

INCO ALLOYS INTERNATIONAL INC -- MONEL*WELDING ELECTRODE**190 & 190N --
3439-00-559-3261

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

Product ID:MONEL*WELDING ELECTRODE**190 & 190N

MSDS Date:11/01/1989

FSC:3439

NIIN:00-559-3261

MSDS Number: BJYZF

=== Responsible Party ===

Company Name:INCO ALLOYS INTERNATIONAL INC

Address:1401 BURRIS RD

City:NEWTON

State:NC

ZIP:28658-1754

Country:US

Info Phone Num:704-465-0

352

Emergency Phone Num:304-526-5780

CAGE:9Z762

=== Contractor Identification ===

Company Name:INCO ALLOYS INTERNATIONAL INC

Address:1401 BURRIS RD

Box:City:NEWTON

State:NC

ZIP:28658-1754

Country:US

Phone:800-624-3411

CAGE:9Z762

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

Ingred Name:BARIUM CARBONATE

CAS:513-77-9

RTECS #:CQ8600000

Fraction by Wt: 1-5%

Other REC Limits:NONE SPECIFIED

Ingred Name:CALCIUM CARBONATE (MARBLE) (LIMESTONE)

CAS:1317-65-3

RTECS #:EV9580000

Fra

ction by Wt: 1-5%
Other REC Limits:NONE SPECIFIED
OSHA PEL:15 MG/M3 TDUST
ACGIH TLV:10 MG/M3 TDUST; 9192

Ingred Name:CALCIUM FLUORIDE
CAS:7789-75-5
RTECS #:EW1760000
Fraction by Wt: 1-5%
Other REC Limits:NONE SPECIFIED

Ingred Name:COPPER (SARA III)
CAS:7440-50-8
RTECS #:GL5325000
Fraction by Wt: 15-40%
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:MANGANESE (SARA III)
CAS:7439-96-5
RTECS #:OO
9275000
Fraction by Wt: 1-5%
Other REC Limits:NONE SPECIFIED
OSHA PEL:(C) 5 MG/M3 DUST
ACGIH TLV:5 MG/M3 DUST 9293

Ingred Name:SODIUM FLUOALUMINATE
CAS:15096-52-3
RTECS #:WA9625000
Fraction by Wt: 5-10%
Other REC Limits:NONE SPECIFIED
OSHA PEL:2.5 MG/M3

Ingred Name:SODIUM SILICATE
CAS:1344-09-8
Fraction by Wt: 1-5%
Other REC Limits:NONE SPECIFIED

Ingred Name:NICKEL (SARA III)
CAS:7440-02-0
RTECS #:QR5950000
Fraction by Wt: 40-70%
Other REC Limits:NONE SPECIFIED
OSHA PEL:1 MG/M3
ACGIH TLV:1 M

G/M3; 9192

Ingred Name:SILICA, CRYSTALLINE - FUSED
CAS:60676-86-0
RTECS #:VV7328000
Fraction by Wt: 1-5%
Other REC Limits:NONE SPECIFIED
OSHA PEL:SEE TABLE Z3
ACGIH TLV:0.1 MG/M3 RDUST;9293

Ingred Name:TITANIUM, METAL
CAS:7440-32-6
RTECS #:XR1700000
Fraction by Wt: 1-5%
Other REC Limits:NONE SPECIFIED

Ingred Name:TITANIUM DIOXIDE
CAS:13463-67-7
RTECS #:XR2275000
Fraction by Wt: 1-5%
Other REC Limits:NONE SPECIFIED
OSHA PEL:15 MG/M3 TDUST
ACGIH TLV:10 MG/M3 TDUST; 9293

