

INCO ALLOYS INTERNATIONAL INC -- INCONEL FILLER METAL 718 -- 3439-01-140-9057

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Product Identification  
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Product ID:INCONEL FILLER METAL 718

MSDS Date:11/15/1995

FSC:3439

NIIN:01-140-9057

MSDS Number: CGZLM

=== Responsible Party ===

Company Name:INCO ALLOYS INTERNATIONAL INC

Address:1401 BURRIS RD

City:NEWTON

State:NC

ZIP:28658

Country:US

Info Phone Num:800-624-3411

Emergency Phone Num:30

4-526-5780

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

Company Name:RHONE-POULENC AG CO

Address:2 T W ALEXANDER DR

Box:12014

City:RESEARCH TRIANGLE PARK

State:NC

ZIP:27709

Country:US

Phone:800-334-7577

CAGE:9Z672

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Composition/Information on Ingredients  
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Ingred Name:CHROMIUM; (CR) (SARA 313) (CERCLA)

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AS:7440-47-3  
RTECS #:GB4200000  
Fraction by Wt: 19%  
OSHA PEL:1 MG/M3  
ACGIH TLV:0.5 MG/M3  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:IRON; (FE)  
CAS:7439-89-6  
RTECS #:NO4565500  
Fraction by Wt: 19%  
OSHA PEL:10 MG/M3 (MFR)  
ACGIH TLV:5 MG/M3 (MFR)

Ingred Name:MOLYBDENUM; (MO)  
CAS:7439-98-7  
RTECS #:QA4680000  
Fraction by Wt: 3%  
OSHA PEL:10 PPM  
ACGIH TLV:10 PPM

Ingred Name:NICKEL; (NI) (SARA 313) (CERCLA). LD50:(ORAL,RAT) >9,000  
MG/KG.  
CAS:7440-02-0  
RTECS #:QR5950000  
Fraction by Wt: 53%  
OSHA P  
EL:1 MG/M3  
ACGIH TLV:1 MG/M3

Ingred Name:NIOBIUM  
CAS:7440-03-1  
RTECS #:QT9900000  
Fraction by Wt: 5%  
OSHA PEL:N/K  
ACGIH TLV:N/K

Ingred Name:TITANIUM; (TI)  
CAS:7440-32-6  
RTECS #:XR1700000  
Fraction by Wt: 1%  
OSHA PEL:N/K  
ACGIH TLV:N/K

Ingred Name:EFTS OF OVEREXP:FOR CARCIN SUFFICIENT FOR HEXAVALENT  
CHROMIUM CMPDS (MFR). FUMES FROM WELDING CHROMIUM-CNTNG (ING 8)  
RTECS #:9999999ZZ

Ingred Name:ING 7:STAINLESS STEEL/CERTAIN CHROMIUM-CONTAINING RODS CAN  
TRIGGER ECZEMATOUS ERUPTIONS ON PAL

MS OF HANDS OF (ING 9)  
RTECS #:9999999ZZ

Inged Name:ING 8:SENSITIZED INDIVIDUALS. IRON:INHAL CAN LEAD TO IRRIT  
OF RESP TRACT. PRLNG INHAL (6-10 YRS) KNOWN TO CAUSE (ING 10)  
RTECS #:9999999ZZ

Inged Name:ING 9:SIDEROSIS WHICH APPEARS TO BE BENIGN PNEUMOCONIOSIS.  
PRLNG EYE CONT COULD CAUSE RUST BROWN COLORED SPOTS (ING 11)  
RTECS #:9999999ZZ

Inged Name:ING 10:FORMING AROUND PARTICLES & IF LEFT FOR SEVERAL YRS,  
PERM DMG COULD RSLT. MOLYBDENUM:LOW TOX. HIGH DIETARY(ING 12)  
RTECS #:99  
99999ZZ

Inged Name:ING 11:INTAKE MAY PRDCE GOUT-LIKE DISEASE & HIGH BLOOD URIC  
ACID. INHAL HAS CAUSED KIDNEY DMG, RESP IRRIT & (ING 13)  
RTECS #:9999999ZZ

