

INWELD MFG CORP -- 316L-16, STAINLESS STEEL WELDING ELECTRODES -- 3439-01-095-3699

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

Product ID:316L-16, STAINLESS STEEL WELDING ELECTRODES

MSDS Date:12/01/1999

FSC:3439

NIIN:01-095-3699

Status Code:A

MSDS Number: CLNVH

=== Responsible Party ===

Company Name:INWELD MFG CORP

Address:3962 PROTLAND ST

Box:40

City:COPLAY

State:PA

ZIP:18037-0040

Country:US

Info Phone Nu

m:610-261-1900

Emergency Phone Num:800-346-5368

CAGE:66376

=== Contractor Identification ===

Company Name:BLACK AND CO

Address:5351 W MINNESOTA ST

Box:UNKNOW

City:INDIANAPOLIS

State:IN

ZIP:46241

Country:US

Phone:317-243-8676

Contract Num:SP0490-00-D-4063

CAGE:00WU8

Company Name:INWELD MFG CORP

Address:3962 PORTLAND ST

Box:40

City:COPLAY

State:PA

ZIP:18037-0040

Country:US

Phone:610-261-1900

CAGE:66376

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

Ingred Name:IRON

CAS:7439

-89-6  
RTECS #:NO4565500  
Minumum % Wt:30.  
Maxumum % Wt:50.  
OSHA PEL:5 MG/M3  
ACGIH TLV:10 MG/M3 (AS FE2O3)

Ingred Name:CHROMIUM  
CAS:7440-47-3  
RTECS #:GB4200000  
Minumum % Wt:15.  
Maxumum % Wt:25.  
OSHA PEL:0.05 MG/M3  
ACGIH TLV:0.05 MG/M3 (CHROMIUM  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:NICKEL  
CAS:7440-02-0  
RTECS #:QR5950000  
Minumum % Wt:6.  
Maxumum % Wt:20.  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3  
EPA Rpt Qty:100 LBS  
DOT Rpt Qty:100 LBS

Ingred Name:MANGANESE  
CAS:7439-96-5  
RTECS #:OO9275000  
Minumum  
% Wt:1.  
Maxumum % Wt:5.  
OSHA PEL:5 MG/M3  
ACGIH TLV:1 MG/M3

Ingred Name:SILICON  
CAS:7440-21-3  
RTECS #:VW0400000  
Minumum % Wt:.1  
Maxumum % Wt:1.  
OSHA PEL:5 MG/M3 (AS SIO2)  
ACGIH TLV:3 MG/M3 (AS SIO3)

Ingred Name:MOLYBDENUM  
CAS:7439-98-7  
RTECS #:QA4680000  
Minumum % Wt:0.  
Maxumum % Wt:4.  
OSHA PEL:15 MG/M3  
ACGIH TLV:10 MG/M3

Ingred Name:COLUMBIUM  
CAS:7440-03-1  
RTECS #:QT9900000  
Minumum % Wt:0.  
Maxumum % Wt:3.  
OSHA PEL:5 MG/M3  
ACGIH TLV:5 MG/M3

XR2275000  
Minumum % Wt:1.  
Maxumum % Wt:15.  
OSHA PEL:15 MG/M3  
ACGIH TLV:10 MG/M3

Ingred Name:DIPOTASSIUM TITANATE  
CAS:12030-97-6  
Minumum % Wt:0.  
Maxumum % Wt:3.  
OSHA PEL:NOT REGISTERED  
ACGIH TLV:10 MG/M3

Ingred Name:CALCIUM CARBONATE  
CAS:1317-65-3  
RTECS #:EV9580000  
Minumum % Wt:5.  
Maxumum % Wt:15.  
OSHA PEL:5 MG/M3 (AS CAO)  
ACGIH TLV:10 MG/M3

Ingred Name:CALCIUM FLUORIDE  
CAS:14542-23-5  
Minumum % Wt:2.  
Maxumum % Wt:10.  
OSHA PEL:2.5 MG/M3 (AS F)  
ACGIH TLV:2.5 MG/M3 (AS F)

Ingred Name:CRYOLITE  
CA  
S:15096-52-3  
RTECS #:WA9625000  
Minumum % Wt:0.  
Maxumum % Wt:5.  
OSHA PEL:2.5 MG/M3 (AS F)  
ACGIH TLV:2.5 MG/M3 (AS F)

Ingred Name:FELDSPAR  
CAS:68476-25-5  
Minumum % Wt:0.  
Maxumum % Wt:3.  
OSHA PEL:NOT REGISTERED  
ACGIH TLV:2 MG/M3

Ingred Name:CHROMIUM OXIDE  
CAS:1308-38-9  
RTECS #:GB6475000  
Minumum % Wt:0.  
Maxumum % Wt:.5  
OSHA PEL:0.05 MG/M3  
ACGIH TLV:0.05 MG/M3

Ingred Name:POTASSIUM SILICATE  
CAS:1312-76-1  
Minumum % Wt:0.  
Maxumum % Wt:2.  
OSHA PEL:NOT REGISTERED  
ACGIH TLV:5 MG/M3

SILICATE  
CAS:1344-09-8  
Minumum % Wt:1.  
Maxumum % Wt:5.  
OSHA PEL:NOT REGISTERED  
ACGIH TLV:5 MG/M3

Ingred Name:POTASSIUM HYDROXIDE  
CAS:1310-58-3  
RTECS #:TT2100000  
Minumum % Wt:0.  
Maxumum % Wt:.5  
OSHA PEL:NOT REGISTERED  
ACGIH TLV:2 MG/M3  
ACGIH STEL:C2 MG/M3  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

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

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

Explanation of Carcinogenicity:CHROMIUM, NICKEL AND CHROMIUM OXIDE: CARCINOGENICITY-YES.

