

ARCOS ALLOYS -- STAINLESS STEEL ALLOY, 309 -- 3439-01-190-0661

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

Product ID:STAINLESS STEEL ALLOY, 309

MSDS Date:06/08/1990

FSC:3439

NIIN:01-190-0661

MSDS Number: BVNGV

=== Responsible Party ===

Company Name:ARCOS ALLOYS

Address:#1 ARCOS DRIVE

City:MT CARMEL

State:PA

ZIP:17851

Country:US

Info Phone Num:717-339-5200

Emergency Phone Num:800-424-9300(CHEMTREC)

CAGE:GO

252

=== Contractor Identification ===

Company Name:ARCOS ALLOYS

Address:1 ARCOS DR

Box:308

City:MT CARMEL

State:PA

ZIP:17851-0308

Country:US

Phone:717-339-5200

CAGE:GO252

Company Name:ARCOS ALLOYS DIV OF HOSKINS MFG CO

Address:#1 ARCOS DRIVE

Box:308

City:MTCARMEL

State:PA

ZIP:17851

Country:US

Phone:717-339-5200, CHEMTREC 800-424-9300

CAGE:03805

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

Ingred Name:CHROMIUM; (CR)

CAS:7440-47-3

RTECS #:GB4200000

Fraction by Wt: 25%

OSH

A PEL:1 MG/M3  
ACGIH TLV:0.5 MG/M3  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:MANGANESE; (MN) (SARA III)  
CAS:7439-96-5  
RTECS #:OO9275000  
Fraction by Wt: 2.5%  
OSHA PEL:5 MG/M3 DUST, C  
ACGIH TLV:5 MG/M3 DUST

Ingred Name:NICKEL; (NI) (SARA III)  
CAS:7440-02-0  
RTECS #:QR5950000  
Fraction by Wt: 14%  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3

Ingred Name:IRON; (FE)  
CAS:7439-89-6  
RTECS #:NO4565500  
Fraction by Wt: BALANCE  
OSHA PEL:N/K  
ACGIH TLV:N/K

Ingred Name:SUPDAT:WELDING/HOT CUTTING ARE: ALUMINUM FUMES, CARBON MONOXIDE, CHROMIUM, CHROMIUM (CHROMATES), COBALT FUME, (ING 6)  
RTECS #:9999999ZZ

Ingred Name:NG 5:COPPER FUME, IRON OXIDE FUME, MANGANESE FUME, MOLYBDENUM, NICKEL, TUNGSTEN, NITROGEN DIOXIDE, OZONE, PHOSGENE.  
RTECS #:9999999ZZ

Ingred Name:EXPLAN OF CARCIN:HUMAN/ANIMAL:LUNG CANCER, SKIN ULCERS. NICKEL:IARC MONOGRAPHS ON EVAL OF CARCIN RISK OF CHEMS TO(ING 8)  
RTECS #:9999999ZZ

Ingred Name:ING 7:MAN, VOL 49, PG 257, 1990:GRP 2B. NTP 6TH ANNUAL REPORT ON CARCINOGENS, 1

991:ANTICIPATED TO BE CARCINOGEN. (ING 9)  
RTECS #:9999999ZZ

Inged Name:ING 8:HUMAN:LUNG, NASAL CAVITIES.  
RTECS #:9999999ZZ

Inged Name:EFTS OF OVEREXP:CHRONIC:EXPOS MAY RSLT IN NEUROLOGICAL DMG,  
LUNG FIBROSIS, PNEUMOCONIOSIS & OTHER LUNG DISEASES.  
RTECS #:9999999ZZ

Inged Name:RESP PROT:WORN, &/OR WORKER'S BRTHG ZONE TO DETERMINE IF  
RESP IS REQUIRED & TYPE NEEDED.  
RTECS #:9999999ZZ

Inged Name:VENT:KEEP EXPOSURE BELOW LIMITS SPECIFIED.  
RTECS #:9999999ZZ

Inged Name:EYE PROT:WHEN CU  
TTING, GRINDING/WELDING. IN ADDN, WHEN HOT  
CUTTING/WELDING, WEAR WELDING HELMET & FACE SHIELD W/(ING 14)  
RTECS #:9999999ZZ

Inged Name:ING 13:FILTER LENS. SELECT WELDING LENS SHADE FROM AWS  
PUBLICATION F2.2.  
RTECS #:9999999ZZ

Inged Name:OTHER PROT EQUIP:SCREENS TO SHIELD OTHERS.  
RTECS #:9999999ZZ

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.

Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO

Reports of Carc

inogenicity:NTP:YES IARC:YES OSHA:NO

Health Hazards Acute and Chronic:THIS PROD POSES NO HLTH HAZ AS

SHIPPED, BUT MAY POSE HLTH HAZ DURING USE. ELEC ARC WELDING RAYS  
CAN INJURE EYES & BURN SKIN. DUST, FUMES & GASES CAN BE DANGEROUS  
TO YOUR HLTH. LUNG DMG MAY RSLT FROM O VEREXP. ACUTE:SHORT TERM  
EXPOS TO WELDING FUMES, GASES/DUST MAY RSLT IN DISCOMFORT SUCH AS  
DIZZ, NAUS, (EFTS OF OVEREXP)

Explanation of Carcinogenicity:CHROMIUM:IARC MONOGRAPHS, VOL 49, PG 49,  
1990:GR

