

INWELD MFG CORP -- ER 4047(718), INWELD ALUMINUM WIRES -- 3439-00-262-4175
===== Product Identification =====

Product ID:ER 4047(718), INWELD ALUMINUM WIRES

MSDS Date:09/01/1999

FSC:3439

NIIN:00-262-4175

Status Code:A

MSDS Number: CLMPH

=== 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:610-261-1900

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:ALUMINUM

CAS:7429-90-5

RTECS

#:BD0330000
Minumum % Wt:85.
Maxumum % Wt:99.5
OSHA PEL:15 MG/M3
ACGIH TLV:10 MG/M3

Ingred Name:BERYLLIUM
CAS:7740-41-7
RTECS #:DS1750000
Fraction by Wt: 0.008%
OSHA PEL:SEE TABLE Z-2
ACGIH TLV:0.002 MG/M3 FUME
ACGIH STEL:0.002 MG/M3
EPA Rpt Qty:10 LBS
DOT Rpt Qty:10 LBS

Ingred Name:CHROMIUM
CAS:7440-47-3
RTECS #:GB4200000
= Wt:.35
OSHA PEL:1 MG/M3
ACGIH TLV:0.5 MG/M3
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:COPPER
CAS:7440-50-8
RTECS #:GL5325000
= Wt:6.8
OSHA PEL:1 MG/M3
ACGIH TLV:0.2
MG/M3
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:IRON
CAS:7439-89-6
RTECS #:NO4565500
= Wt:.8
ACGIH TLV:5 MG/M3 OXIDE FUME

Ingred Name:MAGNESIUM
CAS:7439-95-4
RTECS #:OM2100000
= Wt:5.5
ACGIH TLV:10 MG/M3 OXIDE FUM

Ingred Name:MANGANESE
CAS:7439-96-5
RTECS #:OO9275000
= Wt:1.
OSHA PEL:C5 MG/M3
ACGIH TLV:1MG/M3

Ingred Name:SILICON
CAS:7440-21-3
RTECS #:VW0400000
= Wt:13.
OSHA PEL:15 MG/M3

5 MG/M3
ACGIH TLV:5 MG/M3 OXIDE FUME

Ingred Name:COBALT
CAS:7440-48-4
RTECS #:GF8750000
OSHA PEL:0.1 MG/M3
ACGIH TLV:0.05 MG/M3

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Hazards Identification
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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 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. FOR SKIN CONTACT, REMOVE PARTICLES BY THOROUGHLY WASHING WITH SOAP AND WATER. FOR EYE CONTACT, FLUSH WITH WATER FOR AT LEAST 15 MINUTES, GET MEDICAL ATTENTION. FOR INHALATION, REMOVE FROM EXPOSURE, GET MEDICAL ATTENTION IF EXPERIENCING BREATHING DIFFICULTY.

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Fire Fighting Measures
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Fire Fighting Procedures:REFER TO AMERICAN NATIONAL STANDARD Z-49.1 FOR FIRE PREVENTING 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
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Spill Release Procedures:NOT APPLICABLE.

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Handling and Storage
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Handling and Storage Precautions:READ AND UNDERSTAND THE MANUFACTURES'S INSTRUCTIONS AND THE PRE

CAUTIONARY 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.

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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 TL

V.

Ventilation:USE ENOUGH VENTILATION, LOCAL EXHAUST AT THE ARC, OR BOTH,
TO KEEP THE FUMES AND GASES BELOW THE TLV'S IN THE WORKERS
BREATHING ZONE AND THE GENERAL AREA.

Protective Gloves:WELDERS GLOVES AND A PROTECTIVE FACE SHIELD.

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

Other Protective Equipment:WEAR HEAD, HAND AND BODY PROTECTION THAT
HELP TO PREVENT INJURY FROM RADIATION, SPARKS AND ELECTRICAL SHOCK.
SEE ANSI Z-49.1.

Work Hygienic Practices:AT A MINIMUM (W
ELDER'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 SC
REENS AND
FLASH GOGGLES, IF NECESSARY, TO SHIELD OTHERS.

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

HCC:N1

Melt/Freeze Pt:M.P/F.P Text:970-1215

Spec Gravity:2.5-2.9

Solubility in Water:NIL

Appearance and Odor:SOLID, METALLIC COLOR, NO ODOR.

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

Hazardous Decomposition Products:REASONABLY EXPETED FUMES/GASES WOULD
INCLUDE METAL FUMES, OXIDES OF ALUMINUM & MAGNESIUM, CARBON
MONOXIDE, CARBON DI

OXIDE, OZONE, NITROGEN OXIDES, INFRA-RED RADIATION, & ULTRA-VIOLET RADIATION.

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

Toxicological Information:THRESHOLD 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".

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===== 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 =====

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 19100.1200) AND IT DOES NOT NECESSARILY IMPLY THE EXISTENCE OF ANY HAZARD.

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

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