

AIR PRODUCTS AND CHEMICALS INC. -- ACETYLENE, ETHYNE, ETHINE -- 6830-00-292-0138

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Product Identification
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Product ID:ACETYLENE, ETHYNE, ETHINE
MSDS Date:06/01/1990
FSC:6830
NIIN:00-292-0138
MSDS Number: BJRDR
=== Responsible Party ===
Company Name:AIR PRODUCTS AND CHEMICALS INC.
Address:7201 HAMILTON BLVD
City:ALLENTOWN
State:PA
ZIP:18195-1501
Country:US
Info Phone Num:215-481-4911
Emer
gency Phone Num:800-523-9374/800-322-9092(IN PA)
CAGE:00742
=== Contractor Identification ===
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

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Composition/Information on Ingredients
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Ingred Name:ACETYLENE
CAS:74-86-2
RTECS #:AO9600000
Other REC Limits:NONE RECOMMENDED
ACGIH TLV:ASPHYXIAN; 9394

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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:ACETYLENE:SIMPLE
ASPHYXIAN,IRRIT,ANESTHETIC.NO EXPERIMENTAL DATA OF CHRONIC HARMFUL
EFFECTS.HEAD,DIZZ,SHORTNESS OF BREATH,LOSS OF CONSC IF PRESENT IN
AMTS SUFFICIENT TO DILUTE OXY CONC.ANOXIA OCCUR W HEN CONC W/IN
FLAMM RANGE & NOT IGNITED.

Explanation of Carcinogenicity:PER MSDS:NOT LISTED AS CARCINOGEN BY
NTP/IARC/O
SHA.

Effects of Overexposure:ASPHYXIANAT, IRRITANT, ANESTHETIC. HEADACHE,
DIZZINESS, SHORTNESS OF BREATH, LOSS OF CONSCIOUSNESS. ANOXIA.
Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:1ST DEG/MINOR DEGREEE THERMAL BURNS FROM FIRES SHOULD BE
IMMERSED IN COOL WATER 30MINS.MAJOR 2ND/3RD DEGREE BURNS SHOULD BE
COVERED IN CLEANEST MATL AVAILABLE.SEEK IMMED AID OF
PHSYICIAN.PERSONS SUF
FE RING FROM LACK OF OXY SHOULD BE MOVED TO
AREAS W/NORMAL ATM.ASSISTED RESP & SUPPLEMENTAL OXY SHOULD BE GIVEN
IF VICTIM NOT BREATHING.

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

Flash Point Method:CC
Flash Point:0F,-18C
Autoignition Temp:Autoignition Temp Text:581F
Lower Limits:2.5 @1ATM
Upper Limits:100 @1ATM
Extinguishing Media:CARBON DIXOIDE, DRY CHEMICAL, HALON. (NOTE HALON IS
AN ODS.) ELECTRICLA CLASSIFICATION:CLASS I, GROUP A.
Fire Fighting Procedu
res:STOP GAS FLOW.FIGHT FIRE CONVENTIONALLY.KEEP
FIRE-EXPO CNTNR/CYL W/WATERSPRAY.KEEP PEOPLE WELL AWAY SINCE CNTNRS
CAN RUPTURE VIOLENTLY.
Unusual Fire/Explosion Hazard:EXTREMELY FLAMM/EXPLO.MAY DECOMPOSE VIO
IN FREE STATE UNDER PRESSURE >15PSIG.BURNS W/INTENSELY HOT
FLAME.POT EXPLO HAZ FRM REIGN IF FIRE EXT W/O GAS OFF.(SUPP)

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

Spill Release Procedures:VENTILATE AREA-PREVENTS FLAMM MIXTURES.REMOVE
IGN SOURC

E/HEAT/SPARKS/ETC.AVOID ENTERING AREA OF FLAMM
ATM.CAREFULLY REMOVE CYL W/SLOW LEAKS TO REMOTE,OUTDOOR
LOCATION.CONTACT AIR PRODUCTS FOR ASSISTAN CE.
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:DO NOT ENTER AREAS W/IN FLAMM RANGE
DUE TO IMMED FIRE/EXPLO HAZ.USE IN WELL VENTI AREAS.GAS UNDER
PRESSURE-HANDLE W/CARE,USE REDUCING REG @,15PSIG.

