

INCO ALLOYS INTERNATIONAL, INC. -- MONEL,FERRY AND CUPRO 107 ALLOYS,K-500 --  
3040-01-151-7992

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

Product ID:MONEL,FERRY AND CUPRO 107 ALLOYS,K-500

MSDS Date:12/01/1990

FSC:3040

NIIN:01-151-7992

MSDS Number: BPMWK

=== Responsible Party ===

Company Name:INCO ALLOYS INTERNATIONAL, INC.

Address:GUYAN RIVERS ROAD

City:HUNTINGTON

State:WV

ZIP:25720

Country:US

Info Phone N

um:304-526-5100/800-624-3411

Emergency Phone Num:304-526-5780

CAGE:28553

=== Contractor Identification ===

Company Name:INCO ALLOYS INTERNATIONAL, INC. DIV INTL NICKEL CO

Address:3200 RIVERSIDE DR

City:HUNTINGTON

State:WV

ZIP:25705

Country:US

Phone:304-526-5100

CAGE:28553

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

Ingred Name:ALUMINUM (SARA III)

CAS:7429-90-5

RTECS #:BD0330000

Fraction by Wt: 3%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:15MG/M3 DUST/5 FUME

ACGIH TLV

:10MG/M3 DUST; 9293

Ingred Name:COPPER (SARA III)  
CAS:7440-50-8  
RTECS #:GL5325000  
Fraction by Wt: 30%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.1MG/M3 FUME/1 DUST  
ACGIH TLV:0.2MG/M3 FUME; 9293  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:IRON  
CAS:65996-67-0  
Fraction by Wt: 1%  
Other REC Limits:NONE RECOMMENDED

Ingred Name:MANGANESE (SARA III)  
CAS:7439-96-5  
RTECS #:OO9275000  
Fraction by Wt: 1%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:(C) 5 MG/M3 DUST  
ACGIH TLV:5 MG/M3 DUST 9293

Ingred Name:NICKEL (SARA III)  
CAS:7440-02-0  
RTECS #:QR5950000  
Fraction by Wt: 64%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3; 9293

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

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

LD50 LC50 Mixture:TLV 10 MG/M3,METAL DUST/5 MG/M3 FUMES  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:YES IARC:Y

ES OSHA:NO

Health Hazards Acute and Chronic:ACUTE- AS SHIPPED, NO KNOWN HEALTH HAZARDS. FUMES/DUSTS CAN IRRITATE EYES, SKIN & RESPIRATORY SYSTEM. CHRONIC- INHALATION MAY CAUSE DROWSINESS, WEAKNESS, PARALYSIS, "METAL FUME FEVER", CHILLS, SWEATING, BODY ACHE, VOMITING. CAN CAUSE CONJUNCTIVITIS, DERMATITIS, PULMONARY FIBROSIS & EMPHYSEMA. WILSON'S DISEASE CAN OCCUR

Explanation of Carcinogenicity:CONTAINS NICKEL.

Effects of Overexposure:AS SHIPPED, NO KNOWN HEALTH HAZARDS.

FUMES/DUSTS CAN IRRITATE EYES, SKIN & RESPIRATORY SYSTEM. REPEATED INHALATION MAY CAUSE DROWSINESS, WEAKNESS, PARALYSIS, "METAL FUME FEVER", CHILLS, SWEATING, BODY ACHE, VOMITING. CAN CAUSE CONJUNCTIVITIS, DERMATITIS, PULMONARY FIBROSIS & EMPHYSEMA. WILSON'S DISEASE CAN OCCUR

Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN DISORDERS SUCH AS DERMATITIS, RESPIRATORY PROBLEMS, LUNG DISEASE OR ANY CONDITION THAT MAY BE AGGRAVATED BY NUISANCE DUST OR FIBERS.

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

First Aid:GET MEDICAL ATTENTION IF SYMPTOMS PERSIST. SKIN:WASH WITH SOAP & WATER. EYE:FLUSH WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. INHALED:REMOVE TO FRESH AIR. PROVIDE OXYGEN/CPR IF NEEDED. ORAL:GET MEDICAL ATTENTION.

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

Flash Point:NON FLAMMABLE

Extinguishing Media:WATER, (CLASS A, B OR C), FOG OR FOAM. USE WATER SPRAY TO COOL FIRE EXPOSED CONTAINERS.

Fire Fighting Procedures:WEAR FULL PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS OPERATED IN THE POSITIVE PRESSURE MODE.

Unusual Fire/Explosion Hazard:NON-FLAMMABLE. HOWEVER, SPARKS FROM WELDING OR GRINDING IN USER OPERATIONS COULD IGNITE FLAMMABLE OR COMBUSTIBLE LIQUIDS, VAPORS AND SOLIDS.

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

Spill Release Procedures:VACUUM OR SHOVEL ANY SPILLED MATERIAL INTO A

SUITABLE CONTAINER. ALLOY WASTES ARE NORMALLY COLLECTED TO RECOVER METAL VALUES.

Neutralizing Agent:NOT APPLICABLE.

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

Handling and Storage Precautions:STORAGE- AVOID CREATING DUST.

Other Precautions:DO NOT GENERATE DUST. AVOID BREATHING DUST OR FUME.  
DO NOT GET IN EYE, ON SKIN OR ON CLOTHING. KEEP OUT OF REACH OF CHILDREN.

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

Respiratory Protection

n:USE NIOSH APPROVED SUPPLIED AIR RESPIRATORY PROTECTION OR RESPIRABLE FUME RESPIRATOR WHEN WELDING, BRAZING OR SOLDERING IN CONFINED SPACE OR WHERE LOCAL EXHAUST OR VENTILATION DOES NOT KEEP EXPOSURE BELOW TLV.

Ventilation:LOCAL/GENERAL TO MAINTAIN PEL/TLV. CHECK LOCAL REGULATIONS FOR EMISSION STANDARDS.

Protective Gloves:LEATHER, COTTON OR RUBBER AS NEEDED

Eye Protection:DUST-RESISTANT SAFETY GOGGLES

Other Protective Equipment:EYE WASH STATION AND SAFETY SHOWER, WORK CLOTH

ING AND APRON AS REQUIRED. DO NOT WEAR CONTACT LENSES. APPLY SKIN CREAM.

Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES.

Supplemental Safety and Health

MAINTAIN EXPOSURES BELOW THE ACCEPTABLE EXPOSURE LEVELS.

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

HCC:N1

Melt/Freeze Pt:M.P/F.P Text:>2552F,>140

Spec Gravity:8 - 9

Solubility in Water:INSOLUBLE

Appearance and Odor:SILVER-COLORED METAL SHAPED AS PLATE,BAR,WIRE,TU

BE,ROD,STRIP ETC.. - ODORLESS

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

Stability Indicator/Materials to Avoid:YES

STRONG MINERAL ACIDS

Stability Condition to Avoid:NONE

Hazardous Decomposition Products:TOXIC FUMES & GASES FROM WELDING, METAL OXIDES, CHROMATES, FLUORIDES, CO, CO2, OZONE & OXIDES OF NITROGEN.

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

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERA

## L REGULATIONS.

Disclaimer (provided with this information by the compiling agencies):  
This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.