

IRELAND ALLOYS, INC -- COBALT BASE ALLOY, STELLITE 31-X45 -- 3439-00-357-7860

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

Product ID:COBALT BASE ALLOY, STELLITE 31-X45

MSDS Date:11/21/1985

FSC:3439

NIIN:00-357-7860

Status Code:A

MSDS Number: CLNCF

=== Responsible Party ===

Company Name:IRELAND ALLOYS, INC

Address:UNK

Box:41000

City:HOUSTON

State:TX

ZIP:77240-1000

Country:US

Info Phone Num:713-937-1111

Emer

gency Phone Num:713-937-1111

CAGE:UO495

=== Contractor Identification ===

Company Name:IRELAND ALLOYS, INC

Address:UNK

Box:41000

City:HOUSTON

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ZIP:77240-1000

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Phone:713-937-1111

CAGE:UO495

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

Ingred Name:CHROMIUM

CAS:7440-47-3

RTECS #:GB4200000

= Wt:2.5

OSHA PEL:1 MG/M3

ACGIH TLV:0.5 MG/M3

EPA Rpt Qty:1 LB

DOT Rpt Qty:1 LB

Ingred Name:COBALT

CAS:7440-48-4

RTECS #:GF8750000

= Wt:56.

OSHA PEL:0.1 MG/M3

ACGIH TLV

:0.05 MG/M3

Ingred Name:IRON
CAS:7439-89-6
RTECS #:NO4565500
= Wt:2.
OSHA PEL:NONE
ACGIH TLV:NONE

Ingred Name:NICKEL
CAS:7440-02-0
RTECS #:QR5950000
= Wt:10.
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3
EPA Rpt Qty:100 LBS
DOT Rpt Qty:100 LBS

Ingred Name:TUNGSTEN
CAS:7440-33-7
RTECS #:YO7175000
= Wt:7.
OSHA PEL:NONE
ACGIH TLV:5 MG/M3
ACGIH STEL:10 MG/M3

Ingred Name:CARBON
CAS:7440-44-0
RTECS #:FF5250000
= Wt:.5
OSHA PEL:5000 PPM/DIOXIDE
ACGIH TLV:5000 PPM/DIOXIDE

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

Reports of Carcinogenicity:NTP:UNKNOWN IARC:YES
Health Hazards Acute and Chronic:SHORT TERM: METALLIC TASTE; NAUSEA;
TIGHTNESS OF CHEST; FEVER; IRRITATION OF EYES, NOSE, THROAT AND
SKIN; LOSS OF CONSCIOUSNESS/DEATH DUE TO WELDING/REMELT GASES OR
LACK OF OXYGEN. LONG TERM: ADVERSE EFFECTS MAY RESULT FROM LONG
TIME EXPOSURE TO FUMES, GASES, DUSTS. THESE EFFECTS MAY INCLUDE
SKIN SENSITIZATION, NEUROLOGICAL DAMAGE, RESPIRATORY DISEASE SUCH
A

S BRONCHIAL ASTHMA, LUNG FIBROSIS OR PNEUMOCONIOSIS.

Explanation of Carcinogenicity:NICKEL AND CADMIUM HAVE BEEN DETERMINED BY THE IARC TO BE SUSPECTED CARCINOGENS.

Effects of Overexposure:SHORT TERM: METALLIC TASTE; NAUSEA; TIGHTNESS OF CHEST; FEVER; IRRITATION OF EYES, NOSE, THROAT AND SKIN; LOSS OF CONSCIOUSNESS/DEATH DUE TO WELDING/REMELT GASES OR LACK OF OXYGEN. LONG TERM: ADVERSE EFFECTS MAY RESULT FROM LONG TIME EXPOSURE TO FUMES, GASES, DUSTS. THESE EFFECTS MAY INCLUDE SKIN SENSITIZATION, NEUROLOGICAL DAMAGE, RESPIRATORY DISEASE SUCH AS BRONCHIAL ASTHMA, LUNG FIBROSIS OR PNEUMOCONIOSIS.

Medical Conditions Aggravated by Exposure:PRE-EXISTING RESPIRATORY OR ALLERGIC CONDITIONS MAY OCCUR IN SOME WORKERS.

