A M CASTLE METALS & CO -- NICKEL BASED ALLOY STEEL, NICKEL 2XX -- 9530-00N016994

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

Product ID:NICKEL BASED ALLOY STEEL, NICKEL 2XX
MSDS Date:03/01/1990
FSC:9530
NIIN:00N016994
MSDS Number: BKSBT
=== Responsible Party ===
Company Name:A M CASTLE METALS & CO
Address:3400 N WOLF ROAD
City:FRANKLIN PARK
State:IL
ZIP:60131
Country:US
Info Phone Num:708-455-7111
Emergency Phone Num:708-455-7111
CAGE:11045
=== Contractor Identification ===
Company Name:CASTLE A M AND CO
Address:3400 N WOLF RD
Box:City:FRANKLIN PARK
State:IL
ZIP:60131-1319
Country:US
Phone:847-455-7111
CAGE:11045

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

Ingred Name:CHROMIUM (SARA III)
CAS:7440-47-3
RTECS #:GB4200000
Fraction by Wt: < 2%
OSHA PEL:1 MG/M3
ACGIH TLV:0.5 MG/M3; 9192
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:MANGANESE (SARA III)
CAS:7439-96-5
RTECS #:OO9275000
Fraction by Wt: < 5%
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: 95-99%
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3; 9192

Ingred Name:TITANIUM, METAL
CAS:7440-32-6

RTECS #:XR1700000
Fraction by Wt: < 5%
Other REC Limits:10 MG/M3 TDUST (MFR)

Ingred Name:TUNGSTEN
CAS:7440-33-7
RTECS #:YO7175000
Fraction by Wt: < 5%
OSHA PEL:5 MG/M3/ 10 STEL
ACGIH TLV:5 MG/M3/10 STEL;9192

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.
Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO
Health Hazards Acute and Chronic:STEEL PRODUCTS IN THE NATURAL STATE DO NOT PRESENT INHAL, INGEST, CONTACT HAZARD. OPERATIONS (BURNING, WELD, SAWING ETC) MAY RELEASE FUMES/DUST WHICH MAY CAUST HEALTH HAZARDS. ACUTE: EXP TO FUME/DUST MAY PRODUCE IRRIT OF EYES & RESP SYS. INHAL: HIGH CONC OF FRESHLY FORMED OXIDE FUMES OF FE, MN, CU MAY(EFTS OF OVEREXP)
Explanation of Carcinogenicity:CHROMIUM: IARC GRP 1, NTP GRP 1; NICKEL: IARAC GRP 1, NTP GRP 2.
Effects of Overexposure:HLTH HAZ: CAUSE METAL FUME FEVER CHARAC BY METALLIC TASTE IN MOUTH, DRYNESS & IRRIT OF THE THROAT & FLULIKE SYMP. CHRONIC: INHAL: HIGH CONC OF IRON OXIDE FUMES/DUST MAY LEAD TO A BENIGN PNEUMOCONIOSIS (SIDEROSIS). INHAL: OF HIGH CONC OF FERRIC OXIDE MAY ENHANCE RISK OF LUNG CANCER DEVELOPMENT IN WORKERS EXP(SUPP DATA)
Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:INHAL: IF EXPOSED TO EXCESSIVE LEVELS OF METAL FUMES, REMOVE TO FRESH AIR, SEEK MEDICAL ATTENTION. EYE: FLUSH WITH WATER FOR AT LEAST 15 MIN. INGEST: CALL MD IMMEDIATELY .

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

Extinguishing Media:USE EXTINGUISHING MEDIA SUITABLE FOR SURROUNDING FIRE .
Fire Fighting Procedures:STEEL PRODUCTS IN THE SOLID STATE PRESENT NO FIRE OR EXPLOSION HAZARD. WEAR NIOSH/MSHA APPROVED SCBA AND FULL PROTECTIVE EQUIPMENT .
Unusual Fire/Explosion Hazard:NONE SPECIFIED BY MANUFACTURER.

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

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:IN WELDING, PREC SHOULD BE TAKEN FOR AIRBORNE CONTAM WHICH MAY ORIGINATE FROM COMPONENTS OF THE WELDING ROD. ARC OR SPARK GENERATED WHEN (SUPP DATA)
Other Precautions:NONE SPECIFIED BY MANUFACTURER.

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

Respiratory Protection:NIOSH/MSHA APPROVED DUST AND FUME, RESPIRATOR SHOULD BE USED TO AVOID EXCESSIVE INHALATION OF PARTICULATES WHEN EXPOSURE EXCEEDS TLV'S.
Ventilation:LOCAL EXHAUST VENT SHOULD BE USED WHEN WELDING, BURNING, SAWING, BRAZING, GRINDING, OR MACHINING WHEN EXP EXCEEDS TLV'S.
Protective Gloves:NONE SPECIFIED BY MANUFACTURER.
Eye Protection:CHEMICAL WORKERS GOGGLES .
Other Protective Equipment:OTHER PROTECTIVE EQUIPMENT SHOULD BE UTILIZED AS REQUIRED BY THE WELDING STANDARDS.
Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.
Supplemental Safety and Health
EFTS OF OVEREXP: TO PULM CARCINOGENS. EXP TO HIGH CONC OF DUST/FUMES OF CR OR NI CAN CAUSE SENS DERMATITIS, INFLAM &/OR ULCERATION OF UPPER RESP TRACT & POSSIBLE CANCER OF NASAL PASSAGES & LUNGS. HNDL G/STOR PREC: WELDING OR BURNING COULD BE A SOURCE OF IGNITION FOR COMBUSTIBLE AND FLAMMABLE MATERIALS.

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

HCC:N1
Melt/Freeze Pt:M.P/F.P Text:>2300F
Spec Gravity: 7
Appearance and Odor:GRAY-BLACK, ODORLESS SOLID.

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

Stability Indicator/Materials to Avoid:YES
REACTS WITH STRONG ACIDS TO PRODUCE HYDROGEN GAS.
Stability Condition to Avoid:NONE SPECIFIED BY MANUFACTURER.
Hazardous Decomposition Products:METALIC DUST OR FUMES MAY BE PRODUCED DURING WELDING, BURNING, GRINDING AND POSSIBLY MACHINING.

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

Waste Disposal Methods:ACCORDING TO LOCAL, STATE AND FEDERAL REGULATIONS.