

NATIONAL WELDING ALLOYS, INC. -- NAVAL BRONZE (RBCUZN-A) -- 3439-00-262-7565  
===== Product Identification =====

Product ID:NAVAL BRONZE (RBCUZN-A)  
MSDS Date:08/01/1990  
FSC:3439  
NIIN:00-262-7565  
MSDS Number: BJMXQ  
=== 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 Ph  
one 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:COPPER (SARA III)  
CAS:7440-50-8  
RTECS #:GL5325000  
Fraction by Wt: 57-61%  
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 Rp

t Qty:5000 LBS

Ingred Name:ZINC (SARA III)  
CAS:7440-66-6  
RTECS #:ZG8600000  
Fraction by Wt: 38-43%  
Other REC Limits:NONE SPECIFIED  
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:ALUMINUM (SARA III)  
CAS:7429-90-5  
RTECS #:BD0330000  
Fraction by Wt: 0.01%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:15MG/M3 DUST/5 FUME  
ACGIH TLV:10MG/M3 DUST; 9192

Ingred Name:LEAD (SARA III)  
CAS:7439-92-1  
RTECS #:OF7525000  
Fraction by Wt: 0.05%  
Other REC Lim  
its:NONE SPECIFIED  
OSHA PEL:0.05 MG/M3;1910.1025  
ACGIH TLV:0.15 MG/M3;DUST 9192  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:TIN  
CAS:7440-31-5  
RTECS #:XP7320000  
Fraction by Wt: 0.25-1%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:2 MG/M3  
ACGIH TLV:2 MG/M3; 9192

===== 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  
Heal

th 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 MAYCAUSE PULMONARY EDEMA, ASPHYXIATION AND EXCESSIVE EXPOSURE CAN BE FATAL.

Explanation of Carcinogenicity:NONE OF THE ALLOY CONSTITUENTS IS LISTED AS A CARCINOGEN.

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 OCCUR 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 SUSCEPTIBILIT IES.

===== 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 D IFFICULT. IF NOT BREATHING, BEGIN ARTIFICIAL RESPIRATION. IF NO DETECTABLE PULSE, BEGIN EXTERNAL HEART MASSAGE. REMOVE VICTIM FROM WELDING AND DUSTY AREAS.

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

Extinguishing Media:USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL AS APPROPRIATE FOR SURROUNDINGS.

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:FIRE OR EXCESSIVE HEAT MAY CAUSE PRODUCTION OF HAZARDOUS DECOMPOSITION PRODUCTS. GRINDING OR OTHER OPERATIONS MAY PRODUCE FL

AMMABLE/EXPLOSIVE METAL DUST.

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

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.

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

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.

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

Respiratory Protection:USE WELD FUME RESPIRATOR OR AIR SUPPLIED RESPIRATOR OR 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

Spec Gravity:8.5 APPROX.

Solubility in Water:NEGLIGIBLE

Appearance and Odor:METALLIC WIRE, ODORLESS

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

Stability Indicator/Materials to Avoid:YES

STRONG OXIDIZING AGENTS AND/OR MINERAL ACIDS WHICH WOULD PRODUCT  
FLAMMABLE HYDROGEN GAS.

Stability Condition to Avoid:ACCUMULATION OF METAL  
DUST AND FUMES.

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. SINCE LEAD IS A MINOR CONSTITUENT, IT MAY BE THAT  
WASTE MATERIAL IS A REGULATED HAZARDOUS WASTE.

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