



26 ALUMINUM WELDING FILLER ALLOY

SECTION 4

FIRE AND EXPLOSION DATA

CONT'D

EXTINGUISHING MEDIA..... SEE BELOW  
SPECIAL PROCEDURES..... SEE BELOW  
UNUSUAL HAZARDS..... WELDING ARC AND SPARKS CAN IGNITE COMBUS-  
TIBLES AND FLAMMABLES. REFER TO AMERICAN  
NATIONAL STANDARD Z49.1 FOR FIRE PREVEN-  
TION DURING THE USE OF WELDING AND ALLIED  
PROCEDURES

SECTION 5

REACTIVITY DATA

STABILITY..... STABLE  
CONDITIONS TO AVOID..... NONE UNLESS OTHERWISE SPECIFIED  
HAZARDOUS POLYMERIZATION..... NA  
INCOMPATIBILITY..... NONE  
HAZARDOUS DECOMPOSITION PRODUCTS THE COMPOSITION AND QUALITY OF WELDING  
FUMES AND GASES ARE DEPENDENT UPON THE  
METAL BEING WELDED, THE PROCESS, PROCEDURE  
AND ELECTRODES USED. OTHER CONDITIONS  
WHICH ALSO INFLUENCE THE COMPOSITION AND  
QUANTITY OF FUMES AND GASES TO WHICH  
WORKERS MAY BE EXPOSED INCLUDE: COATINGS  
ON METAL BEING WELDED (SUCH AS PAINT,  
PLATING, OR GALVANIZING), THE NUMBER OF  
WELDERS AND VOLUME OF THE WORK AREA, THE  
QUALITY AND AMOUNT OF VENTILATION, THE  
POSITION OF WELDER'S HEAD WITH RESPECT TO  
FUME PLUME, AND THE PRESENCE OF CONTAMIN-  
ANTS IN ATMOSPHERE (CHLORINATED HYDRO-  
CARBON VAPORS FROM CLEANING AND DEGREASING  
ACTIVITIES). WHEN ELECTRODE IS CONSUMED,  
THE FUME AND GAS DECOMPOSITION PRODUCTS  
GENERATED ARE DIFFERENT IN PERCENT AND  
FORM FROM INGREDIENTS IN SECTION 2. FUME  
AND GAS DECOMPOSITION PRODUCTS, AND NOT  
INGREDIENTS IN ELECTRODE, ARE IMPORTANT.  
CONCENTRATION OF GIVEN FUME OR GAS COMPON-  
ENT MAY DECREASE OR INCREASE BY MANY TIMES  
ORIGINAL CONCENTRATION. NEW COMPOUNDS IN  
ELECTRODE MAY FORM. DECOMPOSITION PRO-  
DUCTS OF NORMAL OPERATION INCLUDE THOSE  
ORIGINATING FROM VOLATILIZATION, REACTION,  
OR OXIDATION OF MATERIALS IN SECTION 2,  
PLUS THOSE FROM BASE METAL AND COATING,  
ETC., AS NOTED ABOVE. REASONABLY EXPECTED  
FUME CONSTITUENTS OF PRODUCT COULD INCLUDE  
PRIMARILY OXIDES OF IRON; SECONDARILY  
OXIDES OF CHROMIUM, NICKEL, MANGANESE,  
SILICON, AND MOLYBDENUM. PRESENT OSHA  
EXP. LIMITS FOR HEXAVALENT-CHROMIUM IS

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SECTION 5

REACTIVITY DATA

CONT'D

.05 MG/M3 AND NICKEL 1MG/M3 WHICH WILL RESULT IN SIGNIFICANT REDUCTION FROM 5MG/M3 GENERAL FUME LEVEL. GASEOUS REACTION IN PRODUCTS MAY INCLUDE CARBON MONOXIDE AND CARBON DIOXIDE. OZONE AND NITROGEN OXIDES MAY BE FORMED BY THE RADIATION FROM ARC, IN ADDITIOIN TO SHIELDING GASES LIKE ARGON AND HELIUM WHEN EMPLOYED. ONE RECOMMENDED WAY TO DETERMINE COMPOSITION AND QUANTITY OF FUMES AND GASES OT TO TAKE AIR SAMPLE FROM INSIDE WELDER'S HELMET IF WORN OR IN BREATHING ZONE. SEE AWS F1.1 AND AWS F1.2 -1985,AVAILABLE FROM THE AMERICAN WELDING SOCIETY. SEE AWS PUBLICATION: "FUMES AND GASES IN THE WELDING ENVIRONMENT".

SECTION 6

HEALTH HAZARD DATA

ROUTES OF ENTRY..... INHALATION, SKIN AND INGESTION  
HEALTH HAZARDS..... ELECTRIC ARC-WELDING MAY CREATE: FUMES AND GASES CAN BE DANGEROUS. ARC RAYS CAN INJURE EYES AND BURN SKIN. ELECTRIC SHOCK CAN KILL.