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

First Aid:REMOVE VICTIM FROM EXPOSURE AND OBTAIN PROMPT MEDICAL ATTENTION. IF VICTIM IS UNCONSCIOUS, ADMINISTER OXYGEN. IF NOT BREATHING, RESUSCITATE IMMEDIATELY.

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

Fire Fighting Procedures:SOLID FORMS-NON FLAMMABLE.

Unusual Fire/Explosion Hazard:SHAVINGS OR TURNINGS-IN EXTREME CASES, THE CUTTING OIL CAN IGNITE, BUT THE METAL ITSELF WILL NOT.

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

Spill Release Procedures:RESIDUE FROM CUTTING OR GRINDING SHOULD BE SWEEPED OR VACUUMED AND PLACED IN SUITABLE CONTAINERS FOR DISPOSAL BY LOCAL, STATE OR FEDERAL WASTE DISPOSAL REGULATIONS.

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

Other Precautions:PEL/TLV EXPOSURES SHOULD BE KEPT BELOW RECOMMENDED RECOMMENDATIONS BY OSHA AND ACGIH TO ENSURE PROPER HEALTH PROTECTION OF WORKER.

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

Respiratory Protection:WHEN EXPOSURE LIMITS ARE EXCEEDED, USE PROPER APPROVED VENTILATION.

Ventilation:USE LOCAL EXHAUST WHEN CUTTING, GRINDING, WELDING OR REMELTING.

Protective Gloves

es:SHOULD BE USED WHEN CUTTING, GRINDING, WELDING.

Eye Protection:SHOULD BE USED WHEN CUTTING, GRINDING, WELDING.

Other Protective Equipment:SHOULD BE USED WHEN CUTTING, GRINDING, WELDING.

Work Hygienic Practices:SHAVINGS OR TURNINGS CONTAINING CUTTING OILS SHOULD NOT BE ALLOWED TO CONTACT THE SKIN FOR PROLONGED PERIODS. INADVERTENT SHORT TERM CONTACT IS HARMLESS.

Supplemental Safety and Health

PHYSICAL DATA-COBALT BASE ALLOY PRODUCTS ARE SHIPPED AS SOLID FORMS, OR AS METAL SHAVI

NGS OR BORINGS. THE SHAVING OR BORINGS WILL EITHER BE

DRY & COMPLETELY FREE OF CUTTING OIL, OR WILL CONTAIN A SMALL % OF WATER SOLUBLE CUTTING OIL.

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

HCC:N1

Appearance and Odor:SOLID FORMS, OR AS METAL SHAVINGS OR BORINGS

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

Stability Indicator/Materials to Avoid:YES

COBALT IS INCOMPATIBLE WITH ACETYLENE, HYDRAZINE, NITRATES AND OXIDANTS.

Stability Co

ndition to Avoid:METAL PRODUCTS THEMSELVES ARE NOT

REACTIVE, HOWEVER, CAUTION MUST BE TAKEN WHEN WELDING AND REMELTING DUE TO FUMES AND GASES.

===== Toxicological Information =====

Toxicological Information:PHYSIOLOGICAL EFFECTS-COBALT CAUSES A

DERMATITIS OF THE ALLERGIC SENSITIVITY TYPE AT POINTS OF FRICTION.

COBALT TOXICITY ALSO RESULTS IN A PROGRESSIVE, DIFFUSE, INTERSTITIAL PNEUMONIA WITH A NON-PRODUCTIVE COUGH, DYSPNEA ON EXERTION, INT

ERSTITIAL FIBROSIS & CELL DAMAGE. OTHER WORKERS HAVE

EXPERIENCED A SENSITIZED RESPIRATORY DISEASE CHARACTERIZED BY COUGH, WHEEZING AND SHORTNESS OF BREATH WHERE UPON REMOVAL FROM ENVIRONMENT, THE SYMPTOMS SUBSIDE.

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

Waste Disposal Methods:RESIDUE FROM CUTTING OR GRINDING SHOULD BE SWEEPED OR VACUUMED AND PLACED IN SUITABLE CONTAINERS FOR DISPOSAL BY LOCAL, STATE OR FEDERAL WASTE DISPOSAL REGULATIONS.

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===== Other Information =====

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