

INWELD MFG CORP -- 6013, COVERED ELECTRODES FOR MMAW (MILD STEEL) --  
3439-01-046-0348

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

Product ID:6013, COVERED ELECTRODES FOR MMAW (MILD STEEL)

MSDS Date:09/01/1997

FSC:3439

NIIN:01-046-0348

Status Code:A

MSDS Number: CLMSX

=== Responsible Party ===

Company Name:INWELD MFG CORP

Address:3962 PROTLAND ST

Box:40

City:COPLAY

State:PA

ZIP:18037-0040

Country:US

Info Ph

one Num: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

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

Ingred Name:IRON

CA

S:7439-89-6  
RTECS #:NO4565500  
Minumum % Wt:65.  
Maxumum % Wt:85.  
OSHA PEL:5 MG/M3  
ACGIH TLV:10 MG/M3 (AS FE203)

Ingred Name:CELLULOSE  
CAS:9004-34-6  
RTECS #:FJ5691460  
Minumum % Wt:.5  
Maxumum % Wt:10.  
OSHA PEL:NOT REGISTERED  
ACGIH TLV:10 MG/M3

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:5.  
OSHA PEL:5 MG/M3 (AS SI02)  
ACGIH TLV:3 MG/M3 (AS SI  
02)

Ingred Name:TITANIUM DIOXIDE  
CAS:13463-67-7  
RTECS #:XR2275000  
Minumum % Wt:1.  
Maxumum % Wt:15.  
OSHA PEL:15 MG/M3  
ACGIH TLV:10 MG/M3

Ingred Name:POTASSIUM 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:1.  
Maxumum % Wt:5.  
OSHA PEL:5 MG/M3 (AS CAO)  
ACGIH TLV:10 MG/M3

Ingred Name:SODIUM TITANATE  
CAS:12034-34-3  
Minumum % Wt:0.  
Maxumum % Wt:2.

CGIH TLV:10 MG/M3

Ingred Name:IRON OXIDE

CAS:1309-38-2

RTECS #:OM4800000

Minumum % Wt:0.

Maxumum % Wt:5.

OSHA PEL:5 MG/M3

ACGIH TLV:10 MG/M3 (AS FE2O3)

Ingred Name:ALUMINUM OXIDE

CAS:1344-28-1

RTECS #:BD1200000

Minumum % Wt:0.

Maxumum % Wt:2.

OSHA PEL:5 MG/M3

ACGIH TLV:10 MG/M3

Ingred Name:SODIUM SILICATE

CAS:1344-09-8

Minumum % Wt:0.

Maxumum % Wt:5.

OSHA PEL:NOT REGISTERED

ACGIH TLV:5 MG/M3

Ingred Name:POTASSIUM SILICATE

CAS:1312-76-1

Minumum % Wt:0.

Maxumum % Wt:5.

OSHA PEL:NOT REGISTERED

ACGIH TLV:5 MG/M3

Ingred Name:GRAPHITE

CAS:7782-42-5

RTECS #:MD9659600

Minumum % Wt:0.

Maxumum % Wt:5.

OSHA PEL:NOT REGISTERED

ACGIH TLV:5 MG/M3

Ingred Name:SILICON DIOXIDE

CAS:7631-86-9

Minumum % Wt:1.

Maxumum % Wt:5.

OSHA PEL:5 MG/M3

ACGIH TLV:3 MG/M3

Ingred Name:FELDSPAR

CAS:68476-25-5

Minumum % Wt:0.

Maxumum % Wt:3.

OSHA PEL:NOT REGISTERED

ACGIH TLV:2 MG/M3

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

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Ha

zards 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) OVEREXPOSURE 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.

Effects of Overexposure:DIZZINESS, NAUSEA, AND DRYNESS OR IRRITATION OF THE NOSE, THROAT, OR EYES.

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

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

First Aid:EMPLOY FIRST AID TECHNIQUES RECOMMENDED BY THE AMERICAN RED CROSS. FOR SKIN CONTACT, REMOVE PRATICLES BY THOROUGHLY WASHING WITH SOAP AND WATER. FOR EYE CONTACT, FLUSH WITH WATER FOR AT LEAST 15 MINUT ES, GET MEDICAL ATTENTION. FOR INHA LATION, REMOVE FROM EXPOSURE, GET MEDICAL ATTENTION IF EXPERIENCING BREATHING DIFFICULTY.

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

Fire Fighting Procedures:REFER TO AMERICAN NATIONAL STANDARD Z-49.1 FOR FIRE PREVENTION DURING THE USE OF WELDING PROCEDURES.

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

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

Spill Release Procedures:NOT APPLICABLE.

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

Handling and Storage Precautions:READ AND UNDERSTAND THE MANUFACTURES`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. BPX 35410, MIAMI, FL 33135 AND OSHA PUBLICATION 2206 (29 C.F.R. 1

910), U.S.

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

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

Protective Gloves:WELDERS GLOVES AND A PROTECTIVE FA  
CE SHIELD.

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

Other Protective Equipment:PROVIDE PROTECTIVE SCREENS AND FLASH  
GOGGLES, IF NECESSARY, TO SHIELD OTHERS. WEAR HEAD, HAND, AND BODY  
PROTECTION WHICH HELP TO PREVENT INJURY FROM RADIATION, SPARKS AND  
ELECTRICAL SHOCK.

Work Hygienic Practices:AT A MINIMUM (WELDER`S GLOVES, PROTECTIVE FACE  
SHIELD, ARM/SHOULDER PROTECTORS, HATS, AS WELL AS DARK SUBSTANTIAL  
CLOTHING). TRAIN THE WELDER NOT TO TOUCH LIVE ELECT  
RICAL PARTS & TO  
INSULATE HIMSELF.

Supplemental Safety and Health

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

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

HCC:N1

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

GASEOUS REACTION MAY INCLUDE CARBON MONOXIDE AND CARBON DIOXIDE. OZONE  
AND NITROGEN OXIDES MAY BE FORMED BY THE RADIATION FROM THE ARC.

Hazardous Decomposition Products:REASONABLY EXPECTED FUME OR GAS  
CONSTITUENTS OF THIS PRODUCT COULD INCLUDE PRIMARILY OXIDES OF  
IRON; SECONDARILY COMPLEX OXIDES OF MANGANESE, SILICON, AND  
ALUMINUM.

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

Toxicological Information:THRES

HOLD LIMIT VALUE: THE ACGIH RECOMMENDED

GENERAL LIMIT FOR WELDING FUME NOC (NOT OTHERWISE CLASSIFIED) IS 5 MG/M3. THE ACGIH 1984-85 PREFACE STATES: "THE TLV-TWA SHOULD BE USED AS GUIDES IN THE CONTROL OF HEALTH HAZARDS AND SHOULD NOT BE USED AS FIRM LINES BETWEEN SAFE AND DANGEROUS CONCENTRATIONS".

===== 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: \*MANGANESE AND ALUMINUM OXIDE: THE INGREDIENTS MARKED WITH AN ASTERISK ARE COVERED UNDER THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT OF 1986 AND OF 40 CFR 372.

Federal Regulatory Information:

IMPORTANT: THE MATERIALS LISTED ARE WHAT IS REASONABLY EXPECTED TO EXIST IN THE FUMES WHEN PRODUCT IS USED IN WELDING. THE TERM "HAZARDOUS" SHOULD BE INTERPRETED AS A TERM REQUIRED AND DEFINED IN OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) AND IT DOES NOT NECESSARILY IMPLY THE EXISTENCE OF ANY HAZARD.

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

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