

ACETYLENE, ETHYNE, ETHINE

MSDS Number

BHDJH

National Stock Number

6830-00-290-4370

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:00-290-4370

MSDS Number: BHDJH

Responsible Party

AIR PRODUCTS AND CHEMICALS, INC.

2043 S 35TH ST

ALLENTOWN , PA 18105

US

Emergency Phone: 1-800-322-9092

Info Phone: 215-481-4911

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 ASPHYXIANT, 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 WITH THE FLAMMABLE RANGE AND THE MIXTURE HAS NOT IGNITED.

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 IMMEDIATE PHYSICIAN AID. PERSONS SUFFERINGFROM LACK OF OXY SHOULD BE MOVED TO AREAS WITH NORMAL ATMOS. CPR SHOULD BE GIVENIF VICTIM IS NOT BREATHING.

Fire Fighting

Flash Point Method:CC
Flash Point:0F/-18C
Autoignition Temp:Autoignition Temp Text:581F
Lower Limits:2.5%
Upper Limits:100%
Extinguishing Media:CARBON DIOXIDE, DRY CHEMICAL, HALON
Fire Fighting Procedures:WITHOUT RISK, MOVE CYLINDERS AWAY FROM FIRE AREA. FROM A SAFE DISTANCE, COOL SURROUNDING CYLINDERS WITH WATER SPRAY UNTIL WELL AFTER FIRE IS OUT.STOP GAS FLOW.
Unusual Fire/Explosion Hazard:CYLINDERS EXPOSED TO FIRE OR INTENSE HEAT MAY VENT RAPIDLY OR EXPLODE. IGNITES VERY EASILY.VERY WIDE FLAMMABLE LIMITS. BURNS WITH INTENSELY HOT FLAME.

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 ATMOS. CARE-FULLY REMOVE CYLINDERS WITH SLOW LEAKS TO A REMOTE OUTDOOR LOCATION.CONTACT AIR PRODUCTS FOR ASSISTAN

Handling

Handling and Storage Precautions:USE IN WELL VENTILATED AREA.KEEP ACETYLENE CYLINDEUPRIGHT & SECURE. NEVER EXPOSE TO HEAT. SEGREGATE FULL/EMPTY CYL. ALWAYS OPEN/CLOSE VALVES SLOWLY.
Other Precautions:AVOID EXPOSURE TO AREAS WHERE SALT OR OTHER CORROSIVE CHEMICALS ARE PRESENT.KEEPACETYLENE CYL. STORAGE AREAS AWAY FROM STORAGE OF OXY & OTHER OXIDIZERS. AVOID HAZARDOUS MIXTURES & SOURCES OF IGNITION .DO NOT REFILL COMPRESSED GAS CYLINDERS.

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:WELDER GLOVES FOR WELD OPERATION
Eye Protection:SAFETY GLASSES:WELDER GOGGLES FOR WELDIN
Other Protective Equipment:LEATHER SLEEVES, LEATHER APRON AND OTHER STANDARD PROTECTIVEEQUIPMENT FOR CUTTING AND WELDING.
Supplemental Safety and Health
MECHANICAL VENTILATION FOR ENCLOSED STORAGE AREAS MUST MEET NATIONAL ELECTRICAL CODE REQUIREMENTS FOR CLASS1, GROUP A. FORMATION OF EXPLOSIVE COPPER ACETYLIDESCAN 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:68F20C1ATM0.906
Solubility in Water:1ATM 1. CUFT/CUFTH2O
Appearance and Odor:PURE ACETYLENE IS COLORLESS AND ODORLESS. IMPURITIES GENERATE GARLIC-LIKE ODOR.

Stability

Stability Indicator/Materials to Avoid:NO OXIDIZERS SUCH AS OXYGEN & HALOGENS. FORMS EXPLOSIVE COMPNDSW/COPPER,BRASS,COPPER SALT,HG/HG SALTS,K,AG/AG SALTS,& HNO3.
Stability Condition to Avoid:AVOID MECHANICAL SHOCKS TO CONTAINERS OF ACETYLENE. NEVER EXPOSE CYLINDERS OR ACETYLENE SYSTEMS TO SOURCE OF HEAT.

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

Disposal

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

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