

# 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:ASPHYXIANT; 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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