Gujarat Narmada Valley
Fertilizers & Chemicals Limited
(An ISO 14001 & OHSAS 18001 Company)

P. O. Narmadanagar - 392 015, Dist. Bharuch, Gujarat, India
Ph (02642) 247001, 247002
Website www.gnfc.in

METHANOL

1. CHEMICAL IDENTITY

Chemical Name : Methanol
Chemical Classification : Alcohol
Synonyms : Methyl Alcohol, wood alcohol, wood spirit, Colonial Spirit
Trade Name :
Formula : CH_3OH
C.A.S. No. : 67-56-1
U.N. No.: 1230

Regulated Identification :

Shipping Name : Methanol
Codes/Label : Flammable Liquid, Class 3
Hazchem Code No. : 2 P E
Hazardous waste I.D. No. : 17
Hazardous ingredients : C. A. S. No.
1. Methyl alcohol 67-56-1

2. PHYSICAL AND CHEMICAL DATA

Boiling Range/point degreeC : 64.5
Physical State: Liquid
Appearance :Colourless, Watery
Odour : Alcoholic odour
Melting/Freezing Point degree C : - 97.8
Vapour Pressure at 35 degree C : 100 mm Hg at 21.2 degree C
Vapour Density : 1.10 (Air = 1)
Solubility in water at 30 degree C : Miscible
Others : Miscible with Ethanol, Ether, Benzene, Ketones & Other Organic solvents. Vapours forms explosive mixtures with air and Oxygen.
Specific Gravity : 0.79 Water = 1
pH : Neutral

3. FIRE AND EXPLOSION HAZARD DATA

Flammability : Yes
LEL : 6.0 %
UEL : 36.5 %
Flash Point degree C : 16.1 (OC) vapours form explosive mixture with air/oxygen.
Autoignition temperature degree C
TDG Flammability : 3
Flash Point degree C : 11.11 (CC)
463.8
Explosion Sensitivity to Impact : Stable
Explosion Sensitivity to Static Electricity : Yes. Vapours are explosive
Hazardous Combustion Products : Emits acrid smoke and irritating fumes, CO.

Hazardous Polymerisation : Will not occur

Combustible liquid : Yes	Explosive Material : No	Corrosive Material :	NO
Flammable Material : Yes	Oxidiser : No	Others :	No

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Pyrophoric Material : No Organic Peroxide : No

4. REACTIVITY DATA

Chemical Stability :	Stable
Incompatibility with other material :	Strong Oxidisers, Berylium Dihydride, Metals (K, Mg), Carbon Tetra chloride + Metals (Al, Mg, Zn), Oxidants.
Reactivity :	Violent reaction with alkaline aluminium salt, acetyl bromide, chloroform + sodium hydroxide, Nitric acid, $HClO_4$, $P2O_3$.
Hazardous Reaction Products :	Combustion will produce carbon monoxide and asphyxiants.

5. HEALTH HAZARDS DATA

Routes of Entry	Inhalation, Ingestion, Eyes and skin.
Effects of Exposure/Symptoms	High concentrations can produce central nervous system depression and optic nerve damage. 50,000 ppm will probably cause death in 1-2 hrs. , is absorbed through skin. Swallowing may cause death or eye damage.
Eyes	Liquid may cause conjunctival irritation and transient corneal damage. vapour may cause conjunctival irritation.
Skin	Material may cause irritation. Repeated or prolonged contact may produce defatting of the skin leading to irritation and dermatitis. Liquid may be absorbed through the skin in toxicologically significant amounts if area of contact is large and exposure prolonged.
Ingestion	Swallowing may have the following effects : Symptoms similar to alcohol intoxication, Central nervous system depression, nausea, vomiting, loss of co-ordination, temporary or permanent blindness, coma and death.
Inhalation	Exposure to vapour may have the following effects :- Headache. Exposure to vapour at concentrations of 1000 ppm and above may have the following effect Systemic effects similar to those resulting from ingestion. Because of slow elimination from the body repeated exposures may result in accumulation.
Emergency Treatment	Remove the victim from exposed area and apply artificial respiration if breathing has stopped. Induce vomiting and give 2 teaspoons of baking soda in a glass of water. In case of skin or eyes flush with plenty of water for 15 minutes. Seek medical aid.

TLV (ACGIH)	200 ppm	260 mg/m^3	STEL : 250 ppm,	310 mg/m^3
Permissible			Odour Threshold	
Exposure Limit	200 ppm	260 mg/m^3	100 ppm,	130.87mg/m^3
LD - 50 (Oral Rate)	5628 mg/kg	IDLH	25000 ppm,	19230 mg/m^3
NFPA Hazard Signals	Health	Flammability	Reactivity	Special
	1	3	0	--

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