

INCO ALLOYS INTERNATIONAL INC -- INCONEL -- 3439-00-273-8825

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

Product ID:INCONEL

MSDS Date:11/01/1989

FSC:3439

NIIN:00-273-8825

MSDS Number: BNMRF

=== Responsible Party ===

Company Name:INCO ALLOYS INTERNATIONAL INC

Address:1401 BURRIS RD

City:NEWTON

State:NC

ZIP:28658-1754

Country:US

Info Phone Num:704-465-0352

Emergency Phone Num:304-526-5780

CAGE:9Z762

=== Cont

ractor 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:CHROMIUM (SARA III)

CAS:7440-47-3

RTECS #:GB4200000

Fraction by Wt: 16%

Other REC Limits:NONE SPECIFIED

OSHA PEL:0.5 MG/M3 (AS CR)

ACGIH TLV:0.5 MG/M3; 9192

EPA Rpt Qty:1 LB

DOT Rpt Qty:1 LB

Ingred Name:IRON

CAS:7439-89-6

RTECS #:NO4565500

Fr

action by Wt: 7%
Other REC Limits:NONE SPECIFIED
OSHA PEL:5 MG/M3
ACGIH TLV:10 MG/M3 AS FE2O3

Ingred Name:MANGANESE (SARA III)
CAS:7439-96-5
RTECS #:OO9275000
Fraction by Wt: 2%
Other REC Limits:NONE SPECIFIED
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: 71%
Other REC Limits:NONE SPECIFIED
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3; 9192

Ingred Name:TITANIUM, METAL
CAS:7440-32-6
RTECS #:XR1700000
Fraction by Wt:
3%
Other REC Limits:NONE SPECIFIED

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

LD50 LC50 Mixture:UNCLASSIFIED WELDING FUMES=5MG/M3 PEL
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) TOXICOLOGICAL PROPERTIES OTHER THAN CAUSING
ALLERGIC REACTIONS IN INDIVIDUALS SENSITIVE TO THE METALS CONTAINED
IN THI
S PRODUCT. USER GENER ATED DUST MAY CAUSE SKIN OR EYE
PRODUCED MECHANICAL IRRITATION. EXCESSIVE INHALATION MAY POSE LONG
TERM HEALTH HAZARD.
Explanation of Carcinogenicity:NICKEL, AND CHROMIUM HAVE BEEN
IDENTIFIED BY IARC AND/OR NTP AS POTENTIAL CANCER CAUSING AGENTS.
Effects of Overexposure:EXPOSURE TO WELDING FUMES MAY CAUSE METAL FUME
FEVER WITH SYMPTOMS OF CHILLS, FEVER, NAUSEA, COUGH, DRY THROAT,
WEAKNESS, MUSCLE ACHES, AND A SWEET OR METALLIC TASTE IN THE MOUTH.
PRO

LONGED OR REPEATED EXPOSURE MAY CAUSE DIFFICULTY IN WALKING, WEAKNESS OR CRAMPS IN THE LEGS, HOARSENESS, MEMORY LOSS, SKIN SENSITIZATION.

Medical Condition Aggravated by Exposure: PRE-EXISTING 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 TO FRESH AIR. CONSULT A PHYSICIAN. EYE: FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER FOR 15 MINUTES. GET MEDICAL ATTENTION. SKIN: WASH WITH SOAP AND WATER. INGESTION: WHILE INGESTION OF LARGE ENOUGH QUANTITIES TO CAUSE HEALTH EFFECTS IS UNLIKELY, CONSULT A PHYSICIAN IF IT OCCURS.

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

Flash Point: NONFLAMMABLE

Extinguishing Media: NONFLAMMABLE

Fire Fighting Procedures: NONE STATED BY THE MANUFACTURER

Unusual Fire/Explosion Hazard: 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: 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: RESPIRATORY PROTECTION IS NECESSARY WHEN EXPOSURE LIMITS FOR AIRBORNE CONTAMINANTS ARE EXCEEDED DURING WELDING

G. USE ONLY NIOSH APPROVED RESPIRATORS. USE AIR-SUPPLIED RESPIRATOR IN CONFINED SPACES.

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:SELECT WELDING LENS SHADE

Other Protective Equipment:BARRIER CREAMS MAY BE NECESSARY TO PREVENT SKIN SENSITIZATION AND DERMATITIS. USE FLAME RETARDENT CLOTHING.

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. USE INDUSTRIAL HYGIENE AIR MONITORING TO INSURE

THAT USE DOES NOT CREATE EXPOSURES IN EXCESS OF RECOMMENDED LIMITS

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

HCC:N1

M

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

Spec Gravity:8-9 GM/CC

Solubility in Water:NEGLIGIBLE

Appearance and Odor:ODORLESS, METALLIC SILVER COLORED WIRE, SOLID, 36 INCHES IN LENGTH

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

Stability Indicator/Materials to Avoid:YES

NONE STATED BY THE MANUFACTURER

Stability Condition to Avoid:SPARKS FROM WELDING IN USER OPERATIONS

COULD IGNITE FLAMMABLE OR COMBUSTIBLE MATERIALS.

Hazardous Decomposition Products:WELDING AND CUTTI

NG OPERATION MAY

INCLUDE OXIDES OF THE METALS

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

Waste Disposal Methods:CONSULT YOUR LOCAL ENVIRONMENTAL OFFICER. IF DISPOSAL IS NECESSARY, DISPOSE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

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