

PRAXAIR SURFACE TECHNOL INC SPECIALTY POWDERS BUSI -- NI-365-3 -- 3439-01-426-5241  
===== Product Identification =====

Product ID:NI-365-3

MSDS Date:01/27/1995

FSC:3439

NIIN:01-426-5241

MSDS Number: BZXWS

=== Responsible Party ===

Company Name:PRAXAIR SURFACE TECHNOL INC SPECIALTY POWDERS BUSI

Address:1555 MAIN STREET

City:INDIANAPOLIS

State:IN

ZIP:46224-3283

Country:US

Info Phone Num:317-240-2650

Emergency Phone Num:317-240-2209

Preparer's Name:MICHELLE ALEXANDER

CAGE:GO132

=== Contractor Identification ===

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CAGE:0FGH2

===== Composition/Information on Ingredients =

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Ingred Name:NICKEL (SUSPECTED ANIMAL/HUMAN CARCINOGEN BY IARC GROUP 2B,  
SUSPECTED CARCINOGEN BY NTP) \*96-2\*

CAS:7440-02-0

RTECS #:QR5950000

Fraction by Wt: 50-75%

Other REC Limits:1 MG/CUM

OSHA PEL:1 MG/CUM

ACGIH TLV:0.05 MG/CUM IC

Ingred Name:COBALT (ANIMAL CARCINOGEN BY IARC - GROUP 2B) \*96-2\*

CAS:7440-48-4

RTECS #:GF8750000

Fraction by Wt: 5-20%

Other REC Limits:0.05 PPM

OSHA PEL:0.1 MG/CUM

ACGIH TLV:0.05 MG/CUM

Ingred Name:CHROMIUM METAL, CHROMIUM, CHROME (KNOWN CAR  
CINOGEN BY NTP;

IARC CARC - GROUP 3) \*96-2\*

CAS:7440-47-3

RTECS #:GB4200000

Fraction by Wt: 5-20%

ACGIH TLV:0.5 MG/CUM

EPA Rpt Qty:1 LB

DOT Rpt Qty:1 LB

Ingred Name:TANTALUM

CAS:7440-25-7

RTECS #:WW5505000

Fraction by Wt: 5-20%

OSHA PEL:5 MG/CUM

ACGIH TLV:5 MG/CUM

Ingred Name:ALUMINUM \*96-2\*

CAS:7429-90-5

RTECS #:BD0330000

Fraction by Wt: 5-20%

OSHA PEL:15 MG/CUM

ACGIH TLV:10 MG/CUM (DUST)

Ingred Name:TUNGSTEN (INSOLUBLE), WOLFRAM \*96-2\*

CAS:7440-33-7

RTECS #:YO7175000

Fraction by Wt:

1-5%  
ACGIH TLV:5 MG/CUM

Ingred Name:RHENIUM  
CAS:7440-15-5  
Fraction by Wt: 1-5%

Ingred Name:MOLYBDENUM (SOLUBLE COMPOUND)  
CAS:7439-98-7  
RTECS #:QA4680000  
Fraction by Wt: 1-5%  
OSHA PEL:5 MG/CUM  
ACGIH TLV:5 MG/CUM

Ingred Name:HAFNIUM  
CAS:7440-58-6  
RTECS #:MG4600000  
Fraction by Wt: 1-5%  
OSHA PEL:0.5 MG/CUM  
ACGIH TLV:0.5 MG/CUM

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

Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES  
Reports of Carcinogenicity:NTP:YES IARC:Y  
ES OSHA:NO

Health Hazards Acute and Chronic:SKIN: ALLERGIC DERMATITIS W/PAPULAR  
FORMATION IN SUSCEPTABLE INDIVIDUALS. EYES: IRRITATION & REDNESS OF  
THE CONJUNCTIVA, CORNEAL DAMAGE BY OVEREXPOSURE. INHALATION:  
RESPIRATORY TRACT IRRITANT. BURNING SENSATION, CNS DEPRESSION,  
INTERSTITIAL PNEUMONITIS & SENSITIZATION. INGESTION: CNS DEPRESSION  
& BURNING SENSATION.(SUP

Explanation of Carcinogenicity:SEE INGREDIENTS.

