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HAYNES INTERNATIONAL INC SUB OF CABOT CORP -- PN#:188 ALLOY,H2071-1 CORRO RESIST ALLOYS & HEAT RESIST ALLO -- 3439-01-149-0529

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

Product ID:PN#:188 ALLOY,H2071-1 CORRO RESIST ALLOYS & HEAT RESIST ALLO

MSDS Date:09/01/1993

FSC:3439

NIIN:01-149-0529

MSDS Number: CHMFC === Responsible Party ===

Company Name: HAYNES INTERNATIONAL INC SUB OF CABOT CORP

Address:1020 W PA

**RK AVE** Box:9013 City:KOKOMO

State:IN

ZIP:46902-9013 Country:US

Info Phone Num:317-456-6000 / FAX 317-456-6905

Emergency Phone Num:317-456-6000

CAGE:80357

=== Contractor Identification ===

Company Name: HAYNES INTERNATIONAL INC SUB OF CABOT CORP

Address:1020 W PARK AVE

Box:9013 City:KOKOMO State:IN

ZIP:46904-9013 Country:US

Phone:318-263-2002:765-456-6614

CAGE:80357

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

Ingred Name: COBALT (SARA 313)

CAS:7440-48-4

RTECS #:GF8750000 Fraction by Wt: 39%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:0.1 MG/M3

ACGIH TLV:0.02 MG/M3; A3; 9596

Ingred Name: CHROMIUM (SARA 313) (CERCLA)

CAS:7440-47-3

RTECS #:GB4200000 Fraction by Wt: 2%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:1 MG/M3

ACGIH TLV:0.5 MG/M3; 9596

EPA Rpt Qty:1 LB DOT Rpt Qty:1 LB

Ingred Name:IRON

CAS:7439-89-6

RTECS #:NO4565500 Fraction by Wt: 3% MAX

Other REC Limits: NONE RECOMMENDED

## **MMENDED**

Ingred Name: MANGANESE (SARA 313)

CAS:7439-96-5

RTECS #:OO9275000 Fraction by Wt: 1.25% MX

Other REC Limits: NONE RECOMMENDED

OSHA PEL:C, 5 MG/M3 (FUME) ACGIH TLV:0.2 MG/M3; 9596

Ingred Name:NICKEL (SARA 313) (CERCLA)

CAS:7440-02-0

RTECS #:QR5950000 Fraction by Wt: 22%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:1 MG/M3

ACGIH TLV:1 MG/M3; 9596

Ingred Name: SILICON

CAS:7440-21-3

RTECS #:VW0400000 Fraction by Wt: 0.35%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:15 MG/M3 TDUST

ACGIH TLV:10 M G/M3 TDUST; 9596

Ingred Name:TUNGSTEN, AS W, SOLUBLE COMPOUNDS.

CAS:7440-33-7

RTECS #:YO7175000 Fraction by Wt: 14%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:NOE ESTABLISHED ACGIH TLV:1 MG/M3/3 STEL; 9596

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER. Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES

Health Hazards Acute and Chronic:INHAL:METAL DUST/FUME/POWD

## **ER FRM**

OPERATIONS WHICH GENERATE AIRBORNE METAL PARTICU DURING MATLS USE.INGEST:HAND/CLOTH/FOOD/DRINK CONTACT W/METAL DUST/FUME/POWDER CAN CAUSE PARTICU INGEST DURING HAND TO MOUTH ACTIVITES(DRINK/SMOKE/NAIL BITING,ETC.)SKIN:CONTACT MAY CAUSE IN SOME SENS PEOPLE ALLERGIC RESPON IF (SIGN/SYMPT)

Explanation of Carcinogenicity:PER MSDS:NI,NI CMPD,CHROMIUM,HEXAVALENT CR,COBALT.CA PROP 65.

Effects of Overexposure:HEALTH:CHROME/CO/CU/NI PRESENT.METAL DUST/POWDER CONTACT/AB

RASION MAY CAUSE IRRIT/DERM.EYE:PARTICU METAL

MAY BE DANGEROUS TO EYE/SURROUND TISSUE.AIRBORNE PARTICU POT PROBLEMS.IRRIT SKIN/EYE/MUC MEMB.A LLERGIC SKIN RX,ABRADES SKIN CAUSE IRRIT/DERM,EYE IRRIT/MECHAN INJURY TO CORNEA/CONJ.RESP IRRIT,COUGH,BRONCHITIS,(SUPPL)

Medical Cond Aggravated by Exposure:THOSE W/ALLERGIC RX/SENS TO METALS(CR,CU,CO,NI)MAY ENCOUNTER RASH/DERM.THOSE W/IMPAIRE PULM FUNCTION,AIRWAY DISEASES,CONDITIONS(ASTHMA/EMPHYSEMA/ETC)INCUR FURTHER DISABIL.CN

S/CIR/BLOOD/KID DMG/DISEASE

======================================	First Aid Measures	
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First Aid:INHAL:BREATH DIFFI MOVE TO FRESH AIR.STOP BREATH PERFORM ART RESP,GET MED ASSIST @ONCE.INGEST:SWALLOW LG QUANT OF WATER,ATTEMPT TO INDUCE VOMIT IF CONSC.GET MED ASSIST @ONCE.SKIN:CUT/ABRASION TREAT BY STD 1STAID:CONTAM REMOVE BY WASHING W/SOAP/WATER.IRRIT PERSIST GET MED ASSIST.EYE:FLUSH W/COP AMTS OF CLEAN WATER.IRRIT PERSIST GET MED ASSIST.SHOULDNT WEAR CONTACT LENS IF WORK W/METAL DUST/POWEDER.