Inged Name:ING 12:LIVER DMG IN ANIMALS. SKIN & EYE CONT MAY CAUSE  
IRRIT. NICKEL:SINGLE INTRATRACHEAL INSTILLATIONS IN (ING 14)  
RTECS #:9999999ZZ

Inged Name:ING 13:HAMSTERS AT DOSES NEAR LD50 HAVE PRDCD INCR  
INCIDENCE OF FIBROSARCOMAS, NESOTHELIOMAS, RHABDOMYOSARCOMAS.(ING  
15)  
RTECS #:9999999ZZ

Inged Name:ING 14:INHAL IRR  
ITATED RESP TRACT IN RODENTS. KNOWN AS  
SENSITIZER & MAY PRDCE ALLERGIC RXNS. NIOBIUM:RUSSIAN (ING 16)  
RTECS #:9999999ZZ

Inged Name:ING 15:MED LITERATURE HAS DESCRIBED EARLY CHEST X-RAY  
CHANGES IN WELDERS & CHEM WORKERS HNDLG NIOBIUM, BUT NO (ING 17)  
RTECS #:9999999ZZ

Inged Name:ING 16:SPECIFIC DATA HAS BEEN FOUND. COULD CAUSE IRRIT TO  
SKIN, EYES & RESP TRACT UPON ACUTE EXPOS. TITANIUM: (ING 18)  
RTECS #:9999999ZZ

Inged Name:ING 17:INHAL COULD CAUSE MILD IRRIT TO RESP TRACT & PRD

CE

LUNG FIBROSIS & CHRONIC BRONCH. FOR MORE INFO CONT NEHC.

RTECS #:9999999ZZ

Inged Name:VENT:PROVISION OF ADEQ VENT &/OR NIOSH APPRVD AIR-SUPPLIED RESPS. MAINTAIN EXPOS BELOW ACCEPT EXPOS LIMS. USE (ING 20)

RTECS #:9999999ZZ

Inged Name:ING 19:INDUS HYGIENE/AIR MONITORING TO ENSURE THAT YOUR USE OF THIS MATL DOES NOT CREATE EXPOS WHICH EXCEED (ING 21)

RTECS #:9999999ZZ

Inged Name:ING 20:RECOMMENDED EXPOSURE LIMITS. ALWAYS USE EXHAUST VENTILATION IN USER WELDING OPERATION.

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TECS #:9999999ZZ

Inged Name:EYE PROT:FULL LGTH FSHLD . SELECT WELDING LENS SHADE FROM AMERICAN WELDING SOCIETY PUBLICATION F2.2.

RTECS #:9999999ZZ

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

LD50 LC50 Mixture:SEE INGREDIENT 4.

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

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

Health Hazards Acute and Chronic:AS SHIPPED, THESE ELECTRODES HAVE NO KNOWN (UNLESS INGESTED) TOX PROPERTIES OTHER THAN CA

USING ALLERGIC

RXNS IN INDIVIDUALS SENSITIVE TO METAL(S) CNTND IN THESE WELDING PRODS. USER GENERATED DUSTS & FUMES MAY ON CONT W/SKIN OR EYES PRDCE MECH IRRIT. CHRONIC EXPOS COULD CAUSE DERM (SKIN)/CONJ (EYES). (EFTS OF OVEREXP)

Explanation of Carcinogenicity:NICKEL:IARC MONOS ON EVAL OF CARCIN RISK OF CHEMS TO MAN, VOL 49, PG 257, 1990:GRP 2B. NTP 7TH ANNUAL RPT ON (SUPP DATA)

Effects of Overexposure:HLTH HAZ:EXCESSIVE INHAL OF USER GENERATED FUMES FROM WELDING W/P

RODS MAY, DEPENDING ON SPECIFIC FEATURES OF

PROCESS USED, POSE LONG TERM HLTH HAZ. CHROMIUM:RELATIVELY NONTOX. INVOLVED IN FIBROSIS OF LUNGS. WHEN HEATED TO HIGH TEMP, FUMES PRDCD MAY BE DAMAGING TO LUNGS IF INHALED. IARC HAS CONCLUDED THAT EVID (ING 7)

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:EYES:FLUSH PARTICLES FROM EYEBALLS W/CLEAN WATER FOR AT LEAST 15 MINUTES. IF

IRRITATION PERSISTS, SEEK MEDICAL HELP. SKIN:WASH W/SOAP & WATER TO REMOVE ANY METALLIC PARTICLES. IF RASH DEVELOPS, SEEK MEDICAL ATTENTION. INHAL:REMOVE FROM EXPOSURE. IF SEVERE RESPIRATORY IRRITATION PERSISTS, SEEK MEDICAL HELP. INGEST:SEE MEDICAL HELP.