CARCINOGENICITY..... THE ACGIH RECOMMENDED GENERAL LIMIT FOR WELDING FUME NOC IS 5 MG/M3. ACGIH 1984-85 PREFACE STATES: THEE TIV-TWA SHOU BE USED AS GUIDES IN ONTROL OF HEALTH HAZARDS & SHOULD NOT BE USED AS FIRM LINES BETWEEN CARCINOGENITY CONT... SAFE AND DANGEROUS CONCENTRATIONS. SEE SECTION V FOR SPECIFIC FUME CONSTITUENTS WHICH MAY MODIFY THIS TLV.

SIGNS & SYMPTOMS OF EXPOSURE....

MEDICAL CONDITIONS FROM EXPOSURE SHORT TERM TO WELDING FUMES-DIZZINESS, NAUSEA, DRYNESS & IRRITATION OF NOSE, EYES THROAT, CHEST TIGHTNESS, FEVER, ALLERGIC REACTION. LONG TERM-SIDEROSIS, BELIEVED TO AFFECT PULMONARY FUNCTION.

EMERGENCY & FIRST AID..... CALL FOR MEDICAL AID. EMPLOY FIRST AID TECHNIQUES RECOMMENDED BY THE AMERICAN RED CROSS.

ADDITIONAL INFORMATION..... NA

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SECTION 6

HEALTH HAZARD DATA

CONT'D

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SECTION 7

PRECAUTIONS FOR SAFE HANDLING AND USE

SPILL AND LEAK PROCEDURES..... NA

WASTE AND DISPOSAL METHOD..... PREVENT WASTE FROM CONTAMINATING SURROUND-  
ING ENVIRONMENT. DISCARD ANY PRODUCT  
RESIDUE, DISPOSABLE CONTAINER OR LINER IN  
ENVIROMNMENTALLY ACCEPTABLE MANNER, IN FULL  
COMPLIANCE WITH FEDERAL, STATE, AND LOCAL  
REGULATIONS.

HANDLING AND STORING PRECAUTIONS USE EXHAUST SYSTEM. MAKE SURE INHALED AIR  
DOES NOT CONTAIN FUME CONSTITUENTS ABOVE  
PERMISSIBLE EXPOSURE LEVELS. OTHER PRE-  
CAUTIONS FOR ADDITIONAL SAFETY INFORMATION  
ON WELDING AND CUTTING, SEE AMERICAN  
STANDARD Z49.1-1983, SAFETY IN WELDING AND  
CUTTING, AND THE WELDING HANDBOOK, VOL. 1,  
CHAPTER 9, SAFE PRACTICES IN WELDING AND  
CUTTING, BOTH AVAILABLE FROM AM WELDING  
SOCIETY INC., 550 N.W. LEJNUE RD.,  
OTHER PRECAUTIONS..... PO BOX 351040, MIAMI, FL 33135. PHONE  
305-443-9353.  
READ AND UNDERSTAND MANUFACTURER'S  
INSTRUCTIONS AND THE PRECAUTIONARY LABEL  
ON THIS PRODUCT. SEE AM. NATIONAL STAN-  
DARD Z-49.1, SAFETY IN WELDING AND CUTTING  
BY THE AM. WELDING SOCIETY; AND OSHA  
PUBLICATION 2206 (29CRF 1910), U.S.  
GOVERNMENT PRINTING OFFICE FOR MORE DETAIL  
ON THE CONTROL MEASURES.

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SECTION 8

CONTROL MEASURES

RESPIRATORY MEASURES..... USE RESPIRABLE FUME RESPIRATORY OR AIR  
SUPPLIED RESPIRATOR WHEN IN CONFINED SPACE  
OR LOCAL EXHAUST DOES NOT KEEP EXPOSURE  
BELOW RECOMMENDED EXPOSURE LIMIT

VENTILATION..... USE ENOUGH LOCAL VENTILATION, AND LOCAL EX-  
HAUST AT ARC TO KEEP FUMES AND GASES FROM  
WORKER'S BREATHING ZONE AND GENERAL AREA.  
TRAIN WORKER TO KEEP HEAD OUT OF FUMES

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SECTION 8

CONTROL MEASURES

CONT'D

PROTECTIVE GLOVES..... SEE OTHER PROTECTIVE EQUIPMENT  
EYE PROTECTION..... WEAR HELMET, FACE SHIELD WITH FILTER LENS,  
PROTECTIVE SCREENS, FLASH GOGGLES TO  
SHIELD OTHERS. START WITH SHADE TOO DARK  
THEN GO TO LIGHTER SHADE WHICH GIVES SUFF-  
ICIENT VIEW OF WELD ZONE.  
OTHER PROTECTIVE EQUIPMENT..... HAND, HEAD, BODY PROTECTION TO PREVENT IN-  
JURY FROM RADIATION, SPARKS AND ELECTRICAL  
SHOCK. DO NOT TOUCH LIVE ELECTRICAL PARTS  
AND INSULATE FROM WORK AND GROUND.  
WORK/HYGIENIC PRACTICES..... FOR MAXIMUM SAFETY: BE CERTIFIED FOR,  
AND WEAR A RESPIRATOR AT ALL TIMES WHEN  
WELDING OR BRAZING.

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SECTION 9

DISCLAIMER

THIS DATA IS BELIEVED TO BE ACCURATE. HARRIS WEL

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SECTION 10

ADDITIONAL INFORMATION

NA = NOT APPLICABLE

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SECTION 11

ADDITIONAL INFORMATION