

ADVANCED METAL COMPONENTS, INC. -- 3P00102-4 FITTING (LIQUID NITROGEN - SEE SUPP DATA) -- 6830-00-782-2643

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

Product ID:3P00102-4 FITTING (LIQUID NITROGEN - SEE SUPP DATA)

MSDS Date:04/04/1984

FSC:6830

NIIN:00-782-2643

MSDS Number: BWZLT

=== Responsible Party ===

Company Name:ADVANCED METAL COMPONENTS, INC.

Address:1374 WILLOW ROAD

City:MENLO PARK

State:CA

ZIP:940

25

Country:US

Info Phone Num:415-617-8915

Emergency Phone Num:415-617-8915

CAGE:0S664

=== Contractor Identification ===

Company Name:ADVANCED METAL COMPONENTS, INC.

Address:1374 WILLOW ROAD

Box:City:MENLO PARK

State:CA

ZIP:94025

Country:US

Phone:415-617-8915

CAGE:0S664

Company Name:AIR PRODUCTS AND CHEMICALS INC

Address:7201 HAMILTON BLVD

Box:City:ALLENTOWN

State:PA

ZIP:18195-1501

Country:US

Phone:800-345-3148/ 800-752-1597

CAGE:00742

Company Name:ROBERTS OXYGEN COMPANY (301-948-8100)

CAGE:7N906

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Composition/Information on Ingredients
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Ingred Name:LIQUID NITROGEN - (PART IS SHIPPED IN LIQUID NITROGEN)
CAS:7727-37-9
RTECS #:QW9700000
Other REC Limits:NONE RECOMMENDED
ACGIH TLV:ASPHYXIAN; 9495

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Hazards Identification
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Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:NITROGEN IS ODORLESS AND NONTOXIC, BUT
MAY PRODUCE
SUFFOCATION BY DILUTING THE CONCENTRATION OF OXYGEN IN
AIR BELOW LEVELS NECESSARY TO SUPPORT LIFE. PERSONS,INCLUDING
RESCUE WORKERS, SHOULD NOT ENTER AREAS WHERE THE OXYGEN
CONCENTRATION IS BELOW 19%, UNLESS PROVIDED WITH A SELF-CONTAINED
BREATHING APPARATUS.
Explanation of Carcinogenicity:MANUFACTURER GAVE NO INFORMATION ABOUT
CARCINOGENICITY. HMIS DOES NOT EXPECT IT TO BE CARCINOGENIC.
Effects of Overexposure:EXPOSURE TO OXYGEN-DEFICIENT ATMOSPHERE MAY
PRODUCE DIZZINES
S, NAUSEA, VOMITING,LOSS OF CONSCIOUSNESS, & DEATH.
EXTENSIVE TISSUE DAMAGE OR BURNS CAN RESULT FROEXPOSURE TO LIQUID
NITROGEN OR COLD NITRO GEN VAPORS. NITROGEN UNDER HIGH PRESSURECAN
PRODUCE NARCOSIS EVEN THOUGH OXYGEN SUFFICIENT FOR LIFE IS PRESENT.
Medical Cond Aggravated by Exposure:MFR GAVE NO INFORMATION ON MSDS.

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First Aid Measures
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First Aid:MOVE PERSON SUFFERING FROM LACK OF OXYGEN TO NORMAL
ATMOSPHERE. ASSIST RESPIRATIO
N & SUPPLEMENTAL OXYGEN IF NEEDED. IF
CRYOGENIC LIQUID OR COLD GAS CONTACTS WORKER'S SKIN OR EYES, FLOOD
FROZEN TISSUES WITH TEPID WATER. DO NOT USE HOT WATER! GET
IMMEDIATE MEDICAL ATTENTION FOR CRYOGENIC BURNS WHICH RESULT IN
BLISTERING OR DEEPER TISSUE FREEZING.

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Accidental Release Measures
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Spill Release Procedures:AVOID CONTACT OF SKIN WITH LIQUID NITROGEN OR
ITS BOIL-OFF GAS. FLUSH SPILL WITH WATER TO DISPERSE. VENT ENCLOSED

AREAS TO PREVENT FORMATION OF OXYGEN-DEFICIENT ATMOSPHERE CAUSED BY THE EVAPORATION OF LIQUID OR THE RELEASE OF GASEOUS NITROGEN.

Neutralizing Agent:MFR GAVE NO INFORMATION ON MSDS.

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

Handling and Storage Precautions:STORE CONTAINERS & CYLINDERS IN WELL VENTILATED AREAS. USE COMPRESSED GAS ASSOCIATION PROCEDURES WHEN HANDLING CYLINDERS.

Other Precautions:LIQUID NITROGEN IS A CRYOGENIC LIQ. MATERIALS OF CONSTRUCTI

ON MUST BE SELECTED FOR COMPATIBILITY WITH EXTREMELY LOW TEMPS. AVOID USE OF CARBON STEEL & OTHER MATERIALS WHICH BECOME BRITTLE AT LOW TEMPE RATURES.

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

Respiratory Protection:USE SELF-CONTAINED BREATHING APPARATUS IN OXYGEN-DEFICIENT ATMOSPHERES. CAUTION! RESPIRATORS WILL NOT FUNCTION. USE MAY RESULT IN ASPHYXIATION.

Ventilation:NATURAL/MECHANICAL WHERE GAS IS PRESENT. SITUATE VENTS TO PREVENT HIGHER THAN NO

RMAL CONCENTRATION OF NITROGEN IN AREA.

Protective Gloves:LEATHER WORK GLOVES

Eye Protection:CHEMICAL GOGGLES OR SAFETY GLASSES

Other Protective Equipment:MFR GAVE NO INFORMATION ON MSDS.

Work Hygienic Practices:MFR:? HMIS:USE GOOD INDUSTRIAL HYGIENE PRACTICE. AVOID UNNECESSARY CONTACT. WASH THOROUGHLY AFTER HANDLING.

Supplemental Safety and Health

U/I IS A FITTING WHICH IS SHIPPED IN A DEWAR FLASK OF LIQUID NITROGEN. IT CANNOT BE WAREHOUSED & IS SHIPPED DIRECTLY FROM THE MFR. MFR

OBTAINS AIR PRODUCTS' LIQUID NITROGEN FROM ROBERTS OXYGEN CO.

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

HCC:G3

NRC/State Lic Num:NONE

Boiling Pt:B.P. Text:-320F/-195C

Melt/Freeze Pt:M.P/F.P Text:-348F,-211C

Vapor Density:0.07273

Solubility in Water:1.52% VOL

Appearance and Odor:BOTH LIQUID AND GASEOUS NITROGEN ARE COLORLESS AND ODORLESS.

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

Stability Indicator/Materials to Avoid:YES

NONE

Stabil

ity Condition to Avoid:NONE

Hazardous Decomposition Products:NONE

Conditions to Avoid Polymerization:WILL NOT OCCUR. NONE

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

Waste Disposal Methods:ALLOW LIQUID NITROGEN TO EVAPORATE IN WELL VENTILATED OUT-DOOR LOCATION REMOTE FROM WORK AREAS. DO NOT DISPOSE OF RESIDUAL NITROGEN IN COMPRESSED GAS CYLINDERS. RETURN CYLINDERS TO MFR W/VALVE TIGHTLY CLOSED & CAPS IN PLACE.

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