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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:YES IARC:YES OSHA:NO
Health Hazards Acute and Chronic:BRONCHIAL IRRITATION, BARITOSIS,
RESPIRATORY TRACT IRRITATION, METAL FUME FEVER, GASTROINTESTINAL
UPSET, PUS FORMATION IN THE CONJUCTIVA, CORNEA OR SCLERA;
NEUROLOGICAL PROBLEMS; ABNORMAL KIDNEY FUNCT ION; LUNG FIBROSIS AND
CHRONIC BRO
NCHITIS.
Explanation of Carcinogenicity:NICKEL & CRYSTALLINE SILICA HAVE BEEN
IDENTIFIED BY IARC AND/OR NTP AS POTENTIAL CANCER CAUSING AGENTS.
Effects of Overexposure:EYE IRRITATION, REDNESS, PAIN & CONJUNCTIVITIS;
NAUSEA, VOMITING & WEAKNESS; EXCESSIVE SALIVATION, COLIC, VIOLENT
DIARRHEA, CONVULSIVE TREMORS; INTESTINAL BLOCKAGE; CHILLS, FEVER &
SWEATING; APATHY, D ROWSINESS, SPASTIC GAIT & PARALYSIS; LOSS OF
CONSCIOUSNESS & DEATH.
Medical Cond Aggravated by Exposure:PRE-EXI

STING CHRONIC SKIN, EYE OR
RESPIRATORY DISORDERS MAY BE AGGRAVATED IF INDIVIDUALS ARE
REPEATEDLY OVEREXPOSED TO FUMES AND DUST.

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

First Aid:INHALATION: REMOVE FROM EXPOSURE. IF SEVERE RESPIRATORY
IRRITATION PERSISTS, SEE DOCTOR. VICTIM MAY EXHIBIT " METAL FUME
FEVER". EYE: FLUSH PARTICLES FROM EYE WITH CLEAN WATER FOR 15
MINUTES. IF IRRITATION PERSISTS SEE DOCTOR. SKIN: WAS WITH SOAP
AND WATER. IF RASH
DEVELOPS, SEE DOCTOR. INGESTION: IF SYMPTOMS OF
INGESTION ARISE, SEE MEDICAL HELP.

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

Flash Point:NONFLAMMABLE
Unusual Fire/Explosion Hazard:NONFLAMMABLE; HOWEVER SPARKS FROM WELDING
IN USER OPERATIONS COULD IGNITE FLAMMABLE OR COMBUSTIBLE LIQUIDS,
VAPORS AND SOLID.

===== 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.

===== 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:MAINTAIN EXPOSURES BELOW THE ACCEPTABLE EXPOSURE
LIMITS. USE INDUSTRIAL HYGIENE AIR MONITORING TO ENSURE THAT YOUR
USE OF THIS MATERIAL DOES NOT CREAT
E EXPOSURES WHICH EXCEED
RECOMMENDED EXPOSURE LIMITS.

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

Respiratory Protection:USE AIR-SUPPLIED RESPIRATOR IN CONFINED SPACES.
RESPIRATORS SHOULD BE USED IN ACCORDANCE WITH 29CFR 1910.134.
Ventilation:USE LOCAL AND GENERAL VENTILATION TO KEEP AIRBORNE
CONCENTRATIONS OF DUST OR FUMES BELOW THE TLV DURING USE.
Protective Gloves:WELDERS LEATHER GLOVES
Eye Protection:OSHA APPROVED GOGGLES/FACE SHIELD W/LENS
Other Protec

tive Equipment:WEAR FLAME RETARDANT CLOTHING. DO NOT EXPOSE SKIN OR EYES TO HEAT & RADIATION.

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.

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

HCC:N1

Melt/Freeze Pt:M.P/F.P Text:>1832F

Spec Gravity:4-6

Appearance and Odor:WELDING ELECTRODE IS METALLIC SILVER COLORED WIRE WITH A FLUX COATING/FLUX CORE

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

Stability Indicator/Materials to Avoid:YES

Hazardous Decomposition Products:WELDING AND CUTTING OPERATION MAY INCLUDE OXIDES OF THE METALS, CHROMATES, FLUORIDES, CARBON MONOXIDE, OZONE, TOXIC GAS.

===== Dispos al Considerations =====

Waste Disposal Methods:IF DISPOSAL IS NECESSARY, DISPOSE IN ACCORDANCE WITH FEDERAL, STATE & LOCAL REGULATIONS.

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