

A.M.CASTLE & CO. -- STAINLESS STEEL -- 9530-00D004848

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

Product ID:STAINLESS STEEL
MSDS Date:11/25/1985
FSC:9530
NIIN:00D004848
MSDS Number: BYTJB
=== Responsible Party ===
Company Name:A.M.CASTLE & CO.
Address:3400 N. WOLF ROAD
Box:NONE
City:FRANKLIN PARK
State:IL
ZIP:60131
Country:US
Info Phone Num:312-445-7111
Emergency Phone Num:312-455-7111 DAY 312-455-8986 NIGHT
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
Company Name:DRESSER INDUSTRIES, INSTRUMENT DIV.
Address:250 E MAINT ST
Box:City:STRATFORD
State:CT
ZIP:06497-5145
Country:US
Phone:203-385-0472
CAGE:38056

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

Ingred Name:NIOBIUM (ALSO CALLED COLUMBIUM)
CAS:7440-03-1
Fraction by Wt: <2%
Other REC Limits:NONE RECOMMENDED

Ingred Name:NITROGEN
CAS:7727-37-9
RTECS #:QW9700000
Fraction by Wt: <2%
Other REC Limits:NONE RECOMMENDED
ACGIH TLV:ASPHYXIAN; 9495

Ingred Name:TIN
CAS:7440-31-5
RTECS #:XP7320000
Fraction by Wt: <2%
Other REC Limits:NONE RECOMMENDED

OSHA PEL:2 MG/M3
ACGIH TLV:2 MG/M3; 9495

Ingred Name:IRON
CAS:7439-89-6
RTECS #:NO4565500
Fraction by Wt: 60-88%
Other REC Limits:NONE RECOMMENDED

Ingred Name:CHROMIUM (SARA 313) (CERCLA)
CAS:7440-47-3
RTECS #:GB4200000
Fraction by Wt: 10-30%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:1 MG/M3
ACGIH TLV:0.5 MG/M3; 9495
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:NICKEL (SARA 313) (CERCLA)
CAS:7440-02-0
RTECS #:QR5950000
Fraction by Wt: 0-27%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3; 9495

Ingred Name:MANGANESE (SARA 313)
CAS:7439-96-5
RTECS #:OO9275000
Fraction by Wt: <6%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:C 5 MG/M3 DUST
ACGIH TLV:5 MG/M3 DUST 9495

Ingred Name:MOLYBDENUM
CAS:7439-98-7
RTECS #:QA4680000
Fraction by Wt: <6%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:10 PPM.
ACGIH TLV:10 PPM.

Ingred Name:COPPER (SARA 313) (CERCLA)
CAS:7440-50-8
RTECS #:GL5325000
Fraction by Wt: <6%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:0.1MG/M3 FUME/1 DUST
ACGIH TLV:0.2 MG/M3 FUME; 9495
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:TITANIUM,
CAS:7440-32-6
RTECS #:XR1700000
Fraction by Wt: <6%

Other REC Limits:NONE RECOMMENDED

Ingred Name:PHOSPHORUS, AMORPHOUS, RED
CAS:7723-14-0
RTECS #:TH3495000
Fraction by Wt: <2%
Other REC Limits:NONE RECOMMENDED
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:SULFUR
CAS:7704-34-9
RTECS #:WS4250000
Fraction by Wt: <2%
Other REC Limits:NONE RECOMMENDED

Ingred Name:SILICON
CAS:7440-21-3
RTECS #:VW0400000
Fraction by Wt: <2%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:15 MG/M3 TDUST
ACGIH TLV:10 MG/M3 TDUST; 9495