Effects of Overexposure:FUMES AND GASES CAN BE DANGEROUS TO YOUR HEALTH.

Medical Cond

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

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

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

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

Unusual Fire/Explosion Hazard:THESE PRODUCTS AS SHIPPED ARE NONHAZARDOUS, NONFLAMMABLE, NONEXPLOSIVE, AND NONREACTIVE. WELDING ARC

AND SPARKS CAN IGNITE COMBUSTIBLES AND FLAMMABLES. REFER TO AMERICAN NATIONAL STANDARD -49.1 FOR FIRE PREVENTION DURING THE USE OF WELDING PROCEDURES.

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

Handling and Storage Precautions:READ AND UNDERSTAND THE MANUFACTURER'S INSTRUCTIONS AND THE PRECAUTIONARY LABEL ON THIS PRODUCT. SEE AMERICAN NATIONAL STANDARD Z-49.1, SAFETY IN WELDING AND CUTTING, PUBLISHED BY THE AMERICAN WELDING SOCIETY, P.O. BOX 35414 0, MIAMI, FL 33135 AND OSHA PUBLICATION 2206 (29 C.R.F. 1910). U.S.

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

Respiratory Protection:USE RESPIRABLE FUME RESPIRATOR OR AIR SUPPLEIS 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'S IN THE WORKER'S BREATHING ZONE AND THE GENERAL AREA.

Protective Gloves:WELDER'S GLOVES.

Eye Protection:WEAR HELMET OR USE FACE SHIELD WITH FILTER LENS.

Other Protective Equipment:WEAR HEAD, HAND, & BODY PROTECTION THAT HELP PREVENT INJURY FROM RADIATION, SPARKS & ELECTRICAL SHOCK. AT A MINIMUM, WELDER'S GLOVES & PROTECTIVE FACE SHIELD & ARM PROTECTOR & DARK SUBSTANTIAL CLOTHING

Work Hygienic Practices:TRAIN THE WELDER NOT TO TOUCH LIVE ELECTRICAL PARTS AND TO INSULATE HIMSELF FROM WORK AND GROUND.

Supplemental Safety and Health

VENTILATION-TRAIN THE WELDER TO KEEP HIS HEAD OUT OF THE FUMES. EYE PROTECTION-AS A RULE OF THUMB, START WITH A SHADE THAT IS TOO DARK TO SEE THE WELD ZONE. THEN GO TO THE NEXT LIGHTER SHADE THAT GIVES SUFFICIENT VIEW OF THE WELD ZONE. PROVIDE PROTECTIVE SCREENS & FLASH GOGGLES, IF NECESSARY, TO SHIELD OTHERS.

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

HCC:N1

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

Hazardous Deco

Composition Products: DECOMPOSITION PRODUCTS INCLUDE THOSE  
ORIGINATING FROM VOLATILIZATION, REACTION, OR OXIDATION OF THIS  
MATERIAL SHOWN IN INGREDIENT SECTION PLUS THOSE FROM BASE METAL,  
COATING, ETC..AS NOTED IN TOXICOLOGY

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

Toxicological Information: THRESHOLD LIMIT VALUE: REASONABLY EXPECTED  
FUME OR GAS CONSTITUENTS OF THESE PRODUCTS COULD INCLUDE PRIMARY  
OXIDES OF IRON; SECONDARILY COMPLEX OXIDES OF MANGANESE  
, SILICON,  
CHROMIUM, & MOLYBDENUM ALONG WITH FLUORIDES. OSHA PERMISSIBLE  
EXPOSURE LIMITS & ACGIH THRESHOLD LIMIT VALUES FOR NICKEL IS 1.0  
MG/M3 & FOR HEXAVALENT CHROMIUM IS 0.05 MG/M3. WELDING FUMES ALSO  
CONTAIN FLUORIDES & OSHA (PEL) & ACGIH (TLV) LIMITS ARE 2.5 MG/M3.  
IT IS TO BE NOTED THAT ALL THE ABOVE WILL RESULT IN A SIGNIFICANT  
REDUCTION FROM 5 MG/M3 GENERAL FUME LEVEL.

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

Waste Disposal Methods: PREVENT WASTE FROM CONTAMINATING SURROUNDING  
ENVIRONMENT. DISCARD ANY PRODUCT, RESIDUE, DISPOSABLE CONTAINER, OR  
LINER IN AN ENVIRONMENTALLY ACCEPTABLE MANNER, IN FULL COMPLIANCE  
WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

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

SARA Title III Information: \*CHROMIUM, NICKEL, CHROMIUM OXIDE: THE  
INGREDIENTS MARKED WITH AN ASTERICK ARE COVERED UNDER THE REPORTING  
REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING  
AND COMMUNITY  
RIGHT TO KNOW ACT OF 1986 AND 40 CFR 372.

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

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