

ACETYLENE, ETHYNE, ETHINE

MSDS Number

BHDVS

National Stock Number

6830-00-765-0156

Product Name

ACETYLENE, ETHYNE, ETHINE

Manufacturer

AIR PRODUCTS AND CHEMICALS INC

Product Identification

Product ID:ACETYLENE, ETHYNE, ETHINE

MSDS Date:07/10/1986

FSC:6830

NIIN:00-765-0156

MSDS Number: BHDVS

Responsible Party

AIR PRODUCTS AND CHEMICALS, INC.

2043 S 35TH ST

TACOMA , WA 98411-0393

US

Cage: 00742

Contractor

OXYGEN SALES AND SERVICE INC

11393

TACOMA, WA 98411-0393

US

800-345-3148/ 800-752-1597

Cage: 5H199

Ingredients

ACETYLENE, ETHYNE, ETHINE

CAS: 74-86-2

Hazards

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:DO NOT ENTER AREAS WITHIN THE FLAMMABLE RANGE DUE TO THE IMMEDIATE FIRE AND EXPLHAZARD.

ACETYLENE IS A SIMPLE ASPHYXIAN, IRRITANT, AND ANESTHETIC.

Effects of Overexposure:SYMPTOMS SUCH AS HEADACHES, DIZZINESS, SHORTNESS OF BREATH, & LOSS OF CONSCIOUS-NESS MAY OCCUR IF THE GAS IS PRESENT IN QUANTITIES SUFFICIENT TO DILUTE THE OXY CONCENTRATION IN AIR. SYMPTOMS OF ANOXIA OCCUR ONLY WHEN THE GAS CONCENTRATIONSARE WITHIN THE FLAMMABLE RANGE AND THE MIXTURE HAS NOT IGNITED.

Medical Cond Aggravated by Exposure:ACETYLENE IS A SIMPLE ASPHYXIAN, IRRITANT, AND ANESTHETIC.ABOUT 100MG PER LITER MAY BE TOLERATED FOR .5 - 1 HR. THERE IS NO EXPERIMENTAL EVIDENCE OF CHRONIC HARMFUL EFFECTS.

First Aid

First Aid:FIRST DEGREE & MINOR SECOND DEGREE THERMAL BURNS FROM FIRES SHOULD BE IMMERSSED IN COOL WATER FOR 30 MIN.MAJOR SEC & THIRD DEGREE BURNS SHOULD BE COVERED IN THE CLEANEST MATERIAL AVAIL.SEEK IMMED. PHYSICIAN AID. PERSONS SUFFERING FROM LACK OF OXY SHOULD BE MOVED TO NORMAL ATMOS. AREA. CPR SHOULD BE GIVEN IF THE VICTIM IS NOT BREATHING.

Fire Fighting

Flash Point Method:CC
Flash Point:0F(-18C)
Autoignition Temp:Autoignition Temp Text:581F
Lower Limits:100%
Upper Limits:2.5%
Extinguishing Media:CARBON DIOXIDE, DRY CHEMICAL, HALON
*SOLUBILITY IN WATER: 64F/18C, 1ATM 1.0 CUFT/CUFT H₂O
Fire Fighting Procedures:STOP GAS FLOW. USE WATER SPRAY TO KEEP CYLINDERS OR OTHER CONTAINERS COOL. KEEP ALL CLEAR SINCE CONTAINERS CAN RUPTURE VIOLENTLY. SEE CGA SAFETY BULLETIN SB-4.
Unusual Fire/Explosion Hazard:ACETYLENE IS EXTREMELY FLAMMABLE & EXPLOSIVE.IT BURNS WITH INTENSELY HOT FLAME. WIDE FLAMMABLE LIMITS. IGNITES EASILY. STAYS IN POCKETS RATHER THAN DISSIPATE.

Accidental Release

Spill Release Procedures:VENTILATE AREA TO PREVENT FLAMMABLE MIXTURE FROM FORMING.REMOVE SOURCES OF IGNITION, HEAT, SPARKS, ETC. AVOID ENTERING AREA OF FLAMMABLE ATMOSPHERE. CAREFULLY REMOVE CYLINDERS WITH SLOW LEAKS TO A REMOTE OUTDOOR AREA.CONTACT AIR PRODUCTS FOR ASSIST.

Handling

Handling and Storage Precautions:USE IN WELL VENTILATED AREA.ALWAYS KEEP CYL. SECURE & UPRIGHT.OPEN/CLOSE VALVES SLOWLY.SEE CGA PAMP P1KEEP AWAY FROM HEAT. SEGREGATE FULL/EMPTY CYLINDER
Other Precautions:AVOID HAZARDOUS MIXTURES AND SOURCES OF IGNITION. COMPRESSED GAS CYL. SHOULDN'T BE REFILLED EXCEPT BY QUALIFIED PRODUCERS OF COMPRESSED GAS. AVOID EXPOSURE TO AREAS WHERE SALT OR OTHER CORROSIVE CHEMICALS ARE PRESENT.

Exposure Controls

Respiratory Protection:OXYGEN-DEFICIENT ATMOSPHERES ARE IN THE FLAMMABLE RANGE. DO NOT ENTER! RESPIRATORS WILL NOT FUNCTION.
Ventilation:NATURAL OR MECHANICAL WHERE GAS IS PRESENT.
Protective Gloves:LEATHER:WELDING GLOVES FOR WELD OPERATIO
Eye Protection:SAFETY GLASSES:WELDER GOGGLES FOR WELDING
Other Protective Equipment:LEATHER SLEEVES, LEATHER APRON AND OTHER STANDARD PROTECTIVE EQUIPMENT FOR CUTTING AND WELDING.
Supplemental Safety and Health
MECHANICAL VENTILATION FOR ENCLOSED STORAGE AREAS MUST MEET NATIONAL ELECTRICAL CODE REQUIREMENTS FOR CLASS 1, GROUP A. AVOID HAZARDOUS MIXTURES AND SOURCES OF IGNITION.FORMATION OF EXPLOSIVE COPPER ACETYLIDES CAN BE AVOIDED BY USING COPPER ALLOYS PROVED SUCCESSFUL THROUGH USE IN INDUSTRY.

Chemical Properties

Boiling Pt:B.P. Text:-119F/-84C
Vapor Pres:*SEE BELOW
Vapor Density:*SEE BELOW
Spec Gravity:68F/20C 1ATM 0.906
Solubility in Water:*SEE BELOW
Appearance and Odor:PURE ACETYLENE IS COLORLESS & ODORLESS. IMPURITIES GENERATE GARLIC-LIKE ODOR.

Stability

Stability Indicator/Materials to Avoid:NO
OXYDIZERS SUCH AS OXYGEN & HALOGENS.FORMS EXPLOSIVE COMPOUND WITH COPPER,BRASS,COPPER SALTS,HG&HG SALTS,K,AG&AG SALTS,HNO

Stability Condition to Avoid: NEVER UTILIZE FREE GAS OUTSIDE CYL. NEVER EXPOSE TO HEAT. AVOID MECHANICAL SHOCKS TO CONTAINERS OF ACETYLENE.

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

Disposal

Waste Disposal Methods: DO NOT ATTEMPT TO DISPOSE OF RESIDUAL GASEOUS ACETYLENE IN CYLINDERS. RETURN TO AIR PRODUCTS FOR DISPOSAL.

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