INWELD MFG CORP -- E6012, COVERED ELECTRODES FOR MMAW (MILD STEEL) -- 3439-00-165-4175

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

Product ID:E6012, COVERED ELECTRODES FOR MMAW (MILD STEEL)
MSDS Date:09/01/1997
FSC:3439
NIIN:00-165-4175
Status Code:A
MSDS Number: CLMVM
=== Responsible Party ===
Company Name:INWELD MFG CORP
Address:3962 PROTLAND ST
Box:40
City:COPLAY
State:PA
ZIP:18037-0040
Country:US
Info Phone Num:610-261-1900
Emergency Phone Num:800-346-5368
CAGE:663
76
=== 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: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 SI02)

Ingred Name:TITANIUM DIOXIDE
CAS:13463-67-7
RTECS #:XR227
5000
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.
OSHA PEL:NOT REGISTERED
ACGIH TLV:10 MG/M3

#: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 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) 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 Aggrava
ted by Exposure:AGGRAVATION OF PREEXISTING RESPIRATORY OR ALLERGIC CONDITIONS MAY OCCUR IN SOME WORKERS.

========== 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 INHALATION, REMOVE FROM EXPOSURE, GET MEDICAL ATTENTION IF EXP
ERIENCING BREATHING DIFFICULTY.

========== 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.

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

Spi
ll Release Procedures:NOT APPLICABLE.

========== 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. 1910), U.S.

========== Exposure Controls/Personal Protecti

on ==========

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 FACE SHIELD.
Eye Protection:WEAR HELMET OR USE FACE SHIELD WITH
FILTER LENS.
Other Protective Equipment:PROVIDE PROTECTIVE SCREENS AND FLASH GOGGLES, IF NECESSAY, 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 ELECTRICAL 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.

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

HCC:N1

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

GASEOUS REAC
TION 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.

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

Toxicological Information:THRESHOLD LIMIT VALUE: THE ACGIH RECOMMENDED GENERAL LIMIT FOR

WELDING FUME NOC (NOT OTHERWISE CLASSIFID) IS 5
MG/M3. THE ACGIH 1984-85 PREFACE STATES: :THE TLV-TWA SHOULD BE USED AS GUIDES IN THE CON TROL 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 ACCE
PTABLE 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 EQUIREMENTS 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 E
XPECTED TO EXIST IN THE FUMES WHEN PRODUCT IS USED
IN WELDING. THE TERM " HAZARDOUS" SHOULD BE INTERPRETED AS A TERM REQUIRED AND DEFINED IN OSH A HAZARD COMMUNICATION STANDARD (29 CFR 19100.1200) AND IT DOES NOT NECESSARILY IMPLY THE EXISTENCE OF ANY HAZARD.

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