Product ID:NI-115, WELDING POWDER MSDS Date:07/13/1995 FSC:3439 NIIN:01-426-3168 Status Code:A MSDS Number: CJQHQ === Responsible Party === Company Name: PRAXAIR SURFACE TECHNOLOGIES INC 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 Resp. Party Other MSDS Num.: PRODUCT CODE:036015-05 Preparer's Name: MICHELLE ALEXANDER Chemtrec Ind/Phone:(800)424-9300 CAGE:0FGH2 === Contractor Identification === Company Name: PRAXAIR SURFACE TECHNOLOGIES INC Address:1555 MAIN STREET Box:City:INDIANAPOLIS State:IN ZIP:46224-3283 Country:US Phone:317-240-2650 CAGE:0FGH2 Company Name: STARGHILL TECHNOLOGIES CORP Address:3850 OAKMAN BLVD Box:City:DETROIT State:MI ZIP:48204-1119 Country:US Phone:313-933-4141 Co

ntract Num:SP0490-95-D-4037 CAGE:0VYG8

Ingred Name:NICKEL CAS:7440-02-0 RTECS #:QR5950000 > Wt:75. OSHA PEL:1 MG/M3 ACGIH TLV:1 MG/M3

Ingred Name:CARBON CAS:7440-44-0 RTECS #:FF5250000 Minumum % Wt:5. Maxumum % Wt:20. OSHA PEL:10 MG/M3 ACGIH TLV:2.5 MG/M3

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES Reports of Carcinogenicity:NTP:YES IAR C:YES OSHA:YES Health Hazards Acute and Chronic:ACUTE: EYES: MAY CAUSE IRRITATION.

SKIN CONTACT:MAY CAUSE ALLERGIC DERMATITIS, PAPULAR FORMATION, ULCERS, DRY AND SCALY SKIN, FEVER. SKIN ABSORPTION: NO EVIDENCE OF ADVERSE EFFECTS. INHALATION: MAY CA USE RESPIRATORY TRACT IRRITATION, WITH CHEST PAIN, VOMITNG, DIARRHEA, BURNING SENSATION, AND CENTRAL NERVOUS SYSTEM DEPRESSION. MAY ALSO CAUSE INTERSTITIAL PNEUMONITIS AND SENSITIZATION OF THE RESPIRA TORY TRACT. INGESTION:

MAY CAUSE NAUSEA, ABDOMINAL PAIN, VOMITING, DIARRHEA, CENTRAL NERVOUS SYSTEM DEPRESSION, AND BURNING SENSATION. CHRONIC: EYES: DAMAGE. SKIN: AFFECT WHOLE BODY WITH LESIONS, SORE NESS, ITCHING. INHALATION: EMPHYSEMA.

Explanation of Carcinogenicity:NICKEL HAS BEEN DETERMINED TO CAUSE CANCER IN EXPERMENTAL ANIMALS (IARC, NTP). NICKEL IS LISTED AS A PROBABLE HUMAN CARCINOGEN.

Effects of Overexposure:EYES: IRRITATION, REDNESS, EXCESS REDNESS OF CONJUNCTIVA, CORNEAL DAMAGE.

SKIN: DERMATITIS, REDNESS, PAPULAR

FORMATION, ULCERS, DRY AND SCALY SKIN, FEVER. INHALATION: RESPIRATORY TRACT IRRITATION, CHE ST PAIN, DIARRHEA, BURNING SENSATION, CNS DEPRESSION, INTERSTITIAL PNEUMONITIS, EMPHYSEMA, SENSITIZATION OF RESPIRATORY TRACT. INGESTION: NAUSEA, ABDOMINAL PAIN, VOMITING, DIARRHEA, CENTRAL NERVOUS SY STEM DEPRESSION, BURNING SENSATION.CHRONIC ECZEMA/NEURODERMATIS FROM NICKEL DOES REQUIRE CONTINUOUS METAL CONTACT.

Medical Cond Aggravated by Ex

posure:BREATHING OF DUST MAY AGGRAVATE

ASTHMA AND INFLAMMATORY OR FIBROTIC PULMONARY DISEASE. MAY ALSO AGGRAVATE AN EXISTING DERMATITIS.

First Aid:EYES: FLUSH WITH PENTY OF WATER. IF DISCOMFORT PERSISTS, GET MEDICAL ATTENTION, PREFERABLY AN OPTALMOLOGIST. SKIN: WASH THOROUGHLY WITH SOAP AND WATER. INHALATION: REMOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. OXYGEN MAY BE GIVEN IF NE

CESSARY. CALL A PHYSICIAN. INGESTION: GIVE AT LEAST 2 GLASSES OF MILK OR WATER. INDUCE VOMITING, UNLESS PATIENT IS UNCONSCIOUS. CALL A PHYSICIA N. NOTES TO PHYSICIAN: THE HAZARDS OF THIS MATERIAL ARE MAINLY DUE TO ITS SENSITIZING AND MILD IRRITATING PROPERTIES. THERE IS NO SPECIFIC ANTIDOTE.

