

Asiatic Gases Limited

MATERIAL SAFETY DATA SHEET (MSDS)

1. CHEMICAL IDENTIFY.

ACETYLENE

Chemical Name	Acetylene	Trade Name	Acetylene	
Synonyms	Ethyne, Ethine	Chemical Classification	Hydrocarbon gas (dissolved in acetone)	
Formula	CHECH	CAS Number	74-86-2	
U.N.Number	1001	U.N. Hazard class	2.3	
Hazchem Code (E.A.C.)	4 Z	ADR H.I.N.	23	
REGULATED IDENTIFICATION		HAZARDOUS INGREDIENTS		CAS No.
Shipping Name		(1) Acetylene		74.86.2
Shipping code/Lable		(2) Acetone (dimethylketone)		67.64 – 1
Hazardous Waste Id.No.		(3) -		-
Uses : Gas cutting and welding Organic Sythesis				

2. PHYSICAL AND CHEMICAL DATA

Boiling Point/ Range, °C	-84	Physical State	Gas	Appearance	Colourless
Melting Freezing point °C	- 81.8	Vapor Pressure (at 20°C), atm	40	Odour	Garlic – like
Vapor Density (air = 1)	0.90	Solubility in Water (at 30°C)	Very slight	Other information : Soluble in most organic solvents.	
Specific Gravity (at-84°C) (Water = 1)	0.613 (Pure liquid)	pH	Not pertinent		

3. FIRE AND EXPLOSION HAZARD DATA

Flash Point, °C (CC) (OC)	-18	Flammability LEL, % v UEL, % v	2.5	TDG Flammability	2
Explosion Sensitivity to Impact	No.	Explosion Sensitivity to Static Electricity	Yes	Autoignition Temperature, C	305
Combustible Material	Yes	Explosive Material	No.	Hazardous Polymerisation	Yes
Flammable Material	Yes	Oxidiser	No.	Corrosive Material	No.
Pyrophoric Material	No.	Organic Peroxide	No.	Other Information	
Hazardous Combuston Products	None				

4. REACTIVITY DATA

Chemical Stability	Stable under normal conditions
Incompatibility with other Materials	Brass copper salt, copper carbide, RbH, halogens, HNO, oxidisers, etc. Powdered salts of mercury cobalt, potassium, silver, etc.
Reactivity	Reacts vigorously with trifluoromethyl hypofluoride and salts of silver, copper & mercury.
Hazardous Reaction Products.	Reacts with copper to form the explosive copper acetylide.

5. HEALTH HAZARD DATA

Route of Entry	Inhalation			
Effects of Exposure/ Symptoms	Suffocation will occur by shortage of oxygen, Vertigo, headache, nausea, unconsciousness, coma, Irritation of central nervous system and eyes. Contact with liquid can cause cold burns			
Emergency Treatment	If inhaled, remove victim to fresh air, Give artificial respiration, if breathing has stopped Obtain medical attention immediately.			
Permissible Exposure Limit	TLV – TWA (ACGIH)	DNA (Simple asphyxiant)	STEL (ACGIH)	DNA
LC.50 thl.hmn : DNA	IDLH	DNA	Odour Threshold	DNA
NFPA Hazard Signals	Health 1	Flammability 4	Reactivity 3	Special —

6. PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT	Use PVC or leather gloves and overall, Use breathing apparatus if required.
HANDLING AND STORAGE PRECAUTIONS	Store in a cool, clean, ventilated, fireproof storage area. Keep away from heat sparks, open and incompatibility materials. Product containers against physical damage.

7. MERGENCY AND FIRST – AID MEASURE

FIRE (Class of Fire : C)	
Fire Extinguishing Media	Dry agent (CO2 dry chemical powder or halon)
Special Procedures	None
Unusual Hazards	None
Exposure	
First- Aid Measures	Eyes : Not pertinent Skin : Not pertinent Inhalation : Remove victim to fresh air. If not breathing give artificial Respiration. Injection : not pertinent (gas) Obtain medical attention immediately.
Antidotes / Desages	Not pertinent
SPILLS	
Steps to be taken	Stop leak, of sale to do so Eliminate all sources of ignition. Use personal protective equipment. Cordon off the area stay upwind.
Waste Disposal Method	Allow to vaporize. Water screens may be used to prevent horizontal spreading on the Floor or ground.

8. ADDITIONAL INFORMATION REFERENCES.

ECOLOGICAL INFORMATION	
Ecotoxicity	Not harmful to aquate life Aquatic toxicity 1000 mid/1h/sunfish/not killed/fresh water.
Persistence	DNA
OTHER INFORMATION	Transport acetylene through bees of small diameter. Material for fittings etc. must not contain more than 63% copper. Welding should be executed under the discharge pressures not exceeding 15 psig.
REFERENCES (FOR OBTAINING MORE INFORMATION)	
(1) Hazardous Chemicals Data Book gweiss Noyes Data Corp. USA	(4) Handbook of Environmental Data : Karen Verschueren van Nostrand reinhold Co. USA
(2) Bangerous Properties of industrial Materials N.I.Sax Van Nostrand Reinhold Co.USA	(5) Toxic and Hazardous Industrial Chemicals Safety Manual the International Safety and Health Guidelines for Chemical
(3) The Sigma – Aldrich Liberary of Chemical Safety Data Sigma – Aldrich Corporation, USA	(6) Occupational Safety and Health Guidelines for chemical Hazards : NIOSH/OSHA : U.S. Department of Health and Human Services and U.S. Department of Labour U.S.A.

9. MANUFACTURER / SUPPLIERS DATA

Asiatic Gases Ltd., 509 Om Prakash Arcade, Central Avenue Road. Chembur 400071	Contact person	Emergency Leader
	In Emergency	(Thane plant)
	Local Bodies Involved	The District Collector
	Standard Packing	Cylinder
	Tremcard Dealers/ Ref.	Supplier's Tremcard
Others	

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