Effects of Overexposure:REDNESS, DRY/SCALY SKIN, FEVER, IRRITATI  
ON,

NAUSEA, ABDOMINAL PAIN, VOMITING, DIARRHEA, BURNING SENSATION,  
CHEST PAIN, POLYCYTHEMIA, HYPERPLASIA OF THE THYROID GLAND,  
LESIONS, ITCHING, SORENESS

Medical Cond Aggravated by Exposure:ASTHMA & INFLAMMATORY/FIBROTIC  
PULMONARY DISEASE. EXISTING DERMATITIS.

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

First Aid:INGESTION: GIVE 2 GLASSES OF MILK/WATER. INDUCE VOMITING IF  
CONSCIOUS. SKIN: WASH THOROUGHLY W/SOAP & WATER. INHALATION: REMOVE  
TO FRE

SH AIR. GIVE CPR/OXYGEN IF NECESSARY. EYES: FLUSH THOROUGHLY  
W/PLE NTY OF WATER. OBTAIN MEDICAL ATTENTION IN ALL CASES. NO  
SPECIFIC ANTIDOTE. TREATMENT SHOULD BE DIRECTED AT THE CONTROL OF  
SYMPTOMS & THE CLINICAL CONDITION.

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Fire Fighting Measures  
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Flash Point:NONE  
Lower Limits:NONE  
Upper Limits:0  
Extinguishing Media:DRY POWDER METAL EXTINGUISHING MATERIAL FOR METAL  
FIRES. APPROPRIATE EXTINGUISHER FOR COMBUSTIBLE MATERIALS  
Fire Fighti  
ng Procedures:USE NFPA51 OXYGEN FUEL GAS SYSTEMS FOR WELDING  
& CUTTING. NFPA58 STANDARD FOR THE STORAGE & HANDLING OF LIQUIFIED  
PETROLEUM GASES.  
Unusual Fire/Explosion Hazard:AIRBORNE DUST PARTICLES & ACCUMULATION  
SHOULD BE TREATED AS EXPLOSIVES.

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Accidental Release Measures  
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Spill Release Procedures:WEAR PROTECTIVE EQUIPMENT TO PROTECT AGAINST  
HAZARDS & DISPOSE OF PER WASTE DISPOSAL METHOD.

=====  
Handling and Storage  
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Other Precautions:ELECTRICITY CAN CAUSE FATAL SHOCK. DON'T TOUCH LIVE  
ELECTRICAL PARTS. ARC RAYS CAN BURN EYES/SKIN. FUMES/GAS/DUST CAN  
HARM YOUR HEALTH. AREA & SPARKS DURING SPRAYING CAN BE A SOURCE OF  
IGNITION OF COM BUSTIBLE MATERIALS. PREVENT FIRES.

=====  
Exposure Controls/Personal Protection  
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Respiratory Protection:IF THERE IS DUSTINESS, WEAR RESPIRATOR SELECTED  
PER OSHA 1910.134, & OSHA 29 CFR 1910.252 & ANSI Z49.1.  
Ventilation:  
LOCAL DUST PICK UP & VENTILATION RECOMMENDED  
Protective Gloves:NOT REQUIRED  
Eye Protection:GOGGLES PER OSHA 1910.13.  
Other Protective Equipment:ANSI Z49.1, ANSI Z87.1, ANSI Z88, FOR  
HELMETS, FACE SHIELDS & GOGGLES.  
Supplemental Safety and Health  
OVEREXPOSURE MAY CAUSE SENSITIZATION IN SUSCEPTABLE INDIVIDUALS. CAN  
CAUSE POLYCYTHEMIA, HYPERPLASIA OF THE THYROID GLAND & DAMAGE TO  
THE ALPHA CELLS OF THE PANCREAS. REPEATED INHALATION CAN CAUSE EMP  
HYSEMA/PULMONARY FIBROTIC DISEASE.

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Physical/Chemical Properties  
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Boiling Pt:B.P. Text:NONE

Vapor Density:>1

Appearance and Odor:GRAY POWDER

Percent Volatiles by Volume:0

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Stability and Reactivity Data  
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Stability Indicator/Materials to Avoid:YES

Stability Condition to Avoid:ACCUMULATION OF DUST PARTICLES, ARC RAYS,  
SPARKS & OTHER IGNITION SOURCES

Hazardous Decomposition Products:BY THERMAL SPRAYING: OXIDES,  
SUB-OXIDES & COMPLEX OXIDES OF MATERIALS

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Disposal Considerations  
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Waste Disposal Methods:DISPOSE OF IN ACCORDANCE W/LOCAL, STATE &  
FEDERAL REGULATIONS.

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