

ALLOY RODS CORPORATION -- ATON ARC COVERED LOW HYDROGEN ELECTRODES --  
3439-00-587-2413

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

Product ID:ATON ARC COVERED LOW HYDROGEN ELECTRODES

MSDS Date:01/01/1987

FSC:3439

NIIN:00-587-2413

MSDS Number: BMDRY

=== Responsible Party ===

Company Name:ALLOY RODS CORPORATION

Address:1500 KAREN LN.

Box:517

City:HANOVER

State:PA

ZIP:17331

Country:US

Info Phone Num:717-637-8

911

Emergency Phone Num:717-637-8911

CAGE:84021

=== Contractor Identification ===

Company Name:ESAB GROUP INC

Address:801 WILSON AVENUE

Box:517

City:HANOVER

State:PA

ZIP:17331

Country:US

Phone:717-637-8911 OR 800-933-7070

CAGE:84021

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

Ingred Name:IRON

CAS:7439-89-6

RTECS #:NO4565500

Other REC Limits:NONE SPECIFIED

OSHA PEL:10MG/M3

ACGIH TLV:5 MG/M3 AS FE2O3

Ingred Name:CHROMIUM (SARA III)

CAS:7440-47-3

RTECS #:GB4200000

Other

REC Limits:NONE SPECIFIED  
OSHA PEL:0.5MG/M3  
ACGIH TLV:0.5 MG/M3; 9192  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

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

Ingred Name:COPPER (SARA III)  
CAS:7440-50-8  
RTECS #:GL5325000  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:0.1MG/M3 FUME/1 DUST  
ACGIH TLV:0.2MG/M3 FUME; 9192  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:SODIUM METASILICATE, ANHYDROUS  
CAS:6834-92-0

RTECS #:VV9275000  
Other REC Limits:NONE SPECIFIED

Ingred Name:CALCIUM CARBONATE (MARBLE) (LIMESTONE)  
CAS:1317-65-3  
RTECS #:EV9580000  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:15 MG/M3 TDUST  
ACGIH TLV:10 MG/M3 TDUST; 9192

Ingred Name:TITANIUM DIOXIDE  
CAS:13463-67-7  
RTECS #:XR2275000  
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  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:(C) 5 MG/M3 DUST  
ACG

IH TLV:5 MG/M3 DUST 9293

Ingred Name:NICKEL (SARA III)  
CAS:7440-02-0  
RTECS #:QR5950000  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3; 9192

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

Ingred Name:POTASSIUM SILICATE  
CAS:1312-76-1  
Other REC Limits:NONE SPECIFIED

Ingred Name:CALCIUM FLUORIDE  
CAS:7789-75-5  
RTECS #:EW1760000  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:2.5 MG/M3 AS F  
ACGIH  
TLV:2.5 MG/M3 AS F

Ingred Name:POTASSIUM ALUMINUM SILICATE (FELDSPAR)  
CAS:68476-25-5  
Other REC Limits:NONE SPECIFIED  
ACGIH TLV:2 MG/M3

Ingred Name:ZIRCONIUM(IV) SILICATE  
CAS:14940-68-2  
RTECS #:ZH9000000  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:5MG/M3 AS ZR  
ACGIH TLV:5MG/M3 AS ZR

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

LD50 LC50 Mixture:UNCLASSIFIED WELDING FUMES=5MG/M3 PEL  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:YES

IARC:YES OSHA:NO

Health Hazards Acute and Chronic:ACUTE: WELDING FUMES MAY RESULT IN DISCOMFORT SUCH AS: DIZZINESS, NAUSEA, OR DRYNESS AND IRRITATION OF NOSE, THROAT, OR EYES. CHRONIC: MAY LEAD TO SIDEROSIS (IRON DEPOSITS IN THE LUNG) AND IS BELIEVED TO AFFECT PULMONARY FUNCTIONS. ARC RAYS CAN INJURE EYES AND BURN SKIN. ELECTRIC SHOCK CAN KILL.

Explanation of Carcinogenicity:WELDING FUMES CANNOT BE CLASSIFIED SIMPLY. THEIR COMPOSITION ARE DEPENDENT UPON THE METAL BEING WELDED.

