ARCOS ALLOYS DIVISION OF HOSKINS MFG. CO. -- STAINLESS STEEL ALLOYS, 317 -- 3439-01-067-0697

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

Product ID:STAINLESS STEEL ALLOYS, 317
MSDS Date:05/01/1994
FSC:3439
NIIN:01-067-0697
Status Code:A
MSDS Number: CKXXD
=== Responsible Party ===
Company Name:ARCOS ALLOYS DIVISION OF HOSKINS MFG. CO.
Address:#1 ARCOS DRIVE
City:MT CARMEL
State:PA
ZIP:17851
Country:US
Info
Phone Num:570-339-5200; 717-339-5200
Emergency Phone Num:800-424-9300 (CHEMTREC)
Resp. Party Other MSDS Num.:106
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:IRON (FE)
CAS:7439-89-6
RTECS #:NO4565500
Fraction by Wt: BALANCE
OSHA PEL:NONE
ACGIH T

LV:NONE

Ingred Name:CHROMIUM (CR)
CAS:7440-47-3
RTECS #:GB4200000
Fraction by Wt: 20.5%
OSHA PEL:1 MG/M3
ACGIH TLV:0.5 MG/M3
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:MANGANESE (MN)
CAS:7439-96-5
RTECS #:OO9275000
Fraction by Wt: 2.5%
OSHA PEL:5 MG/M3 CEILING
ACGIH TLV:5 MG/M3

Ingred Name:NICKEL (NI)
CAS:7440-02-0
RTECS #:QR5950000
Fraction by Wt: 15%
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3

Ingred Name:MOLYBDENUM
CAS:7439-98-7
RTECS #:QA4680000
= Wt:4.
ACGIH TLV:10 MG/M3

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO
Health Hazards Acute and Chronic:THIS PRODUCT POSES NO HEALTH HAZARD AS SHIPPED BUT MAY POSE A HEALTH HAZARD DURING USE. ELECTRIC ARC WELDING RAYS CAN INJURE EYES AND BURN SKIN. DUST, FUMES AND GASES CAN BE DANGEROUS TO YOUR HEALTH. LUNG DAMAGE MAY RESULT FROM OVEREXPOSURE. SECTIONS (INGREDIENTS AND REACTIVITY) LIST S

PECIFIC
HAZARDOUS INGREDIENTS, REACTION PRODUCTS AND OSHA PEL'S AND ACGIH TLV'S. PRIMARY ROUTE OF ENTRY: FUMES, GASES AND DUST CAN BE A HEALTH HAZARD THRU INHALATION. ACUTE EXPOSURE: SHORT TERM EXPOSURE TO WELDING FUMES, GASES OR DUST MAY RESULT IN DISCOMFORT SUCH AS DIZZINESS, NAUSEA, FEVER, DRYNESS AND/OR (S IGNS AND SYMPTOMS OF OVEREXPOSURE)

Explanation of Carcinogenicity:NICKEL: IARC GROUP 2B, VOL 49, PG 257, 1990. NTP 9TH ANNUAL REPORT ON CARCINOGENS.

Effects
of Overexposure:HEALTH HAZARDS ACUTE AND CHRONIC (CONT): IRRITATION OF NOSE, THROAT AND EYES. SKIN SENSITIVITY MAY ALSO BE NOTED. ACUTE EXPOSURE CAN RESULT IN THE SAME SYMPTOMS EXCEPT TO A GREATER DEGREE AS WELL AS W ATERY EYES, HEADACHE, BREATHING DIFFICULTY, FREQUENT COUGHING AND/OR CHEST PAINS. SOME TOXIC GASES MAY CAUSE PULMONARY EDEMA, ASPHYXIATION AND EXCESSIVE EXPOSURE CAN BE FATAL. CHRONIC EXPOSURE: CHRON IC EXPOSURE MAY RESULT IN NEUROLOGICAL DAMAGE, LUNG FI
BROSIS, PNEUMONCONIOSIS AND OTHER LUNG DISEASES. NICKEL AND CHROMIUM ARE CONSIDERED POSSIBLE CARCINOGENS UNDER OSHA (29 CFR 1910.1200). THE STUDIE S FORMING THE BASIS (TOXICOLOGICAL INFO)

Medical Cond Aggravated by Exposure:SOME WORKERS MAY EXPERIENCE DISCOMFORT AT CONCENS BELOW THE TLV & OTHERS MAY BE AFFECTED BY PRE-EXISTING CNDTNS OR OTHER OCCUPATIONAL ILLNESS BECAUSE OF WIDE VARIATION IN INDIVIDUAL SUSCEPTIBILITIES.

