

PRAXAIR SURFACE TECHNOLOGIES INC -- NI-114, WELDING POWDER -- 3439-01-426-3164  
===== Product Identification =====

Product ID:NI-114, WELDING POWDER  
MSDS Date:06/22/1994  
FSC:3439  
NIIN:01-426-3164  
Status Code:A  
MSDS Number: CJQGW  
=== 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:036014-04  
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  
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Composition/Information on Ingredients  
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Ingred Name:NICKEL  
CAS:7440-02-0  
RTECS #:QR5950000  
Minimum % Wt:50.  
Maximum % Wt:75.  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3

Ingred Name:CARBON  
CAS:7440-44-0  
RTECS #:FF5250000  
Minimum % Wt:20.  
Maximum % Wt:50.  
OSHA PEL:10 MG/M3  
ACGIH TLV:2.5 MG/M3

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Hazards Identification  
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Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcin

ogenicity:NTP:YES IARC: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 CAUSE RESPIRATORY TRACT  
IRRITATION, WITH CHEST PAIN, VOMITING, 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, SORENESS, ITCHING.  
INHALATION: EMPHYSEMA.

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

Effects of Overexposure:EYES: IRRITATION, REDNESS, EXCESS REDNESS OF  
CONJUNCTIVA

NCTIVA, 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.

Medic  
al Cond Aggravated by Exposure: BREATHING OF DUST MAY AGGRAVATE ASTHMA AND INFLAMMATORY OR FIBROTIC PULMONARY DISEASE. MAY ALSO AGGRAVATE AN EXISTING DERMATITIS.

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

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. OXYGE  
N MAY BE GIVEN  
IF NECESSARY. 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.

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

Flash Point: NONE  
Upper Limits: 0.00%  
Extinguishing Media: USE DRY POWDER METAL EXTINGUISHING MATER  
IAL TO  
EXTINGUISH METAL 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 OF LIQUIDIFIED PETROLEUM GASES.  
Unusual Fire/Explosion Hazard: AIRBORNE DUST PARTI

CLES, 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".

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

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

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

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 Equi

pment:SEE ANSI Z49.1, ANSI 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.

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

HCC:N1

Boiling Pt:B.P. Text:NONE

Spec Gravity:1.4 (WATER = 1)

Evaporation Rate & Reference:NON VOLATILE

Appearance and Odor:DUSTY YELLOW GRAY POWDER.

Percent Volatiles by Volume:0

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

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Stability Indicator/Materials 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.

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

Waste Disposal Methods: D  
ISOPE OF WASTE PER LOCAL, STATE, AND FEDERAL REGULATIONS.

===== MSDS Transport Information =====

Transport Information: NOT REGULATED. PER MSDS: SHIPPING NAME: METAL ALLOY POWDER NOI ITEM 136500 SUB 1. NO UN NUMBER.

===== Regulatory Information =====

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,