



Arak Petrochemical Company



ISO 9001:2000

Certificate No.: CH98/8032

ISO 14001:2004

Certificate No.: CH03/0112

OHSAS 18001:1999

Certificate No.: CH05/0675

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## Normal butanol (NB)

Characteristic	Test Method	Unit	Value
PURITY	ASTM D - 5008	WT.%	99.5 MIN.
COLOR	ASTM D - 1209	APHA	10 MAX.
WATER	ASTM D - 1364	WT.%	0.1 MAX.
ALDEHYDES	ASTM E - 411	WT.%	0.05 MAX.
ACIDITY (AS ACETIC ACID)	ASTM D - 1613	WT.%	0.01 MAX.
SULPHURIC ACID COLOR	ASTM E - 852	APHA	25 MAX.
UNKNOWN	ASTM D - 5008	WT.%	NONE

**N-BUTANOL** is a clear, mobile, neutral liquid with a characteristic odor. It is miscible with all common solvents, e.g., alcohols, ketones, aldehydes, ethers, glycols, and aromatic and aliphatic hydro carbons, but is only sparingly soluble in water.

○ **Application areas:**

A large part of the **N-BUTANOL** produced is converted into derivatives (primarily esters) for use as solvents in the coatings industry. **N-BUTANOL** is an eminently suitable solvent for acid-curable lacquers and baking finishes derived from urea, melamine, or phenolic resins. Some butyl esters of dicarboxylic acids, phthalic anhydride, and acrylic acid are established plasticizers for plastics, rubber mixes, and dispersions. The most important are dibutyl phthalate (DBP), benzyl butyl phthalate (BBP), and butyl acrylate. Dibutyl sebacate (DBS) and dibutylazelate (DBZ) are of subordinate importance. The corresponding adipate is too volatile to be a plasticizer and is therefore of no practical significance in these applications. The applications in which normal butanol can be used are solvent for dyes, e.g. in printing inks; extractant in the production of drugs and natural substances such as antibiotics, hormones, vitamins, alkaloids and camphor; additive in polishes and cleaners, e.g. floor cleaners and stain removers; solubilizer in the textile industry, e.g. additive in spinning baths or carrier for coloring plastics; additive in deicing fluids; gasoline additive (antiicing); mobile phase in paper and thin layer chromatography; humectant for cellulose nitrate; feedstock for the production of glycol ethers (in reactions with ethylene or propylene oxide); starting material for various butyl monocarboxylates, e.g. butyl acetate and butyl butyrate, that are widely used as solvents; feedstock for the production of flotation aids, e.g. butyl xanthate

○ **Storage conditions:**

**N-BUTANOL** can be stored in tanks of normal carbon steel. In this case, however, steps must be taken to exclude moisture from the atmosphere, as otherwise the product quality may be impaired (increase in moisture content; and discoloration by rust). **N-BUTANOL** can corrode aluminium at temperatures above 60°C. Consequently, it should never be stored, except at low temperatures, in tanks constructed from aluminium and its alloys. If severe demands are imposed on the quality of the **N-BUTANOL**, we recommend that it be stored in stainless steel (e.g. 18Cr 9Ni) tanks. Drums containing the product should be kept tightly closed in a well-ventilated space.

○ **Packing:**

Bulk or in 220 Lit (net: 180 Kg) new drums, each 4 drums strapped on a pallet.