

METCO -- 81VFNS -- 3439-01-027-9242

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

Product ID:81VFNS  
MSDS Date:08/15/1989  
FSC:3439  
NIIN:01-027-9242  
MSDS Number: BGFSH  
=== Responsible Party ===  
Company Name:METCO  
Address:1101 PROSPECT AVE  
City:WESTBURY  
State:NY  
ZIP:11590  
Country:US  
Info Phone Num:516-334-1300  
Emergency Phone Num:516-824-2315  
CAGE:FO880

==== Contractor Identification ====

Company Name:METCO  
Addre  
ss:1101 PROSPECT AVE  
City:WESTBURY  
State:NY  
ZIP:11590  
Phone:(516) 334-1300  
CAGE:FO880  
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

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

Ingred Name:GRAPHITE, SYNTHETIC  
CAS:7440-44-0  
RTECS #:FF5250100  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:15 MG/M3 TDUST  
ACGIH TLV:2 MG/M3 TDUST; 9293

Ingred Name:IRON OXIDE FUME

CAS:1309-37-1  
RTECS #:NO7400000  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:10 MG/M3 (FE)  
ACGIH TLV:5 MG/M3(FE),B2; 9293

Ingred Name:CHROMIUM (SARA III)  
CAS:7440-47-3  
RTECS #:GB4200000  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:1 MG/M3  
ACGIH TLV:0.5 MG/M3; 9293  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:MANGANESE (SARA III)  
CAS:7439-96-5  
RTECS #:OO9275000  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:(C) 5 MG/M3 DUST  
ACGIH TLV:5 MG/M3 DUST 9293

Ingred Name:NICKEL (SARA III)  
CAS:7440-02-0  
RTECS #  
:QR5950000  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3; 9293

Ingred Name:SILICON  
CAS:7440-21-3  
RTECS #:VW0400000  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:15 MG/M3 TDUST  
ACGIH TLV:10 MG/M3 TDUST; 9293

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

Routes of Entry: Inhalation:NO Skin:NO Ingestion:NO  
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO  
Health Hazards Acute and Chronic:ACUTE: INHALATION MAY CAUSE  
RESPIRATORY IRRITATION, PNEUMOC

ONIOSIS, LUNG FIROSOSIS. CONTACT MAY CAUSE SKIN DERMATITIS, CONJUCTIVITIS OF EYE; SKIN AND EYE IRRITATION. HEALTH HAZARS UNKNOWN IF SWALLOWED . CHRONIC: PROLONGED OR REPEATED EXPOSURE MAY CAUSE CANCER, DERMATITIS.

Explanation of Carcinogenicity:NICKEL IS LISTED CARCINOGEN TO MAN BY NIOSH; CHROMIUM ALLOYS ARE SUSPECTED CARCINOGENS BY IARC.

Effects of Overexposure:INHALED: COUGHING, SNEZZING, SHORTNESS OF BREATH. SKIN: REDNESS, ITCHING, DISCOMFORT. EYES: REDNESS, DISCOMFORT

. INGESTED: UNKNOWN, NONE GIVEN.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:INHALED: REMOVE TO FRESH AIR. EYES: FLUSH WITH LOTS OF WATER, HOLD LIDS OPEN. SEE DOCTOR. SKIN: WASH WITH SOAP AND WATER TO REMOVE POWDER. INGESTED: SEE DOCTOR.

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

Flash Point:NONE

Extinguishing Media:USE CLASS D FIRE EXTINGUISHER

Fire Fighti

ng Procedures:WEAR SELF-CONTAINED BREATHING APPARATUS. TREAT AS METALLIC FIRE.

Unusual Fire/Explosion Hazard:MODERATE FIRE HAZARD IN THE FORM OF DUST WHEN EXPOSED TO FLAME. NICKEL AND SILICON POWDERS ARE CLASSIFIED AS FLAMMABLE SOLIDS.

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

Spill Release Procedures:MATERIAL SPILLED ONTO THE FLOOR MAY BECOME AIRBORNE BY NORMAL PLANT ACTIVITY OR BY NORMAL HANDLING CONDITIONS. SWEEP THE AREA WITHOUT CREATING DUST.

PLACE THE CONTAMINATED POWDER IN CONTAINER FOR LATE R DISPOSAL.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:STORE AWAY FROM INCOMPATIBLES IN A COOL, DRY AREA.

Other Precautions:AVOID ORAL INGESTION AND EXCESSIVE SKIN CONTACT.

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

Respiratory Protection:A RESPIRATOR APPROVED BY NIOSH FOR DUST/FUMES/ MISTS SHOULD

BE WORN AT ALL TIMES DURING THE THERMAL SPRAY PROCESS TO PROTECT OPERATOR FROM DUST & FUMES. USE IN ACCORDANCE WITH 29 CFR 1910.134.

Ventilation: VENTILATION EQUIPMENT DESIGNED TO CREATE AN AIR VELOCITY OF 200 FPM.

Protective Gloves: ALUMINIZED GLOVES DURING PLASMA SPRAY

Eye Protection: SEE SUPPLEMENTAL DATA

Other Protective Equipment: WEAR ALUMINIZED APRON DURING PLASMA SPRAY PROCESS.

Work Hygienic Practices: WASH HANDS AFTER USE AND BEFORE EATING, DRINKING, OR SMOKING. LAUNDRY CONTAMINATED CLOTHES BEFORE REUSE.

Supplemental Safety and Health

MANUFACTURER RECOMMENDS FOLLOWING LENS SHADES: COMBUSTION SPRAYING SHADE #5, PLASMA SPRAYING UP TO 40 KW SHADE #9, 40 TO 60 KW SHADE #10 & GREATER THAN 60 KW SHADE #11. EAR PROTECTION MUST BE WORN WHEN THE OPERATOR IS SUBJECTED TO EXCESSIVE NOISE LEVEL.

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

HCC: N1

Melt/Freeze Pt: M.P/F.P Text: >2200F, >120

Spec Gravity: 2.8

Solubility in Water: NEGLIGIBLE

Appearance and Odor: METALLIC POWDER, NO ODOR

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

Stability Indicator/Materials to Avoid: YES

STRONG OXIDIZING AGENTS, STRONG MINERAL ACIDS, SULFUR, NICKEL NITRATE, WOOD, COMBUSTIBLES.

Stability Condition to Avoid: CONTACT WITH INCOMPATIBLE MATERIALS.

Hazardous Decomposition Products: OZONE AND NITRIC ACID ARE FORMED BY PLASMA FLAME (INDEPENDENT OF POWDER).

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

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

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