

HAYNES INTERNATIONAL INC SUB OF CABOT CORP -- R-41 WELDING ROD -- 3439-00-146-3779  
===== Product Identification =====

Product ID:R-41 WELDING ROD  
MSDS Date:05/01/1989  
FSC:3439  
NIIN:00-146-3779  
MSDS Number: BKSHP  
=== Responsible Party ===  
Company Name:HAYNES INTERNATIONAL INC SUB OF CABOT CORP  
Address:1020 W PARK AVE  
Box:9013  
City:KOKOMO  
State:IN  
ZIP:46902-9013  
Country:US  
Info Phone Num:317-456-662  
5  
Emergency Phone Num:317-456-6894  
CAGE:80357  
=== Contractor Identification ===  
Company Name:ASTROLITE ALLOYS DIV OF ASTRO METALLUGICAL  
Address:709 VIA ALONDRA  
Box:City:CAMARILLO  
State:CA  
ZIP:93010-8714  
Country:US  
Phone:805-484-3621  
CAGE:2R602  
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:NICKEL (SARA III)  
CAS:7440-02-0  
RTECS #:QR5950000  
Fraction by Wt: 52%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3; 9192

Ingred Name:COBALT (SARA III)  
CAS:7440-48-4  
RTECS #:GF8750000  
Fraction by Wt: 11%  
Other REC Limits:NONE SPECIFIED  
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  
Fraction by Wt: 19%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:1 MG/M3  
ACGIH TLV:0.5 MG/M3; 9192  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:MOLYBDENUM  
CAS:7439-98-7  
RTECS #:QA4680000  
Fraction by Wt: 10%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:15 MG/M3 TDUST  
ACGIH TLV:10 MG/M3; 9293

Ingred Name:IRON  
CAS:7439-89-6  
RTECS #:NO4565500  
Fraction by Wt: 5.0%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:10 MG/M3(IRON OXIDE)  
ACGIH TLV:5 MG/M3 (IRON OXIDE)

Ingred Name:SILICON  
CAS:7440-21-3  
RTECS #:VW0400000  
Fraction by Wt: 0.5%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:15 MG/M3 TDUST  
ACGIH TLV:10 MG/M3 TDUST; 9293

Ingred Name:MANGANESE (SARA III)  
CAS:7439-96-5  
RTECS #:OO9275000  
Fraction by Wt: 0.1%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:(C) 5 MG/M3 DUST  
ACGIH TLV:5 MG/M3 DUST 9293

Ingred Name:ALUMINUM (SARA III)  
CAS:7429-90-5  
RTECS #:BD0330000  
Fraction by Wt: 1.5%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:15MG/M3 DUST/5 FUME  
ACGIH TLV:10MG/M3 DUST; 9192

Ingred Name:TITANIUM, METAL  
CAS:7440-32-6  
RTECS #:XR1700000  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:10 MG/M3 (TIO2)  
ACGIH TLV:10 MG/M3 (TIO2)

Ingred Name:BORON (TOTAL) AS BORON OXIDE  
Fraction by Wt: 0.006%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:10 MG/M3  
ACGIH TLV:10 MG/M3

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

LD50 LC50 Mixture:TLV FOR WELDING FUMES IS 5 MG/M3  
Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO  
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO  
Health Hazards Acute and Chronic:ACUTE: FUMES AND GASES CAN CAUSE EYES  
AND UPPER RESPIRATORY SYSTEM IRRITATION, AND CENTRAL NERVOUS SY  
STEM  
EFFECTS. ARC RAYS CAN INJURE EYES AND BURN SKIN. ELECTRIC SHOCK CAN  
KILL. NOISE CAN DAMAGE HEARING. CHRONIC: NEUROLOGICAL DAMAGE, LUNG  
FIBROSIS, PNEUMOCONIOSIS.  
Explanation of Carcinogenicity:NICKEL AND CHROMIUM ARE LISTED UNDER  
IARC AND NTP.  
Effects of Overexposure:SHORT TERM EXPOSURE: NAUSEA, FEVER, DIZZINESS,  
DRYNESS, IRRITATION OF EYES, NOSE AND THROAT, SKIN SENSITIVITY.  
ACUTE EXPOSURE: SAME SYMPTOMS TO HIGHER DEGREE AS WELL AS WATERY  
EYES, HEADACHE, BREATHING

N G DIFFICULTY, FREQUENT COUGHING, CHEST PAINS.

Medical Cond Aggravated by Exposure:AGGRAVATION OF EXISTING RESPIRATORY OR ALLERGIC CONDITIONS.HIGHER LEVEL OF LUNG RELATED PROBLEMS AMONG SMOKERS.

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

First Aid:INHALATION: REMOVE FROM EXPOSURE. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IF NOT BREATHING, GIVE CPR. IF NO DETECTABLE PULSE, GIVE HEART MASSAGE. EYES: FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. SKIN: WASH WITH SOAP AND WATER. INGESTION: SEEK MEDICAL ATTENTION.

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

Extinguishing Media:NON-FLAMMABLE. USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.

Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. EVACUATE AREA. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.

Unusual Fire/Explosion Hazard:COMBUSTION OR HEAT OF FIRE MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS AND VAPORS.

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

Spill Release Procedures:CLEAN UP ANY GRINDING DUST OR WASTE RESIDUE AND PLACE IN APPROPRIATE DISPOSAL CONTAINER. AVOID INHALATION AND SKIN EXPOSURE.

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

Handling and Storage Precautions:STORE IN DRY AREA. ELECTRODES EXPOSED TO MOISTURE MAY EXPLODE VIOLENTLY IF USED. DRY MOIST RODS BY BAKING AT 300F FOR TEN HOURS.

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 KEEP BELOW TLV.

Protective Gloves:WELDER'S GLOVES.

Eye Pro

tection:HELMET OR FACE SHIELD WITH FILTER LENS.

Other Protective Equipment:SUBSTANTIAL DARK CLOTH, ARM PROTECTOR,  
APRON, HAT AND SHOULDER PROTECTION. AIR SAMPLING TO DETERMINE  
CORRECTIVE MEASURES

Work Hygienic Practices:WASH HANDS THOROUGHLY BEFORE EATING, SMOKING OR  
USING SANITARY FACILITIES.

Supplemental Safety and Health  
NONE.

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

HCC:N1

Spec Gravity:7-9

Solubility in Water:INSOLUBLE

Appearance and Odor:WELDING ROD

1/16 INCH DIAMETER BY 36 INCHES LONG.

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

Stability Indicator/Materials to Avoid:YES

Stability Condition to Avoid:MOISTURE.

Hazardous Decomposition Products:FUMES OF METALS AND METAL OXIDES FROM  
ELECTRODE AND BASE METAL, CARBON MONOXIDE, CARBON DIOXIDE, OZONE,  
NITROGEN OXIDES.

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

Waste Disposal Methods:CONSULT WITH YOUR LOCAL ENVIRONMENTAL OFFICER.  
DIS

POSE OF FUMES, FLUX OR WELD GRINDING RESIDUE FROM THE WORK AREA  
OR FROM FILTERS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL  
ENVIRONMENTAL REGULATIONS.

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