Effects of Overexposure:OVEREXPOSURE TO WELDING FUMES MAY RESULT IN DISCOMFORT SUCH AS: DIZZINESS, NAUSEA, OR DRYNESS AND IRRITATION OF NOSE, THROAT, OR EYES. LONG TERM OVEREXPOSURE MAY LEAD TO SIDEROSIS (IRON DEPOSITS IN THE LUNGS) AND IS BELIEVED TO AFFECT PULMONARY FUNCTIONS.

Medical Cond Aggravated by Exposure:AGGRAVATION OF PREEXISTING RESPIRATORY OR ALLERGIC CONDITIONS MAY OCCUR IN SOME WORKERS.

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===== First Aid Measures =====  
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First Aid:CALL FOR MEDICAL AID. EMPLOY FIRST AID TECHNIQUES RECOMMENDED BY THE AMERICAN RED CROSS.

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===== Fire Fighting Measures =====  
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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:COMBUSTION OR HEAT OF FIRE MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS AND VAPORS.

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===== Accidental Release Measures =====  
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Spill Release Procedures:THE MANUFACTURER STATES THAT THESE PROCEDURES ARE NOT APPLICABLE.

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===== Handling and Storage =====  
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Handling and Storage Precautions:THESE PRODUCTS AS SHIPPED ARE NONHAZARDOUS, NONFLAMMABLE, NONEXPLOSIVE, AND NONREACTIVE. WELDING ARC AND SPARKS CAN IGNITE COMBUSTIBLES.

Other Precautions:PROVIDE PROTE

CTIVE SCREENS TO SHIELD OTHERS. WHEN

ELECTRODES AND FLUXES ARE CONSUMED, THE FUME AND GAS DECOMPOSITION PRODUCTS GENERATED ARE DIFFERENT IN FORM FROM THE INGREDIENTS LISTED. NEW COMPOUNDS NOT IN THE ELECTRODES MAY FORM.

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

Respiratory Protection:USE RESPIRABLE FUME RESPIRATOR OR AIR SUPPLIED RESPIRATOR WHEN WELDING IN CONFINED SPACE OR WHERE LOCAL EXHAUST OR VENTILATION DOES NOT KEEP EXPOSURE BELOW TLV.

Ventilation:USE ENOUGH VENTILATION, LOCAL EXHAUST AT THE ARC, OR BOTH TO KEEP THE FUMES AND GASES BELOW THE TLV IN THE WORKING AREA.

Protective Gloves:WELDERS LEATHER GLOVES

Eye Protection:USE FACE SHIELD WITH FILTER LENS.

Other Protective Equipment:WEAR HEAD, HANDS AND BODY PROTECTION WHICH TO PREVENT INJURY FROM RADIATION, SPARKS AND ELECTRICAL SHOCK.

Work Hygienic Practices:WASH THOROUGHLY BEFORE EATING OR SMOKING. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.

Supplemental Safety and Health

WELDING AND HOT CUTTING FUMES & GASES CANNOT BE CLASSIFIED SIMPLY. THEIR COMPOSITION AND QUANTITY ARE DEPENDENT ON THE METAL BEING WELDED, THE PROCEDURES, PROCESSES AND THE TYPE OF WIRE OR ELECTRODES USED. OTHER INFLUENCING FACTORS ARE THE PRESENCE OF CONTAMINANTS. CHLORINATED SOLVENTS MAY DECOMPOSE TO TOXIC GASES.

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

HCC:N1

Appearance and Odor:NOT STATED BY MANUFACTURER.

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

Stability Indicator/Materials to Avoid:YES  
STRONG OXIDIZING AGENTS

Stability Condition to Avoid:HIGH HEAT, OPEN FLAMES AND OTHER SOURCES OF IGNITION

Hazardous Decomposition Products:WELDING AND CUTTING OPERATION MAY INCLUDE OXIDES OF THE METALS, CHROMATES, FLUORIDES, COMPLEX METALLICS, AND OZONE.

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

Waste Disposal Methods:CONSULT YOUR LOCAL ENVIRONMENTAL OFFICER. PREVENT WASTE FROM

CONTAMINATING SURROUNDING ENVIRONMENT. DISCARD  
ANY PRODUCT, RESIDUE, DISPOSABLE CONTAINER, OR LINER IN AN  
ENVIRONMENTALLY ACCEPTABLE MANNER IN FULL COMPLIANCE WITH  
REGULATIONS.

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