Other Precautions:USE SUITABLE F

LAMM GAS METER(EXPLOSIMETER)CALIBRATED

FOR H2C2 TO MEASURE CONC OF GAS IN AIR.SEE COMPRESSED GAS ASSOC SAF
BULLETIN SB-4.OPEN/CLS GY SLOWLY.USE SUITABLE HAND TRUCK.KEEP AWAY
FROM HEAT/IG N SOURCE/ETC.FOLLOW ALL SAF CYL PRACTICE

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

Respiratory Protection:OXYGEN-DEFICIENT ATMOSPHERS ARE IN THE FLAMMABLE
RANGE. DO NOT ENTER. AIR PRUIFYING RESPIRATORS WILL NOT FUNCTION.

Ventilation:NATURAL/MECH WHERE GAS IS PRESENT.LO

C

EXHAU/MECH(GEN)/OTHER:AS NECESSARY.MECH VENTI FOR ENCLSD STROAGE
AREAS MUST (SUPP)

Protective Gloves:LEATHER-CYL HANDLE;WELDERS-WELD/CUTTING

Eye Protection:SAFT GLASS;WELDER GOGG, ETC FOR WELDING

Other Protective Equipment:LEATHER SLEEVES & APRON,OTHER STD PROT EQMPT
FOR CUTING/WELDING.

Work Hygienic Practices:CONSULT COMPRESSED GAS ASSOC PAMPHLET P-1 &
NFPA STD #51.

Supplemental Safety and Health

FIRE/EXPLO HAZ:IGNITES VERY EASILY DUE TO LOW MIN IGN ENERGY;VERY WIDE
FLAMM

LIMITS.ACETYLENE GAS HAS APPROXIMATE SPEC GRAVITY OF 1.0 &

TENDS TO STAY IN POCKETS RATHER THAN DISSIPATE. VENTI:MEET NAT E
LECTRICAL CODE REQMTS FOR CLASS 1 GROUPA.

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

HCC:G2

Boiling Pt:B.P. Text:-119F,-84C

Melt/Freeze Pt:M.P/F.P Text:-113F,-81C

Vapor Pres:62F @16.8C

Vapor Density:0.0681

Spec Gravity:0.906 @20C

Appearance and Odor:PURE C2H2 COLORLESS/ODORLESS.IMPURITIES IN CARBIDE
GENERATED C2H2 GARLIC ODOR.

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

Stability Indicator/Materials to Avoid:NO

OXIDIZERS(OXY,HALOGENS);FORMS EXPLO CMPDS W/COPPER,BRASS,COPPER
SALTS,MERCURY,MERCURY SALTS,K,SILVER,SILVER SALTS,HNO3.

Stability Condition to Avoid:NEVER UTILIZE FREE GAS OUTSIDE CYL @PRESS
>15PSIG.AVOID MECHANICAL SHOCKS TO CNTNR.NEVER EXPO CYL/GAS SYS TO
HEAT SOURCE

Hazardous Decomposition Products:ACETYLENE WILL DECOMPOSE INTO
ELEMENTAL CARBON & HYDROGEN UNDER THE ABOVE CO
NDITIONS.

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

Waste Disposal Methods:DO NOT ATTEMPT TO DISPOSE OF RESIDUAL GAS IN
CYLINDERS. RETURN CYLINDERS TO AIR PRODUCTS FOR DISPOSAL. ACETYLENE
PACKED IN DOT SPECIFICATIONS 8 OR 8AL CYL W/POROUS FILLER STURATED
W/ACETONE. FULL CYL SHOULD NOT EXCEED 250PSIG @70F.

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