

## **ACETYLENE, ETHYNE, ETHINE**

### **MSDS Number**

BBKVV

### **National Stock Number**

6830-00F002382

### **Product Name**

ACETYLENE, ETHYNE, ETHINE

### **Manufacturer**

AIR PRODUCTS AND CHEMICALS INC

### **Product Identification**

Product ID:ACETYLENE, ETHYNE, ETHINE

MSDS Date:06/01/1990

FSC:6830

NIIN:00F002382

MSDS Number: BBKVV

### **Responsible Party**

AIR PRODUCTS AND CHEMICALS INC

7201 HAMILTON BLVD

ALLENTOWN , PA 18195-1501

US

Emergency Phone: 215-481-4911

Info Phone: 215-481-4911 OR FAX 215-481-5900

Cage: 00742

### **Contractor**

AIR PRODUCTS AND CHEMICALS INC

ALLENTOWN, PA 18195-1501

US

800-345-3148/ 800-752-1597

Cage: 00742

### **Ingredients**

ACETYLENE

CAS: 74-86-2

RTECS: AO9600000

OSHA PEL2500 PPM

ACGIH TLV: SIMPLE ASPHYXIAN

### **Hazards**

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

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

Health Hazards Acute and Chronic:ACETYLENE IS A SIMPLE ASPHYXIAN, IRRITANT & ANESTHETIC. ABOUT 100 MG PER LITER MAY BE TOLERATED FOR 0.5-1.0 HOUR. THERE IS NO EXPERIMENTAL EVIDENCE OF CHRONIC HARMFUL EFFECTS.

Explanation of Carcinogenicity:NONE

Effects of Overexposure:HEADACHES, DIZZINESS, SHORTNESS OF BREATH & LOSS OF CONSCIOUSNESS MAY OCCUR IF THE GAS IS PRESENT IN QUANTITIES SUFFICIENT TO DILUTE THE OXYGEN CONCENTRATION IN AIR. SYMPTOMS OF ANOXIA OCCUR ONLY WHEN THE GAS CONCENTRATIONS ARE WITHIN THE

FLAMMABLE RANGE & THE MIXTURE HAS NOT IGNITED.

## First Aid

First Aid:FIRST DEGREE & MINOR SECOND DEGREE THERMAL BURNS FROM FIRES SHOULD BE IMMERSED IN COOL WATER FOR 30 MINUTES. MAJOR SECOND & THIRD DEGREE BURNS SHOULD BE COVERED IN THE CLEANEST MATERIAL AVAILABLE. PER SONS SUFFERING FROM LACK OF OXYGEN SHOULD BE MOVED TO AREAS W/NORMAL ATMOSPHERE. ASSISTED RESPIRATION & SUPPLEMENTAL OXYGEN SHOULD BE GIVEN IF THE VICTIM IS NOT BREATHING. OBTAIN MED ATTN IN ALL CASES

## Fire Fighting

Flash Point Method:CC  
Flash Point:0F/-18C  
Lower Limits:2.5%  
Upper Limits:100%  
Extinguishing Media:CO2, DRY CHEMICAL, HALON  
Fire Fighting Procedures:STOP GLAS FLOW & FIGHT FIRE CONVENTIONALLY. USE WATER SPRAY TO KEEP CYLINDERS & OTHER CONTAINERS COOL IF EXPOSED TO FIRE. KEEP PERSONNEL AWAY.  
Unusual Fire/Explosion Hazard:FLAMMABLE/EXPLOSIVE. MAY DECOMPOSE VIOLENTLY IN ITS FREE STATE UNDER PRESSURE >15 PSIG. BURNS W/HOT FLAME. IGNITES EASILY DUE TO LOW MINIMUM IGNITION ENERGY.

## Accidental Release

Spill Release Procedures:VENTILATE AREA TO PREVENT FLAMMABLE MIXTURE FROM FORMING. REMOVE SOURCES OF IGNITION. AVOID ENTERING AREA OF FLAMMABLE ATMOSPHERE. CAREFULLY REMOVE CYLINDERS W/SLOW LEAKS TO A REMOTE, OUTDOOR LOCATION .

## Handling

Handling and Storage Precautions:USE ONLY IN WELL VENTILATED AREAS. HANDLE CYLINDERS W/CARE. USE A PRESSURE REDUCING REGULATOR SET AT LESS THAN 15 PSIG. NEVER EXPOSE TO HEAT.  
Other Precautions:ALWAYS KEEP CYLINDERS UPRIGHT & SECURE CYLINDERS WHEN IN USE. ALWAYS OPEN & CLOSE ACETYLENE VALVES SLOWLY. RETURN CYLINDERS W/POSITIVE PRESSURE & CYLINDER VALVE CLOSED. AVOID DRAGGING/ROLLING/SLIDING CYLINDERS, EVEN A SHORT DISTANCE. SUPP.

## Exposure Controls

Respiratory Protection:OXYGEN DEFICIENT ATMOSPHERES ARE IN THE FLAMMABLE RANGE. DON'T ENTER. AIR PURIFYING RESPIRATORS WILL NOT FUNCTION.  
Ventilation:LOCAL EXHAUST/MECHANICAL (GENERAL): AS NECESSARY. MECHANICAL MUST MEET NATL ELEC CODE REQUIREMENTS FOR CLASS 1, GROUP A  
Protective Gloves:LEATHER, WELDERS  
Eye Protection:SAFETY GLASSES, WELDER GOGGLES  
Other Protective Equipment:LEATHER SLEEVES, LEATHER APRON & OTHER STANDARD PROTECTIVE EQUIPMENT FOR CUTTING & WELDING.  
Supplemental Safety and Health  
USE A HAND TRUCK. STORAGE OF 2500 CUBIC FEET OR LESS IS PERMISSIBLE WITHIN BLDGS. STORAGE IN EXCESS OF 2500 CUBIC FEET MUST BE OUTDOORS OR IN WELL VENTILATED SPECIAL ROOMS OR BLDGS. DON'T STORE IN HEA VY TRAFFIC AREAS. VALVE CAPS SHOULD REMAIN ON CYLIDNERS NOT CONNECTED FOR USE. SEGREGATE FULL & EMPTY CYLINDERS.

## Chemical Properties

Boiling Pt:B.P. Text:-119F/-84C  
Melt/Freeze Pt:M.P/F.P Text:-113F/-81C  
Vapor Pres:590 PSIA  
Vapor Density:0.0681  
Spec Gravity:0.906  
Appearance and Odor:PURE ACETYLENE IS COLORLESS/ODORLESS.

## Stability

Stability Indicator/Materials to Avoid:NO

OXYGEN & HALOGENS. COPPER/BRASS/COPPER SALTS/MERCURY/MERCURY SALTS/POTASSIUM/SILVER/SILVER SALTS & NITRIC ACID.  
Stability Condition to Avoid: AVOID MECHANICAL SHOCKS TO CONTAINER OF ACETYLENE. NEVER EXPOSE CYLINDER OR ACETYLENE SYSTEMS TO SOURCES OF HEAT.  
Hazardous Decomposition Products: ACETYLENE WILL DECOMPOSE INTO ELEMENTAL CARBON & HYDROGEN.

## Disposal

Waste Disposal Methods: DO NOT ATTEMPT TO DISPOSE OF RESIDUAL GAS IN CYLINDERS. RETURN CYLINDERS TO AIR PRODUCTS FOR DISPOSAL. FLAMMABLE GAS. UN 1001.

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