



PETRONAS

METHANOL

PETRONAS CHEMICALS GROUP BERHAD
CHEMISTRY FOR GROWTH



METHANOL

Methanol, also known as methyl alcohol, wood alcohol, wood naphtha or wood spirits, has the chemical formula CH₃OH (often abbreviated MeOH). The simplest alcohol, it is a light, volatile, colourless, flammable liquid with a distinctive odour similar to ethanol (drinking alcohol) but is highly toxic.

Product Applications

PCG Methanol Plants

PETRONAS CHEMICALS FERTILISER (KEDAH) SDN. BHD. (PCFK)

- Gurun, Kedah
- 70 KMTPA

PETRONAS CHEMICALS METHANOL LABUAN SDN. BHD. (PC METHANOL)

- Federal Territory of Labuan
- PC Methanol 1: 700 KMTPA
- PC Methanol 2: 1700 KMTPA

PRODUCT	DERIVATIVES	APPLICATIONS	
Methanol	Formaldehyde	<ul style="list-style-type: none"> • Formalin • Glues & Resins • Methylendiphenyl Diisocyanate (MDI) • Butanediol • Pesticides 	<ul style="list-style-type: none"> • Antibacterial agent, disinfectant, adhesives, renovation & new building activities, automobile production, coatings, panel board and wood & furniture industries.
	Acetic Acid	<ul style="list-style-type: none"> • Vinyl Acetate Monomer • Acetic Anhydride • Terephthalic Acid • Solvent Acetate 	<ul style="list-style-type: none"> • Textiles, emulsion paints, solvents & coatings, durable output, automobile production and plastic packaging.
	Chemicals	<ul style="list-style-type: none"> • Methyl Methacrylate (MMA) • Solvents • Methylamines • Chloromethane • Dimethyl Ether (DME) • Olefins 	<ul style="list-style-type: none"> • Clear plastic sheets, thickeners, propellant & aerosols and chemical intermediates.
	Fuel	<ul style="list-style-type: none"> • Methyl Tertiary Butyl Ether (MTBE) • Fuel Cells • Bio-Diesel • Gasoline Blending • Power Generation 	<ul style="list-style-type: none"> • Gasoline additives, new & environmentally friendly energy sources and power generation.

Product Specifications

CHARACTERISTICS	METHODS	LIMIT SPECIFICATIONS
Acidity as Acetic Acid	ASTM D 1613-06	Less than 30 mg/kg
Acetone Content	IMPCA 001-09	Less than 30 mg/kg
Ethanol Content	IMPCA 001-09	Less than 50 mg/kg
Methanol Purity	IMPCA 001-09	Min 99.85 % weight
Appearance	IMPCA 003-98	Clear and free of suspended matter
Hydrocarbons	ASTM D 1722-09	Pass test
Carbonisable Substances	ASTM E 346-08	Less than colour std. 30
Colour	ASTM D 1209-05 (reapprove 2011)	Less than colour std. 5
Water Content	ASTM E 1064-12	Less than 0.1 % weight
Distillation Range @ 760mm Hg	ASTM D 1078-11	Max. 1.0 °C to include 64.6° ± 0.1°
Non-volatile Matter	ASTM D 1353-13	Less than 0.8 mg/100 ml
Specific Gravity	ASTM D 4052-11	0.791-0.793 @ 20°C/20°C
Permanganate Time @ 15°C	ASTM D 1363-06 (reapprove 2011)	Greater than 60 minutes
Sulphur	ASTM D 5453-09	Less than 0.50 mg/kg
Iron	ASTM E 394-09	Less than 0.10 mg/kg
Chloride	IMPCA 002-98	Less than 0.50 mg/kg
Odour	ASTM E 346-08	Odour-free