

NATIONAL WELDING ALLOYS, INC. -- BARE WIRE # 4043 -- 3439-00-178-8590

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Product Identification  
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Product ID: BARE WIRE # 4043

MSDS Date: 09/01/1995

FSC: 3439

NIIN: 00-178-8590

MSDS Number: BHXXD

=== 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: 412-78

1-4255

CAGE: 0ACE2

=== Contractor Identification ===

Company Name: NATIONAL TORCH TIP CO INC.

Address: 50 FREEPORT RD

City: PITTSBURGH

State: PA

ZIP: 15215-2906

Country: US

Phone: 412-781-4200

CAGE: 93009

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

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Composition/Information on Ingredients  
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Ingred Name: ALUMINUM (SARA III)

CAS: 7429-90-5

RTECS #: BD0330000

Fraction b

y Wt: REMAIDR  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:15MG/M3 DUST/5 FUME  
ACGIH TLV:10MG/M3 DUST; 9192

Ingred Name:COPPER (SARA III)  
CAS:7440-50-8  
RTECS #:GL5325000  
Fraction by Wt: 0.8%  
Other REC Limits:NONE SPECIFIED  
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:IRON  
CAS:7439-89-6  
RTECS #:NO4565500  
Fraction by Wt: 0.8%  
Other REC Limits:NONE SPECIFIED

Ingred Name:MAGNESIUM  
CAS:7439-95-4  
RTECS #:OM2100000  
Fraction by Wt: 0.0  
5%  
Other REC Limits:NONE SPECIFIED

Ingred Name:MANGANESE (SARA III)  
CAS:7439-96-5  
RTECS #:OO9275000  
Fraction by Wt: 0.05%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:(C) 5 MG/M3 DUST  
ACGIH TLV:5 MG/M3 DUST 9293

Ingred Name:SILICON  
CAS:7440-21-3  
RTECS #:VW0400000  
Fraction by Wt: 4.5-6.0%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:15 MG/M3 TDUST  
ACGIH TLV:10 MG/M3 TDUST; 9293

Ingred Name:TITANIUM, METAL  
CAS:7440-32-6  
RTECS #:XR1700000  
Fraction by Wt: 0.20%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:1

0 MG/M3 TIO2 DUST  
ACGIH TLV:10 MG/M3 TIO2 DUST

Ingred Name:ZINC (SARA III)  
CAS:7440-66-6  
RTECS #:ZG8600000  
Fraction by Wt: 0.10%  
OSHA PEL:10 MG ZNO/M3  
ACGIH TLV:10 MG ZNO/M3; 9192  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

Ingred Name:OTHER COMPONENTS  
Fraction by Wt: 0.05%  
Other REC Limits:NONE SPECIFIED

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

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

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

Reports o

f Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:HAZARD RESULTS FROM WELDING PROCESS.

NO HAZARD EXPECTED FROM SHIPPING/STORAGE. SHORT TERM EXPOSURE TO WELDING FUMES, GASES OR DUST MAY RESULT IN DISCOMFORT, DIZZINESS, NAUSEA AND DRYNESS OR IRRITATION OF THE THROAT. LONG TERM EXPOSURE TO WELDING FUMES MAY CONTRIBUTE TO PULMONARY IRRITATION OR PNEUMOCONIOSIS.

Explanation of Carcinogenicity:NICKEL AND CHROMIUM ARE CONSIDERED POSSIBLE CARCINOGENS U

NDER 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, BREA THING DIFFICULTY, FREQUENT COUGHING AND/OR CHEST PAINS MAY OCCURE FROM ACUTE EXPOSURE. TOXIC GASES CAN BE FATAL.

Medical Cond Aggravated by Exposure:INDIVIDUALS WITH IMPAIRED PULMONARY FUN

CTION OR ILLNESS MAY HAVE SYMPTOMS EXACERBATED BY IRRITANTS  
CONTAINED IN WELDING FUMES.

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First Aid Measures  
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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

Lower Limits:NOT GIVEN

Upper Limits:NOT GIVEN

Extinguishing Media:USE SUITABLE MEDIA FOR SURROUNDING FIRES.

Fire Fighting Procedures:FIRE FIGHTERS SHOULD USE NIOSH APPROVED SCBA &  
FULL PROTECTIVE EQUIPMENT WHEN FIGHTING CHEMICAL FIRE.

Unusual Fire/Explosion Hazard:IF THIS MATERIAL IS REDUCED TO POWDER  
FORM, CAUTION MUST BE USED TO PREVENT FIRE OR EXPLOSION. TO  
EXTINGUISH A METAL POWDER FIRE, USE CLASS "D" EXTINGUISHER.

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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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Respirator

Eye 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 OR WELDING. DO NOT EXPOSE SKIN TO RADIATION WHEN HOT  
CUTTING OR WELDING.  
Work Hygienic Practices:WASH THOROUGHLY BEFORE EATING OR SMOKING.  
LAUNDRY 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  
Boiling Pt:B.P. Text:NOT GIVEN  
Melt/Freeze Pt:M.P/F.P Text:NOT GIVEN  
Vapor Pres:NOT GIVEN  
Vapor Density:NOT GIVEN  
Spec Gravity:NOT GIVEN  
Evaporation Rate & Reference:NOT GIVEN  
Solubility in Water:NIL  
Appearance and Odor:SOLID WIRE OR ROD,GREY TO SILVER IN COLOR

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

Stability Indicator/Materials to Avoid:YES  
STRONG OXIDIZING AGENTS AND MINERAL ACIDS.  
Stability Condition to Avoid:NONE SPECIFIED BY MANUFACTURER.  
Hazardous Decomposition Products:WELDING AND CUTTING OPERATION MAY  
INCLUDE OXIDES OF THE METALS, CHROMATES, FLUORIDES, COMPLEX  
METALLICS, AND OZONE.

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

Waste Disposal Methods:PREVENT WASTE FROM CONTAMINATING SURROUNDING  
ENVIRONMENT

ENT. DISCARD ANY PRODUCT, RESIDUE, DISPOSAL CONTAINER OR  
LINER IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

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