

NATIONAL WELDING ALLOYS, INC. -- STAINLESS STEEL BARE WELDING WIRE;347 HISIL --  
3439-00-004-4547

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

Product ID:STAINLESS STEEL BARE WELDING WIRE;347 HISIL

MSDS Date:08/01/1990

FSC:3439

NIIN:00-004-4547

MSDS Number: BJPBH

=== Responsible Party ===

Company Name:NATIONAL WELDING ALLOYS, INC.

Address:1600 SOUTH CANAL STREET

City:PITTSBURGH

State:PA

ZIP:15215

Country:US

Info Phone Num:412-781-4255

Emergency Phone Num:412-781-4255

CAGE:0ACE2

=== Contractor Identification ===

Company Name:NATIONAL WELDING ALLOYS INC

Address:1600 SOUTH CANAL STREET

Box:City:PITTSBURGH

State:PA

ZIP:15215-2624

Country:US

Phone:412-781-4255

CAGE:0ACE2

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

Ingred Name:GRAPHITE, SYNTHETIC

CAS:7440-44-0

RTECS #:FF5250100

Fraction by Wt: 0.08%

Other REC Limits:NONE SPECIFIED

OSHA PEL:15 MG/M3 TDUST

ACGIH TLV:2 MG/M3 TDUS

T; 9293

Ingred Name:CHROMIUM (SARA III)

CAS:7440-47-3

RTECS #:GB4200000

Fraction by Wt: 19-21.5%

Other REC Limits:NONE SPECIFIED

OSHA PEL:1 MG/M3

ACGIH TLV:0.5 MG/M3; 9192

EPA Rpt Qty:1 LB

DOT Rpt Qty:1 LB

Ingred Name:NICKEL (SARA III)

CAS:7440-02-0

RTECS #:QR5950000

Fraction by Wt: 9-11%

Other REC Limits:NONE SPECIFIED

OSHA PEL:1 MG/M3

ACGIH TLV:1 MG/M3; 9192

Ingred Name:MOLYBDENUM

CAS:7439-98-7

RTECS #:QA4680000

Fraction by Wt: 0.75%

Other REC Limits:NONE SPECIFIED

OSHA PEL:15 MG/M3 TDUST

ACGIH TLV:10 MG/M3; 9293

Ingred Name:MANGANESE (SARA III)

CAS:7439-96-5

RTECS #:OO9275000

Fraction by Wt: 1-2.5%

Other REC Limits:NONE SPECIFIED

OSHA PEL:(C) 5 MG/M3 DUST

ACGIH TLV:5 MG/M3 DUST 9293

Ingred Name:SILICA, CRYSTALLINE - FUSED

CAS:60676-86-0

RTECS #:VV7328000

Fraction by Wt: 0.3-1.0%

Other REC Limits:NONE SPECIFIED

OSHA PEL:SEE TABLE Z3

ACGIH TLV:0.1 MG/M3 RDUST;9293

Ingred Name:COPPER (SARA III)

CAS:7440-50-8

RTECS #:GL5325000

Fraction by Wt: 0.75%

Other REC Limits:NONE SPECIF

IED  
OSHA PEL:0.1MG/M3 FUME/1 DUST  
ACGIH TLV:0.2MG/M3 FUME; 9192  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:OTHER COMPONENTS (CB+TA)  
Fraction by Wt: 1.00%  
Other REC Limits:NONE SPECIFIED

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

LD50 LC50 Mixture:UNCLASSIFIED WELDING FUMES=5MG/M3 PEL

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:SHORT TERM EXPOSURE TO WELDING FUMES,

GASES OR DUST MAY RESULT IN DISCOMFORT SUCH AS DIZZINESS, NAUSEA, FEVER, DRYNESS AND/OR IRRITATION OF NOSE, THROAT AND EYES. SKIN SENSITIVITY MAY ALSO BE NOTED. A CUTE EXPOSURE FROM SOME TOXIC GASES MAY CAUSE PULMONARY EDEMA, ASPHYXIATION AND EXCESSIVE EXPOSURE CAN BE FATAL.

Explanation of Carcinogenicity:NICKEL AND CHROMIUM ARE CONSIDERED POSSIBLE CARCINOGENS UNDER OSHA. RESPIRATORY CANCER FROM WELDING IS UNCONFIRMED.

Effects of Overexposure:EXPOSURE TO WELDING FUMES MAY RESULT IN

DISCOMFORT SUCH AS DIZZINESS, NAUSEA, FEVER, DRYNESS AND/OR IRRITATION OF NOSE, THROAT AND EYES. SKIN SENSITIVITY MAY ALSO BE NOTED. WATERY EYES, HEADACHE, BREATHING DIFFICULTY, FREQUENT COUGHING AND/OR CHEST PAINS MAY OCCURE FROM ACUTE EXPOSURE. TOXIC GASES CAN BE FATAL.

