



PETRONAS

PROPYLENE

PETRONAS CHEMICALS GROUP BERHAD
CHEMISTRY FOR GROWTH



PCG Propylene Plant

PETRONAS CHEMICALS MTBE SDN. BHD.

- Gebeng, Pahang
- 380 KMTPA

PROPYLENE

Propylene, also called propene is an olefin with the chemical formula C_3H_6 . A colourless gas, it is obtained from the thermal cracking of hydrocarbons ranging from natural gas liquids (ethane, propane and butane) to petroleum liquids (naphtha and gas oils).

Product Applications

PRODUCT	DERIVATIVES		APPLICATIONS
Propylene	Plastics	Polypropylene	<ul style="list-style-type: none"> • Plastic for food industry and housewares. • Interior trim and bumper systems for automotive industry. • Toys production. • Insulation material for electrical cables.
		Propylene Oxide	<ul style="list-style-type: none"> • Reinforced plastics for insulation material in construction, transportation and refrigeration applications. • Cushioning material in furniture and bedding applications. • Sealants and adhesives.
		Acrylonitrile	<ul style="list-style-type: none"> • Thermoplastic polymer, insulation materials and packaging.
		Acrylic Acid	<ul style="list-style-type: none"> • Used in adhesives, lacquers, dyestuffs and paper industries. • Monomer for superabsorbent polymers for manufacturing of diapers, feminine hygiene and personal care products.
	Chemicals	2-Ethyl and Butanol	<ul style="list-style-type: none"> • Pharmaceutical solvents, cosmetics, toiletries and liquid detergents.

Product Specifications

COMPONENTS	UNITS	RESULTS	METHODS
C1 + C2 + C2 =	% Weight	0.01 max	ASTM 2712-modified
Acetylene	% Weight	0.0001 max	ASTM 2712-modified
Propane	% Weight	0.5 max	ASTM 2712-modified
Propylene	% Weight	99.5 min	ASTM 2712-modified
Methyl Acetylene + Propadiene	% Weight	0.001 max	ASTM 2712-modified
1,3-Butadiene	% Weight	0.0005 max	ASTM 2712-modified
C4, C5 and heavier	% Weight	0.002 max	ASTM 2712-modified
Total Nitrogen	ppm weight	0.5 max	ASTM D5453-modified
Total Sulphur	ppm weight	0.3 max	ASTM D5453-modified
Total Chloride	ppm mole	2 max	In house method
CO	ppm mole	5 max	UOP 603-modified
CO ₂	ppm mole	10 max	UOP 603-modified