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

Extinguishing Media:MEDIA SUITABLE FOR SURROUNDING FIRE .  
Fire Fighting Procedures:USE NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIPMENT .  
Unusual Fire/Explosion Hazard:NONFLAMMABLE; HOWEVER SPARKS FROM WELDING IN USER OPERATIONS COULD IGNITE FLAMMABLE OR COMBUSTIBLE LIQUIDS, VAPORS & SOLIDS.

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

Spill Release Procedures:VACUUM OR SHOVEL ANY SPILLED MATERIAL INTO A SUITABLE CONTAINER.  
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:DO NOT EXPOSE SKIN OR EYES TO HEAT & RADIATION FROM WELDING OPERATIONS.  
Other Precautions:REFER TO FOLLOWING SOURCES FOR IMPORTANT ADDNL INFO: ANSI Z49.1, AMERICAN WELDING SOCIETY, P.O. BOX 351040, MIAMI, FL 33135 &/OR 29 CFR 1910, OSHA "DEPT OF LABOR", WASHINGTON, D.C. 20210.

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

Respiratory Protection:RESP PROT IS NEC WHEN EXPOS LIMS FOR AIRBORNE CONTAMS ARE EXCEEDED DURING WELDING W/THESE ELECTRODES. USE NIOSH APPRVD AIR-SUPPLIED RESPIRATORS IN UNCONFINED AREAS. USE ONLY NIOSH APPROVED RESPS I/A/W 29 CFR 1910.134 - RESPIRATORY PROTECTION.  
Ventilation:USE LOC EXHST WHEN WELDING. MAINTAIN EXPOS BELOW ACCEPT EXPOS LIMS. CONFINED SPACES REQ SPECIAL ATTN TO (ING 19)  
Protective Gloves:IMPERVIOUS GLOVES .  
Eye Protection:ANSI APPRVD CHEM WORKERS GOGGS &(ING 22)  
Other Protective Equipment:ANSI APPROVED EYE WASH FOUNTAIN & DELUGE SHOWER . PROT EQUIP IS REQD WHEN WELDING. WEAR FLAME RETARDANT CLOTHING.  
Work Hygienic Practices:NON

E SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

MP:>2552F,>1400C. HAZ DECOMP PROD:SPECIFIC PROCESS BEING USED. MAY INCL METALS, METAL OXIDES, CHROMATES, FLUORIDES, CARBON MONOXIDE, ZONE & OXIDES OF NITROGEN. PHOSGENE CAN BE PRDCD IF CHLORINATED SOL V VAPS ARE PRESENT IN USER OPERATIONS. EXPLAN OF CARCIN:CARCINS, 1994:ANTIC TO BE CARCIN. ANIMAL:LUNGS, NASAL CAVITIES.

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Physical/Chemical Properties  
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Melt/Freeze Pt:M.P/F.P Text:SUPP

DATA

Spec Gravity:8-9

Appearance and Odor:SOLID, METALLIC SILVER COLORED WIRE; ODORLESS.

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Stability and Reactivity Data  
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Stability Indicator/Materials to Avoid:YES

NONE SPECIFIED BY MANUFACTURER.

Stability Condition to Avoid:NONE SPECIFIED BY MANUFACTURER.

Hazardous Decomposition Products:FUMES & GASES GENERATED IN USER

WELDING OPERATIONS WILL DEPEND ON FILLER METAL ALLOY, BASE METAL, FLUX & (SUPP DTAA)

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Disposal Considerations  
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Waste Disposal Methods:ALLOY WASTES ARE NORMALLY COLLECTED TO RECOVER METAL VALUES. HOWEVER; IF DISPOSAL IS NECESSARY, DISPOSE I/A/W FEDERAL, STATE OR LOCAL REGULATIONS.

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