========== First Aid Measures ======
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First Aid:IN CASE OF ELECTRIC SHOCK, TURN OFF POWER PRIOR TO REMOVAL FROM EXPOSURE AREA AND ADMINISTRATION OF FIRST AID. INHALATION: REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT ADMINISTER OXYGEN. IF NOT BRE ATHING BEGIN ARTIFICIAL RESPIRATION. IF NO DETECTABLE PULSE BEGIN EXTERNAL HEART MASSAGE. SKIN: WASH AFFECTED AREA WITH SOAP AND WATER. EYES: FLUSH WITH LARGE AMOUNTS OF FRESH WATER FOR AT LEAST 15 MI NUTES. INGESTION: SEEK MEDICAL ATTENTION.

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

Flash Point:NONFLAMMABLE

Extinguishing Media:MEDIA SUITABLE FOR SURROUNDING FIRE .

Fire Fighting Procedures:USE NIOSH APPROVED SCBA AND FULL PROTECTIVE EQUIPMENT .

Unusual Fire/Explosion Hazard:NONFLAMMABLE; HOWEVER, ARCS, SPARKS AND MOLTEN METAL CAN IGNITE FLAMMABLES AND COMBUSTIBLES OR CAUSE EXPLOSIONS.

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

Spill Release Procedures:CLEAN UP ANY GRIND

ING DUST OR WASTE RESIDUES
AND PLACE IN SUITABLE DEPARTMENT OF TRANSPORTATION (DOT) APPROVED CONTAINERS AND DISPOSE OF IN FULL COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. A VOID INHALATION AND SKIN EXPOSURE.

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

Respiratory Protection:USE WELD FUME RESPIRATOR OR AIR SUPPLIED RESPIRATOR WHEN CUTTING, GRINDING OR WELDING IN A CONFINED SPACE OR WHERE LOCAL EXHAUST OR GENERAL VENTILATION DOES NOT KEEP EXP
OSURE
BELOW RECOMMENDED LIMITS. MONITOR THE AIR QUALITY INSIDE THE WELDER'S HELMET, IF WORN, AND/OR THE WORKER'S BREATHING ZONE TO DETERMINE IF A RESPIRATOR (SUPPLEMENTAL SAFETY AND HEALTH)
Ventilation:USE ENOUGH VENTILATION WHEN CUTTING, GRINDING OR WELDING TO KEEP DUST, FUMES AND GASES FROM THE WORKER'S BREATHING ZONE AND (SUPPLEMENTAL SAFETY AND HEALTH)
Protective Gloves:IMPERVIOUS GLOVES .
Eye Protection:USE OSHA APPROVED GOGGLES, GLASSES AND/OR FACE SHIELD (WORK HYG
ENIC PRACTICES)
Other Protective Equipment:ANSI APPROVED EYE WASH & DELUGE SHOWER . PROTECTIVE CLOTHING: WEAR GLOVES AND FLAME RETARDANT CLOTHING WHEN CUTTING, GRINDING OR WELDING. DO NOT EXPOSE SKIN TO (SUPPLEMENTAL SAFETY AND HEALTH)
Work Hygienic Practices:EYE PROTECTION (CONT): WHEN CUTTING, GRINDING OR WELDING. IN ADDITION, WHEN HOT CUTTING OR WELDING, WEAR WELDING HELMET OR FACE SHIELD WITH FILTER LENS. SELECT WELDING LENS SHADE FROM AWS PUB F2.2.
Supplemental Safe
ty and Health
RESP PROT (CONT): IS REQUIRED AND THE TYPE NEEDED. USE ONLY NIOSH APPROVED RESPIRATORS. VENTILATION (CONT): GENERAL AREA. KEEP EXPOSURE BELOW THE LIMITS SPECIFIED IN (INGREDIENTS AND REACTIVITY) SE CTIONS. OTHER PROT EQUIP (CONT): RADIATION WHEN HOT CUTTING OR WELDING. PROVIDE PROTECTIVE SCREENS TO SHIELD OTHERS.

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

HCC:T6
Appearance and Odor:BARE FILLER METALS ARE SOLID WIRE.

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

Stability Indicator/Materials to Avoid:YES
Hazardous Decomposition Products:WELDING AND HOT CUTTING FUMES AND GASES CANNOT BE CLASSIFIED SIMPLY. THEIR COMPOSITION AND QUANTITY ARE DEPENDENT ON THE METAL BEING WELDED, THE PROCEDURES, PROCESSES AND TYPE OF WIRE (ECOLOGICAL INFO)

========== Toxicological Information ==========

Toxicological Information:N/P. SIGNS AND SYMPTOMS OF OVEREXPOSURE (CONT): FOR
THIS CLASSIFICATION WERE FROM OPERATIONS OTHER THAN WELDING OF CHROMIUM OR NICKEL. THERE IS CONSIDERABLE CONTROVERSY ON THE EXTENT OF RESPIRA TORY CANCER PROBLEMS DUE TO NICKEL AND CHROMIUM. NEVERTHELESS EXPOSURES MUST BE MAINTAINED BELOW THE LEVELS SPECIFIED IN (INGREDIENTS AND REACTIVITY) SECTIONS.

