

BOB MARTIN COMPANY -- HASTELLOY W -- 3439-00-063-5203

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

Product ID:HASTELLOY W

MSDS Date:04/01/1987

FSC:3439

NIIN:00-063-5203

MSDS Number: BCWXD

=== Responsible Party ===

Company Name:BOB MARTIN COMPANY

Address:2209 N SEAMAN AVENUE

City:SO. EL MONTE

State:CA

ZIP:91733

Info Phone Num:213-686-2220

Emergency Phone Num:213-686-2220

CAGE:JO950

=== Contractor Identification ===

Company Name:BOB MARTIN COMPANY

Address:2209 N SEAMAN AV

ENUE

Box:City:SO. EL MONTE

State:CA

ZIP:91733

Phone:213-686-2220

CAGE:JO950

Company Name:MARTIN BOB CO

Address:2209 N SEAMAN AVE

Box:City:SOUTH EL MONTE

State:CA

ZIP:91733-2630

Country:US

Phone:213-686-2220

CAGE:6K906

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

Ingred Name:COBALT (SARA III)

CAS:7440-48-4

RTECS #:GF8750000

Fraction by Wt: 2.5% MAX

OSHA PEL:0.1 MG/M3;AS CO

ACGIH TLV:0.05 MG/M3;DUST 9293

Ingred Name:CHROMIUM (SARA III)

CAS:7440-47-3

RTECS #:GB4200000

F

raction by Wt: 5.0%
OSHA PEL:1 MG/M3
ACGIH TLV:0.5 MG/M3; 9192
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:IRON OXIDE
CAS:1309-37-1
RTECS #:NO7400000
Fraction by Wt: 6.0%
OSHA PEL:10 MG/M3 (FE)
ACGIH TLV:5 MG/M3(FE),B2; 9293

Ingred Name:MANGANESE (SARA III)
CAS:7439-96-5
RTECS #:OO9275000
Fraction by Wt: 1.0% MAX
Other REC Limits:1.0MG/M3(FUME),ACGIH
OSHA PEL:(C) 5 MG/M3 DUST
ACGIH TLV:5 MG/M3 DUST 9293

Ingred Name:MOLYBDENUM
CAS:7439-98-7
RTECS #:QA4680000
Fraction by Wt: 24%
OSHA PEL:15
MG/M3 TDUST
ACGIH TLV:10 MG/M3; 9293

Ingred Name:NICKEL (SARA III)
CAS:7440-02-0
RTECS #:QR5950000
Fraction by Wt: 63.0%
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3; 9192

Ingred Name:SILICON
CAS:7440-21-3
RTECS #:VW0400000
Fraction by Wt: 1.0% MAX
Other REC Limits:5.0MG/M3;RESP. DUST
OSHA PEL:15 MG/M3 TDUST
ACGIH TLV:10 MG/M3 TDUST; 9293

Ingred Name:VANADIUM (SARA III)
CAS:7440-62-2
RTECS #:YW1355000
Fraction by Wt: 0.6% MAX
Other REC Limits:ABOVE FIG.FOR V*2O*5
OSHA PEL:C,0.5 MG V2O5/M3 RD
ACGIH TL

Ingred Name:GRAPHITE, SYNTHETIC
CAS:7440-44-0
RTECS #:FF5250100
Fraction by Wt: 0.12%
OSHA PEL:15 MG/M3 TDUST
ACGIH TLV:2 MG/M3 TDUST; 9293

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES
Health Hazards Acute and Chronic:ACUTE:METALLIC TASTE,NAUSEA,CHEST
TIGHTNESS,FEVER,DIZZINESS,DRYNESS,EYES,NOSE,THROAT
IRRITATION,ALLERGIC SKIN
REACTIONS,IRRITATION & DERMATITIS.
CHRONIC:BRONCHIAL ASTHMA,LUNG FIBROSIS,PNEUMOCONIOSIS.L UNG
CANCER(CR & NI EXPOSURE).CNS DEPRESSION(MN EXPOSURE),GI
DISORDERS(FE EXPOSURE).
Explanation of Carcinogenicity:CHROMIUM VI IS A HUMAN CARCINOGEN.
CHROMIUM III IS A SUSPECTED HUMAN CARCINOGEN. NICKEL IS A SUSPECTED
HUMAN CARCINOGEN.
Effects of Overexposure:SEE HEALTH HAZARDS.
Medical Cond Aggravated by Exposure:AGGRAVATION OF EXISTING RESPIRATORY
OR ALLERGIC CONDITIONS.HIGHER LEV
EL OF LUNG RELATED PROBLEMS AMONG
SMOKERS.SCREEN INDIVIDUALS WITH NERVOUS,CIRCULATORY,BLOOD OR KIDNEY
CONDITIONS.