Flash Point:NONE

Upper Limits: 0.00%

Extinguishing Media:USE DRY POWDER METAL EXTINGUISHING MATERIAL TO EXTINGUISH ME

TAL FIRES. USE APPROPRIATE EXTINGUISHER TO EXTINGUISH

MATERIALS THAT MAY BE IGNITED BY THE THERMAL SPRAY FLAME. Fire Fighting Procedures:COMPLY WITH ANSI Z49.1 SAFETY IN WELDING AND CUTTING, NFPA51B STANDARD FOR FIRE PREVENTION IN USE OF CUTTING AND WELDING PROCESSES. NFPA51 OXYGEN-FUEL GAS SYSTEMS FOR WELDING AND CUTTING, AND NFPA58 S TANDARD FOR THE STORAGE AND HANDLING

OFLIQUIDIFIED PETROLEUM GASES.

Unusual Fire/Explosion Hazard: AIRBORNE DUST PARTICLES, ESPECIALLY METAL

DUST, AND ACCUMULATION OF SUCH SHOULD BE TREATED AS EXPLOSIVES. TO MINIMIZE DANGER FROM DUST EXPLOSIONS, ADEQUATE VENTILATION SHOULD BE PROVIDED TO SPARY BOOT H IN ACCORDANCE WITH AMERICAN WELDING SOCIETY PUBLICATION AWSC2.1-73, AND ACGIH PUBLICATION "INDUSTRIAL VENTILATION".

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

Handling and Storage Precautions:CAUTION: WHEN THERMAL SPRAYING;
ELECTRICITY CAN CAUSE FATAL SHOCK. ARC RAYS CAN BURN EYES AND SKIN.
WEAR RECOMMENDED EYE AND BODY PROTECTION. FUMES, GAS, AND DUST CAN HARM YOUR HEALTH. PROVIDE ENOUGH VENTILATION AND WEAR RESPIRATOR.
Other Precautions:ALWAYS SPRAY WITH ENOUGH VENTILATION. SPARKS DURING SPRAYING CAN BE A SOURCE OF IGNITION OF COMBUSTIBLE MATERIALS.
PREVENT FIRES. REFER

TO NFPA 51B "CUTTING AND WELDING PROCESSES".

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

Respiratory Protection: DEPENDS UPON SPECIFIC USE, CONDITION, AND LOCATION. IF THERE IS DUSTINESS, WEAR RESPIRATOR SELECTED PER OSHA 1910.134, AND OSHA 29 CFR 1910.252 AND ANSI Z49.1.
Ventilation: LOCAL DUST PICK UP AND VENTILATION RECOMMENDED.
Protective Gloves: NOT REQUIRED.
Eye Protection: WHEN DUSTY USE GOGGLES PER OSHA 1910.13.
Other Protective Equipment: SEE ANSI Z49.1, AN
SI Z87.1, ANSI Z88.2 FOR HELMETS, FACE SHIELDS AND GOGGLES.
Work Hygienic Practices: NONE PROVIDED BY MFR.
Supplemental Safety and Health

NONE PROVIDED BY MFR.

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HCC:N1 Boiling Pt:B.P. Text:NONE Spec Gravity:2.4 (WATER = 1) Evaporation Rate & amp; Reference:NON VOLATILE Appearance and Odor:GRAY POWDER. Percent Volatiles by Volume:0

Stability Indicator/Mater

ials to Avoid:YES NONE KNOWN. Stability Condition to Avoid:NONE KNOWN. Hazardous Decomposition Products: WHEN THERMAL SPRAYING, DECOMPOSITION PRODUCTS VARY WITH CONDITIONS. DECOMPOSITION PRODUCTS OF NORMAL OPERATION FROM THIS SPRAY POWDER INCLUDE OXIDES, SUB-OXIDES, COMPLEX OXIDES OF THE POWDERED METALS. Conditions to Avoid Polymerization: WILL NOT OCCUR. Waste Disposal Methods: DISPOSE OF WASTE PER LOCAL, STATE, AND **FEDERAL REGULATIONS.** Transport Information:NOT REGULATED. PER MSDS: SHIPPING NAME: METAL ALLOY POWDER NOI ITEM 136500 SUB 1, NO UN NUMBER. SARA Title III Information: SECTION 313: THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT OF 1986 AND OF CFR 372: CAS # 7440-02-0 , NICKEL, >75 %. Federal Regulatory Information: ALL INGREDIENTS IN THIS PRODUCT ARE LISTED IN THE T.S.C.A. INVENTORY. THE FOLLOWING INGREDIENTS ARE ON THE COMMUNITY RIGHT-TO-KNOW : CAS # 7440-02-0, NICKEL. State Regulatory Information: PROP 65 (CARCINOGEN): THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER: CAS # 7440-02-0, NICKEL. PROP 65 (TETRATOGENIC): THIS PRODUCT CONTAINS NO CHEMICAL INGREDIENT K NOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. PROP 65 (BOTH CARCINOGEN AND TETRATOGENIC): THIS PRODUCT DOE NOT CONTAIN A CHEMICAL INGREDIENT KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BOTH CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. Disclaimer (provided with this information by the compiling agencies):

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