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

Flash Point:NONE

Autoignition Temp:Autoignition Temp Text:NP

Lower Limits:NONE Upper Limits:NONE

Extinguishing Media:THESE ALLOYS ARE NON-COMBUSTIBLE.USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.

Fire Fighting Procedures:THESE MATL REDUCE TO POWDER FORM, CAUT MUST BE USED TO PREVENT FIRE/EXPLO.TO EXTINGUISH METAL POWDER FIRE USE DRY SAND/DRY GRAPHITE/OTHER CLASS D FIRE

## **EXT POWDER** Unusual Fire/Explosion Hazard: NO UNUSUAL FIRE/EXPLO HAZ ARE ASSOCIATED WITH THESE MATLS.

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

Spill Release Procedures: SOLID FORM POSE NO SPECIAL CLEANUP PROBLEMS.POWDER/DUST FORM CLEANUP SHOULD BE CONDUCTED W/VAC SYS UTILIZING HI EFFICIENCY PARTICU AIR FILTR SYS.CAUT SHOULD BE TAKEN TO MIN AIRBORNE GENERATION OF POWD ER/DUST.AVOID CONTAM OF AIR/WATER.PROPERLY LABEL.

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions: HNDL ACCORDING TO SIZE/SHAPE/QUANT INVOLVE-HOLST, CRANE, ETC. POWDER MOVE/TRANSPO TO MIN SPILL/RELEASE-STORE IN DRY AREA, NOT ADJAC TO MINEARAL ACIDS/IGN Other Precautions: EXPO TO ELEMENTS CAN BE BEST DERMINED BY HAVING AIR SMPLS TAKE IN EMPLOYEE BREATH ZONE/WORK AREA/DEPT.LUNG FUNCITON TEST/CHEST X-RAYS/ROUTINE PHYS EXAMS MAY BE USEFUL TO DETERMINE DUST/FUME E

XPO EFFEC TS. CONTAINS SARA TITLE III CHEMS.

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

Respiratory Protection: USE NIOSH APPROV RESP AS SPEC BY INDUST HYG/QUAL SAF PROF.LUNG FUNCTION TESTS ARE RECOMMENDED FOR USERS OF NEGATIVE PRESSURE DEVICES.USE FUME RESP OR AIR SUPPLIED RESP WHERE LOC EXHU/VENTI DOENT KEEP EXPO BEL OSHA LIMITS FOR AIR CONTAM.

Ventilation:LOCAL EXHAUST VENTILATION SHOULD BE USED TO CONTROL EXPOSURE TO AIRBORNE DUST/FUME WHENEVER POSS IBLE.

Protective Gloves: GLOVES-PREVENT CUT/ABRASIONS

Eve Protection: SAF GLASSES

Other Protective Equipment:PROTECTIVE CLOTH SUCH AS UNIFORMS,DISPO COVERALL, SAF SHOES, ETC DURNING HNDLG OPERATIONS AS APPROP TO CIRCUMST OF EXPO.

Work Hygienic Practices: DANGER! INHAL OF DUST/FUME MAY CAUSE SERIOUS LUNG INJURY, SKIN/EYE/MUC MEMBRANE IRRIT MAY OCCUR.

Supplemental Safety and Health

IGN/SYMTP:CHILLS,FUME FEVER,ASTHMA-LIKE SYMPT.CHRONIC:SHORT BREATH,PERM DIABILITY DUE TO LOSS OF LUNG FUNCTI

DEPRESS,NASAL/BRONCHIAL/LUNG CANC,GI DISORDERS. DISPO:EMISIO NS,SPILL,RLEASE TO ENVIRO SHOULD BE CNTRL IMMED.IF SUCH POT EXISTS ADVISABLE TO DVLP EMERG SPILL RESPONSE PLAN.
========== Physical/Chemical Properties ============
HCC:N1 Boiling Pt:B.P. Text:NA Melt/Freeze Pt:M.P/F.P Text:2375F,-1337 Decomp Temp:Decomp Text:NP Vapor Pres:NA Vapor Density:NA Spec Gravity:0.324= DENS pH:NP Viscosity:NP Solubility in Water:NONE Appearance and Odor:SOLID-SILVER GRAY COLOR, NO ODOR Percent Volatiles by Volume:NONE Corrosion Rate:NP
========== Stability and Reactivity Data ===========
Stability Indicator/Materials to Avoid:YES AVOID CONTACT W/MINERAL ACIDS & OXIDIZING AGENTS WHICH MAY GENERATE HYDROGEN GAS:EVOLUTION OF HYDROGEN MAY BE EXPLO HAZ. Stability Condition to Avoid:NONE SPECIFIED BY MANUFACTURER. Hazardous Decomposition Products:VAR ELEMENTAL METALS/METAL OXIDES MAY BE GENRATED FROM WELD/CUT/GRIND/MELT /GROSS HNDLG OPERATINS.
======== Disposal Considerations ============
Waste Disposal Methods:DISPO OF WASTE MATL IAW STATE/FED REGS.SPEC LABEL/PKG/STORAGE/TRANSPO/DISPO PROCEDURES COTACT ENVIRO ENGINEER OR CONSULTANT FAMILIAR W/WASTE DISPO REGS.SOLID FORM NO SPEC ENVIRO PROBLEMS.METAL POWDER/ DUST SIGNIF IMPACE ON AIR/H2O QUAL.AIRBORNE(SUPPL)

ON,BIROSIS,EFFECTS ON HEART,CNS

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