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

First Aid:REMOVE FROM EXPOSURE AND OBTAIN PROMPT MEDICAL ATTENTION.IF
NOT BREATHING,GIVE CPR.IF UNCONSCIOUS,GIVE OXYGEN;SKIN:WASH WITH
SOAP & WATER,IF IRR.PERSISTS,SEE DOCTOR;EYES:FLUSH WITH LARGE
AMOUNTS OF WA TER.IF IRR.PERSISTS,SEE DOCTOR.DO NOT WEAR CONTACT
LENSES;INGESTION:DRINK LARGE
QUANTITIES OF WATER.INDUCE VOMIT,SEE
DOCTOR IMMEDIATELY.

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

Extinguishing Media:USE MEDIA APPROPRIATE FOR SURROUNDING FIRE.
Fire Fighting Procedures:IF THIS MATERIAL IS REDUCED TO POWDER
FORM,CAUTION MUST BE USED TO PREVENT FIRE OR EXPLOSION. TO
EXTINGUISH USE DRY SAND,DRY GRAPHITE,OR OTHER CLASS"D"EXTINGSHR
Unusual Fire/Explosion Hazard:WELDING ARCS AND SPARKS CAN IGNITE
COMBUSTIBLE PRODUCTS

=====

Accidental Release Measures =====

Spill Release Procedures:IF IN SOLID FORM,SWEEP UP & PLACE IN APPROPRIATE DISPOSAL CONTAINER.IF IN POWDER FORM,VACUUM WITH HIGH EFF. PARTICULATE FILTRATION SYSTEM.MINIMIZE AIRBORNE GENERATION OF POWDER & AVOID WATER CONTAMINATION & PLACE IN APPROPRIATE DISPOSAL CONTAINER.

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

Other Precautions:TRAIN WELDER TO KEEP HIS HEAD OUT OF THE FUMES. MONITOR AIR TO ENSURE ACCEPTABLE EXPOSURES. AVOID ELECTRICAL SHOCK BY MAINTAINING DRY WORK AREA.

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

Respiratory Protection:FUME RESPIRATOR OR AIR SUPPLIED RESPIRATOR IN CONFINED SPACES OR WHERE VENTILATION DOES NOT KEEP EXPOSURE BELOW TLV.
Ventilation:LOCAL EXHAUST TO MAINTAIN BELOW TLV.
Protective Gloves:WELDER'S GLOVES
Eye Protection:HELMET OR FACE SHIELD WITH FILTER LENS
Other Protective Equipment:SUBSTANTIAL DARK CLOTH,ARM PROTECTOR,APRON,HAT,SHOULDER PROTECTION.
Work Hygienic Practices:WASH HANDS THOROUGHLY BEFORE EATING,SMOKING,USING SANITARY FACILITIES.
Supplemental Safety and Health
MSDS INFORMATION OBTAINED FROM MSDS BY CABOT OF 01NOV85,CAGE 7T173.

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

HCC:N1
Melt/Freeze Pt:M.P/F.P Text:2400F,1316C
Spec Gravity:9.0
Solubility in Water:INSOLUBLE
Appearance and Odor:WELDING ROD,NO ODOR
Percent Volatiles by Volume:NONE

===== Stability

and Reactivity Data =====

Stability Indicator/Materials to Avoid: YES
MINERAL ACIDS & OXIDIZING AGENTS WHICH MAY GENERATE HYDROGEN GAS, WHICH IS EXPLOSIVE.
Hazardous Decomposition Products: FUMES OF METALS AND METAL OXIDES, CO, NO₂, O₃.

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

Waste Disposal Methods: DISPOSE OF FUMES, FLUX OR WELD GRINDING RESIDUE FROM THE WORK AREA OR FROM FILTERS IAW ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

Disclaimer (provided with this information by the compiling agencies):
This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.