P 1. NTP 6TH ANNUAL RPT ON CARCINS, 1991:KNOWN TO BE CARCIN.  
(ING 7)

Effects of Overexposure:HLTH HAZ:FEVER, DRYNESS &/OR IRRIT OF NOSE,  
THROAT & EYES. SKIN SENSITIVITY MAY ALSO BE NOTED. ACUTE EXPOS CAN  
RSLT IN SAME SYMPS EXCEPT TO GREATER DEGREE AS WELL AS Watery Eyes,  
HDCH, BRTHG DFCLTY, F REQUENT COUGH &/OR CHEST PAINS. SOME TOX  
GASES MAY CAUSE PULM EDEMA, ASPHY & EXCESSIVE EXPOS CAN BE FATAL.  
(ING 10)

Medical Cond Aggravated by Exposure:SOME WORKERS MAY EXPERIENCE

DISCOMFORT AT CONCS BELOW TLVS & OTHERS MAY BE AFFECTED BY A  
PRE-EXISTING CONDITION OR OTHER OCCUP ILLNESS BECAUSE OF THE WIDE  
VARIATION IN INDIVIDUAL SUSCEPTIBILITIES.

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

First Aid:IN CASE OF ELEC SHOCK, TURN OFF POWER PRIOR TO REMOVAL FROM  
EXPOS AREA & ADMIN OF FIRST AID. INHAL:REMOVE TO FRESH AIR. IF  
BRTHG IS DFCLT ADMIN OXYGEN. IF NOT BRTHG BEGIN ARTF RESP. IF NO  
DETECTABLE P ULSE BEGIN EXTERNAL HEART M  
ASSAGE. SKIN:WASH AFFECTED  
AREA W/SOAP & WATER. EYES:FLUSH W/LG AMTS OF WATER FOR AT LST 15  
MINS. INGEST:SEEK MED ATTN. IN ALL CASES, SEEK MED ATTN FOR FIRST  
AID.

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

Flash Point:NONFLAMMABLE  
Extinguishing Media:MEDIA SUITABLE FOR SURROUNDING FIRE .  
Fire Fighting Procedures:USE NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE  
EQUIPMENT .  
Unusual Fire/Explosion Hazard:ARCS, SPARKS & MOLTEN METAL CAN IGNITE  
FLAMMABLES  
& COMBUSTIBLES OR CAUSE EXPLOSIONS.

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

Spill Release Procedures:CLEAN UP ANY GRINDING DUST OR WASTE RESIDUES &  
PLACE IN SUITABLE DOT APPROVED CONTAINERS. AVOID INHALATION & SKIN  
EXPOSURE.  
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:DO NOT EXPOSE SKIN TO RADIATION WHEN  
HOT CUTTING OR WELDING. AVOID INHALATION

## & SKIN EXPOSURE.

Other Precautions:REFER TO FOLLOWING SOURCES FOR ADDNL IMPORTANT INFO:

ANSI Z49.1, AWS, P.O. BOX 351040, MIAMI, FL 33135 OR OSHA (29 CFR  
1910) U.S. DEPT OF LABOR, WASHINGTON D.C. 20210.

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

Respiratory Protection:USE ONLY NIOSH/MSHA APPRVD RESPS. USE WELD FUME  
RESP/AIR SUPPLIED RESP WHEN CUTTING, GRINDING/WELDING IN CONFINED  
SPACE/WHERE LOC EXHST/GEN VENT DOSE NOT KEEP EXPOS BELOW REC LIMS.  
MON

ITOR AIR QUALITY INSIDE WELDER'S HELMET, IF (ING 11)

Ventilation:USE ENOUGH VENT WHEN CUTTING, GRINDING/WELDING TO KEEP  
DUST, FUMES & GASES FROM WORKERS BRTHG ZONE & GEN AREA. (ING 12)

Protective Gloves:WELDER'S GLOVES.

Eye Protection:USE OSHA APPRVD GOGGS & FCSHLD (ING 13)

Other Protective Equipment:EMER EYE WASH & DELUGE SHOWER . WEAR FLAME  
RETARDANT CLTHG WHEN CUTTING, GRINDING/WELDING. PROVIDE PROT (ING  
15)

Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.

Supplemental Saf

ety and Health

HAZ DECOMP PROD:CONTAMS IN ATM. DECOMP PRODS MAY INCL OXIDES OF METALS,  
CHROMATES & COMPLEX METALLICS. GASEOUS RXN PRODS MAY INCL CARBON  
MONOXIDE, OZONE & NITROGEN OXIDES. CHLORINATED SOLVS MAY BE DEC  
OMPOSED INTO TOX GASES SUCH AS PHOSGENE. FUMES & GASES MAY VARY IN  
FORM. KNOWN GASES & FUMES THAT MAY FORM DURING(ING 5)

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

Appearance and Odor:BARE FILLER METALS ARE A SOLID WIRE.

### =====

#### 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:COMPOSITION & QUALITY OF FUMES & GASES  
ARE DEPENDENT UPON METAL BEING WELDED, PROCS, PROCESSES, ELECTRODES  
USED,(SUPDAT)

### ===== Disposal Considerations =====

Waste Disposal Methods:DISPOSE OF IN FULL COMPLIANCE W/FEDERAL, STATE &  
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.