Medical Cond Aggravated by Exposure:SOME WORKERS MAY BE AFFECTED BY A PRE-EXISTING CONDITION OR OTHER OCCUPATIONAL ILLNESS BECAUSE OF THE WIDE VARIATION IN INDIVIDUAL SUSCEPTIBILITIES.

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

First Aid:IN CASE OF ELECTRICAL SHOCK, TURN OFF POWER PRIOR TO REMOVAL FROM EXPOSURE AREA AND ADMINISTRATION OF FIRST AID. REMOVE FROM EXPOSURE AREA AND CALL FOR MEDICAL AID. ADMINISTER OXYGEN IF BREATHING IS DIFFICULT. IF NOT BREATHING, BEGIN ARTIFICIAL RESPIRATION. IF NO DETECTABLE PULSE, BEGIN EXTERNAL HEART MASSAGE. EMPLOY FIRST AID TECHNIQUES RECOMMENDED BY THE AMERICAN RED CROSS.

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Fire Fighting Measures  
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Flash Point:NONE

Extinguishing Media:USE ANY MEDIA SUITABLE FOR SURROUNDING FIRE LIKE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL.

Fire Fighting Procedures:FIRE FIGHTERS SHOULD USE NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIPMENT WHEN FIGHTING CHEMICAL FIRE. USE WATER SPRAY TO COOL NEARBY CONTAINERS EXPOSED TO FIRE.

Unusual Fire/Explosion Hazard:NONE EXPECTED;FIRE OR EXCESSIVE HEAT MAY CAUSE PRODUCTION OF HAZARDOUS DE COMPOSITION PRODUCTS.

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Accidental Release Measures  
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Spill Release Procedures:CLEAN UP ANY GRINDING DUST OR WASTE RESIDUES AND PLACE IN SUITABLE DOT APPROVED CONTAINERS AND DISPOSE OF IN FULL COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. AVOID INHALATION AND SKIN EXPOSURE.

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Handling and Storage  
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Handling and Storage Precautions:WEAR GLOVES AND FLAME RETARDANT CLOTHING WHEN CUTTING, GRINDING OR WELDING. DO NOT EXPOSE SKIN TO RADIATION WHEN HOT CUTTING OR WELDING.

Other Precautions:PROVIDE PROTECTIVE SCREENS TO SHIELD OTHERS. WHEN ELECTRODES AND FLUXES ARE CONSUMED, THE FUME AND GAS DECOMPOSITION PRODUCTS GENERATED ARE DIFFERENT IN FORM FROM THE INGREDIENTS LISTED. NEW COMPOUNDS NOT IN THE ELECTRODES MAY FORM.

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Exposure Controls/Personal Protection  
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Respiratory Protection:USE WELD FUME RESPIRATOR OR AIR SUPPLIED RESPIRATOR WHEN CUTTING, GRINDING OR WELDING IN A CONFINED SPACE OR WHERE LOCAL EXHAUST OR GENERAL VENTILATION DOES NOT KEEP EXPOSURE BELOW RECOMMENDED LIMITS. USE ONLY NIOSH APPROVED RESPIRATORS.

Ventilation:USE ENOUGH VENTILATION WHEN CUTTING, GRINDING OR WELDING TO KEEP THE DUST, FUMES & GASES FROM THE WORKERS BREATHING ZONE

Protective Gloves:WELDERS LEATHER GLOVES

Eye Protection:OSHA APPROVED GOGGLES/FACE SHIELD W/LENS

Other Protective Equipment:FLAME RETARDANT CLOTHING WHEN CUTTING, GRINDING

NG OR WELDING. DO NOT EXPOSE SKIN TO RADIATION WHEN HOT CUTTING OR WELDING.

Work Hygienic Practices:WASH THOROUGHLY BEFORE EATING OR SMOKING. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.

Supplemental Safety and Health

WELDING AND HOT CUTTING FUMES & GASES CANNOT BE CLASSIFIED SIMPLY. THEIR COMPOSITION AND QUANTITY ARE DEPENDENT ON THE METAL BEING WELDED, THE PROCEDURES, PROCESSES AND THE TYPE OF WIRE OR ELECTRODES USED. OTHER INFLUENCING FACTORS ARE THE PRESENCE OF CONTAMINANTS.

CHLORINATED SOLVENTS MAY DECOMPOSE TO TOXIC GASES.

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

HCC:N1

Solubility in Water:INSOLUBLE

Appearance and Odor:SOLID WIRE OR ROD,GREY TO SILVER IN COLOR

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

Stability Indicator/Materials to Avoid:YES

MINERAL ACIDS OR OXIDIZING AGENTS

Stability Condition to Avoid:NONE NOTED

Hazardous Decomposition Products:WELDING AND CUTTING OPERATION MAY INCLUDE OXIDES OF THE METALS, CHROMATES, FLUORIDES, COMPLEX METALLICS, AND OZONE.

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

Waste Disposal Methods:DISPOSE I/A/W FEDERAL, STATE & LOCAL REGULATIONS

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