========== Ecological Information ==========

Ecological:N/P. HAZARDOUS DECOMPOSITION PRODUCTS (CONT): OR ELECTRODES USED. OTHER INFLUENCING FACTOR
S ARE THE PRESENCE OF CONTAMINENTS IN THE ATMOSPHERE. DECOMPOSITION PRODUCTS FROM THE WELDING OR CUTT ING OPERATION INCLUDE THOSE FROM THE VOLATILIZATION, REACTION AND/OR OXIDATION OF THE MATERIALS IN (INGREDIENTS) SECTION AND MAY INCLUDE OXIDES OF THE METALS, CHROMATES AND COMPLEX METALLICS. GASEOUS REACTION PRODUCTS MAY INCLUDE CARBON MONOXIDE, OZONE AND NITROGEN OXIDES. CHLORINATED SOLVENTS MAY BE DECOMPOSED INTO TAXIC GASES SUCH AS PHOSGENE. WHEN ELECTRODES
ARE CONSUMED, THE FUME AND GAS DECO MPOSITION PRODUCTS (TRANSPORT INFO)

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

Waste Disposal Methods:DISPOSE OF IN FULL COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

========== MSDS Transport Information ==========

Transport Information:N/P. ECOLOGICAL INFO (CONT): GENERATED ARE DIFFERENT IN FORM FROM THE INGREDIENTS LISTED IN (INGREDIENTS) SECTION. NEW COMPOUNDS NOT IN THE ELECTRODE

S MAY FORM. THE KNOWN
GASES AND FUMES THAT MAY FORM DURING WELDING OR HOT CUTTING AND THEIR EXPOSURE LIMITS ARE NOTED IN THE FOLLOWING TABLE: ALUMINUM FUMES, CAS # 7429-90-5, PEL: 5 MG/M3, TLV: 5 MG/M3. CARBON MONOXIDE, CAS # 630-08-0, PEL: 55 MG/M3, CEILING LIMIT: 229 MG/M3, TLV: 29 MG/M3. CHROMIUM, CAS # 7440-47-3, PEL: 1 MG/M3, TLV: 0.5 MG/M3. CHROMIUM (CHROMATES), CAS # VARIES WITH COMPOUND, PEL CEILING: 0.1 MG/M3, TLV 0.05 MG/M3. (SARA III)

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======= Regulatory Information ==========

SARA Title III Information:N/P. TRANSPORT INFO (CONT): COBALT FUME (CO), CAS # 7440-48-4, PEL: 0.1 MG/M3, TLV: 0.05 MG/M3. COPPER FUME (CU), CAS # 7440-50-8, PEL: 0.1 MG/M3, TLV: 0.05 MG/M3. IRON OXIDE FUME (AS FE), CAS # 1309-37-1, PEL: 10 MG/M3, TLV: 5 MG/M3. MANGANESE FUME (MN), CAS # 7439-96-5, PEL CEILING: 5 MG/M3, TLV: 1 MG/M3. MOLYBDENUM (MO) (SOLUABLE), CAS # 7439-98-7, PEL: 5 MG/M3, TLV: 5 MG/M3. NIC
K EL (NI) (SOLUABLE), CAS # 7440-02-0,
PEL: 0.5 MG/M3, TLV: 0.1 MG/M3. TUNSTEN (W) (SOLUABLE), CAS # 7440-33-7, PEL: 1 MG/M3, STEL: 3 MG/M3, TLV: 1 MG/M3. NITROGEN DIOXIDE, PEL CEILING: 9 MG/M3, TLV: 5.6 MG/M3. (FEDERAL REGS)
Federal Regulatory Information:N/P. SARA III (CONT): OZONE,
CAS # 10028-15-6, PEL: 0.2 MG/M3, STEL: 0.6 MG/M3, TLV CEILING: 0.2 MG/M3. PHOSGENE, CAS # 75-44-5, PEL: 0.4 MG/M3, TLV: 0.4 MG/M3.
THE LIMIT FOR WELDING FUMES NOT OTHERWISE CLASS
IFIED IS 5 MG/M3.
SOME ELEMENTS OR COMPOUNDS WILL EXCEED THEIR PEL'S / TLV'S BEFORE THE TOTAL FUMES EXCEED 5 MG/M3.

========== Other Information ==========

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