

ARCOS CORP WIRE DRAWING PLANT SUB OF ARCOS CORP -- COVERED WELDING ELECTRODES  
-- 3439-00-262-2688

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

Product ID:COVERED WELDING ELECTRODES

MSDS Date:11/15/1991

FSC:3439

NIIN:00-262-2688

MSDS Number: BQNNZ

=== Responsible Party ===

Company Name:ARCOS CORP WIRE DRAWING PLANT SUB OF ARCOS CORP

Address:1 ARCOS DRIVE

City:MT CARMEL

State:PA

ZIP:17851

Country:US

Info Pho

ne Num:717-339-5200

Emergency Phone Num:717-339-5200/800-424-9300(CHEMTREC)

CAGE:19270

=== Contractor Identification ===

Company Name:ARCOS ALLOYS DIVISION OF HOSKINS MFG. CO.

Address:#1 ARCOS DRIVE

Box:City:MT CARMEL

State:PA

ZIP:17851

Country:US

Phone:570-339-5200; 717-339-5200

CAGE:19270

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

Ingred Name:SPECIFIC PART NUMBER NOT KNOWN. PERCENTAGE SHOWN ARE A  
RANGE OF ALL POSSIBLE COMBINATIONS.

RTECS #:9999999ZZ

Ingred Name

:IRON

CAS:7439-89-6

RTECS #:NO4565500

Fraction by Wt: BALANCE

Other REC Limits:NONE RECOMMENDED

OSHA PEL:10 MG/M3(FE2O3 FUME)

ACGIH TLV:5 MG/M3 (FE2O3 FUME)

Ingred Name:CHROMIUM (SARA III)

CAS:7440-47-3

RTECS #:GB4200000

Fraction by Wt: 6-28%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:1 MG/M3

ACGIH TLV:0.5 MG/M3; 9293

EPA Rpt Qty:1 LB

DOT Rpt Qty:1 LB

Ingred Name:COPPER (SARA III)

CAS:7440-50-8

1 DUST  
ACGIH TLV:0.2MG/M3 FUME; 9293  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:MANGANESE (SARA III)  
CAS:7439-96-5  
RTECS #:OO9275000  
Fraction by Wt: 0-4.8%  
Other REC Limits:NONE RECOMMENDED  
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: 0-5.0%  
Other REC Limits:NONE RECOMMENDED  
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: 0  
.40-37%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3; 9293

Ingred Name:SILICA, CRYSTALLINE - FUSED  
CAS:60676-86-0  
RTECS #:VV7328000  
Fraction by Wt: 0-4.5%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:SEE TABLE Z3  
ACGIH TLV:0.1 MG/M3 RDUST;9293

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

LD50 LC50 Mixture:TLV FOR WELDING FUMES IS 5 MG/M3  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:N

O

Health Hazards Acute and Chronic:ACUTE: FUMES AND GASES CAN CAUSE EYES AND UPPER RESPIRATORY SYSTEM IRRITATION, AND CENTRAL NERVOUS SYSTEM EFFECTS. ARC RAYS CAN INJURE EYES AND BURN SKIN. ELECTRIC SHOCK CAN KILL. NOISE CAN DAMAGE HEARING. CHRONIC: NEUROLOGICAL DAMAGE, LUNG FIBROSIS, PNEUMOCONIOSIS. EXCESSIVE EXPOSURE CAN BE FATAL.

Explanation of Carcinogenicity:NICKEL AND CHROMIUM ARE LISTED UNDER IARC AND NTP. CRYSTALLINE SILICA IS LISTED UNDER IARC AND NTP.

Effects of Over

exposure:SHORT TERM EXPOSURE: NAUSEA, FEVER, DIZZINESS, DRYNESS, IRRITATION OF EYES, NOSE AND THROAT, SKIN SENSITIVITY, WATERY EYES, HEADACHE, BREATHING DIFFICULTY, FREQUENT COUGHING, SHORTNESS OF BREATH.

Medical Condition 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. IN CASE OF ELECTRICAL SHOCK, TURN OFF POWER PRIOR TO ADMINISTERING FIRST AID.

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

Extinguishing Media:USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL.

Fire Fighting Procedures:

WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.

Unusual Fire/Explosion Hazard:ARCS, SPARKS AND MOLTEN METAL CAN IGNITE FLAMMABLES AND COMBUSTIBLES.

===== 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 Protection: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

Solubility in Water:INSOLUBLE.

Appearance and Odor:SOLID ROD WITH A FLUX COATING.

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

Stability Indicator/Materials to Avoid:YES  
NONE SPECIFIED BY MANUFACTURER.

Stability Condition to Avoid:NONE SPECIFIED BY MANUFACTURER.

Hazardous Decomposition Products:FUMES OF METALS AND METAL OXIDES FROM ELECTRODE AN

D BASE METAL, CARBON MONOXIDE, CARBON DIOXIDE, OZONE,  
NITROGEN OXIDES.

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

Waste Disposal Methods:CONSULT WITH YOUR LOCAL ENVIRONMENTAL OFFICER.  
DISPOSE OF FUMES, FLUX OR WELD GRINDING RESIDUE FROM THE WORK AREA  
OR FROM FILTERS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL  
ENVIRONMENTAL 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.