Ingred Name:CARBON
Fraction by Wt: <2%
Other REC Limits:NONE RECOMMENDED

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

LD50 LC50 Mixture:PRODUCT'S LD50 (ORAL RAT) WAS NOT STATED
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:YES IARC:NO OSHA:NO
Health Hazards Acute and Chronic:STEEL PRODUCTS IN THE NATURAL STATE DO NOT PRESENT AND INHALATION, INGESTION OR CONTACT HAZARD. HOWEVER OPERATIONS SUCH AS BURNING, WELDING, SAWING, BRAZING & GRINDING MAY RELEASE FUMES &/OR DUSTS WHICH MAY PRESENT HEALTH HAZARDS IF TLV'S ARE EXCEEDED. CHRONIC INHALATION MAY LEAD TO SIDEROSIS.
Explanation of Carcinogenicity:EPIDEMIOLOGICAL STUDIES OF WORKERS MELTING & WORKING W/NICKEL & CHROMIUM CONTAINING ALLOYS ARE NOT AT INCREASED RISK.
Effects of Overexposure:METAL FUME FEVER (FROM INHALATION OF IRON):METALLIC TASTE IN MOUTH, DRY IRRITATED THROAT, CHILLS, FLU-LIKE SYMPTOMS.
Medical Cond Aggravated by Exposure:MFR GAVE NO INFORMATION ON MSDS.

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

First Aid:IF EXPOSED TO EXCESSIVE LEVELS OF METAL FUMES, REMOVE TO FRESH AIR, SEEK MEDICAL AID IMMEDIATELY. EYES - FLUSH W/WATER FOR AT LEAST 15 MIN.

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

Fire Fighting Procedures:STEEL PRODUCTS IN THE SOLID STATE PRESENT NOT FIRE OR EXPLOSION HAZARD.

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

Spill Release Procedures:MFR GAVE NO INFORMATION ON MSDS.
Neutralizing Agent:MFR GAVE NO INFORMATION ON MSDS.

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

Handling and Storage Precautions:IN WELDING, PRECAUTIONS SHOULD BE
TAKEN FOR AIRBORNE CONTAMINANTS WHICH MAY ORIGINATE FROM COMPONENTS
OF THE WELDING ROD.
Other Precautions:ARC OR SPARK GENERATED WHEN WELDING OR BURNING COULD
BE A SOURCE OF IGNITION FOR COMBUSTIBLE & FLAMMABLE MATERIALS.

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

Respiratory Protection:NIOSH/MSHA - APPROVED DUST & FUME RESPIRATOR
SHOULD BE USED TO AVOID EXCESSIVE INHALATION OF PARTICULATES WHEN
EXPOSURE EXCEEDS TLV'S.
Ventilation:USE LOCAL VENTILATION WHEN WELDING, BURNING, SAWING,
BRAZING, GRINDING OR MACHINING WHEN EXPOSURE EXCEEDS TLV'S.
Protective Gloves:MFR GAVE NO INFORMATION ON MSDS.
Eye Protection:SAFETY GLASSES OR GOGGLES
Other Protective Equipment:OTHER PROTECTIVE EQUIPMENT SHOULD BE
UTILIZED AS REQUIRED BY THE WELDING STANDARDS.
Work Hygienic Practices:MFR:? HMIS:USE GOOD INDUSTRIAL HYGIENE
PRACTICES FOR WELDING. MINIMIZE CONTACT & WASH THOROUGHLY AFTER
HANDLING.
Supplemental Safety and Health
THIS MSDS COVERS TYPES 3XX SERIES, 4XX SERIES.

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

HCC:N1
NRC/State Lic Num:NONE
Melt/Freeze Pt:M.P/F.P Text:>2500F,>137
Spec Gravity:APPROX. 7
Evaporation Rate & Reference:NEGLIGIBLE
Solubility in Water:NEGLIGIBLE
Appearance and Odor:GRAY-BLACK SOLID, NO ODOR

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

Stability Indicator/Materials to Avoid:YES
REACTS WITH STRONG ACID TO PRODUCE HYDROGEN GAS.
Hazardous Decomposition Products:METALLIC DUST OR FUMES MAY BE PRODUCED
DURING WELDING, BURNING, GRINDING & POSSIBLY MACHINING. SEE ANSI
Z49.1.
Conditions to Avoid Polymerization:MFR GAVE NO INFORMATION ON MSDS.

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

Waste Disposal Methods:DISPOSE I/A/W FEDERAL, STATE & LOCAL REGULATIONS

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