienic Practices:WASH HANDS

WASH 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:2200-2300F  
Vapor Pres:NOT GIVEN  
Vapor Density:NOT GIVEN  
Spec Gravity:4.5 - 6.3  
Viscosity:NOT GIVEN  
Evaporation Rate & Reference:NOT GIVEN  
Solubility in Water:NOT GIVEN  
Appearance and Odor:POWDER  
, NO ODOR  
Percent Volatiles by Volume:NIL

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

Stability Indicator/Materials to Avoid:YES  
OXIDIZERS, ACIDS, SULFUR, NI(NO<sub>3</sub>)<sub>2</sub>, COMBUSTIBLES.  
Stability Condition to Avoid:HEAT, FLAME, IGNITION SOURCES  
Hazardous Decomposition Products:OZONE AND NITRIC ACID ARE FORMED BY  
THE PLASMA FLAME.

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

Waste Disposal Methods:EMPTY PRODUCT CONTAINERS, PRODUCT WASTE AND  
CLEANING MEDIA SHOULD BE STORED AND DISPOSED OF ACCORDING TO THE  
APPROPRIATE LOCAL, STATE AND FEDERAL REGULATORY GUIDELINES.

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