Newtop Chemical Materials (Shanghai) Co.,Ltd. Technical Indicators/技术指标



## n-Butanol CAS71-36-3

#### Overview:

n-butanol, also known as 1-butanol, is an organic compound with the chemical formula C4H10O, a colorless transparent liquid, slightly soluble in water, soluble in most organic solvents such as ethanol and ether, mainly used in the preparation of esters, plastic plasticizers, pharmaceuticals, spray paint, also used as a solvent.

Chinese name: n-butanol

Alias: 1-butanol

English name: n-butanol; n-butyl alcohol; butanol

Molecular formula(Formula): C4H10O

Molecular Weight(Molecular Weight): 74.122

CAS No.: CAS:71-36-3

Chinese name: n-Butanol, 1-butanol

Molecular structure: See chart

Molecular Formula: C4H10O

Molecular Weight: 74.122

CAS No.: CAS:71-36-3

EINECS No.: 200-751-6

MDL No. MFCD00002964

### Physical and chemical properties:

#### Density: 0.81g/cm3

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Melting point: -89  $^\circ\!\mathrm{C}$ 

Boiling point: 117.6℃

Flash point: 29℃

Refractive index: 1.399 (20℃)

Saturated vapor pressure: 0.73kPa (20°C)

Critical temperature: 289.85 ℃

Critical pressure: 4.414MPa

Explosive upper limit (V/V): 11.3%

Lower explosion limit (V/V): 1.4%

Appearance: colorless transparent liquid

Solubility: slightly soluble in water, soluble in most organic solvents such as ethanol and

#### ether





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#### Features

Excellent chemical stability. It has the advantages of stable acid value, stable molecular weight, light color and good catalytic effect, and can completely replace potassium naphthenate. Solubility of solute is total solubility. This product is a universal sodium salt-forming agent for synthetic antibiotics by solubilization method. Compared with the traditional salt-forming agent sodium acetate, its obvious advantage is its mildness and stability after salt formation, and it can be soluble in many organic solvents, which is conducive to the separation of anhydrous final products and improves the quality and yield of products.

#### Uses:

The role and use of n-butanol is a pharmaceutical excipient.

Mainly used in the manufacture of phthalic acid, aliphatic dibasic acid and phosphoric acid n-butyl ester type plasticizers, they are widely used in a variety of plastics and rubber products, but also organic synthesis in the manufacture of butyraldehyde, butyric acid, butylamine and butyl lactate and other raw materials. They are also used as extractants for oils and fats, drugs (such as antibiotics, hormones and vitamins) and spices, additives for alkyd resin coatings, etc. They can also be used as solvents for organic dyes and printing inks, and dewaxing agents.

Used in the production of butyl acetate, dibutyl phthalate and phosphoric acid plasticizers, also used in the production of melamine resin, acrylic acid, epoxy varnish, etc.; used as a chromatographic analysis reagent, also used in organic synthesis, etc.; used in the

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preparation of bananas, cream, whiskey and cheese and other types of edible flavors.

Toxicity of n-butanol: a low toxicity category Acute toxicity: LD504360mg/kg (rat oral); 3400mg/kg (rabbit percutaneous); LC5024240mg/m3, 4 hours (rat inhalation)

Sub-acute toxicity: rats, mice inhalation 0.8 mg/m3, 24 hours / week, 4 months, abnormal liver and skin function; human inhalation  $303 \times \text{mg} / \text{m} \times 10$  years, mucous membrane irritation, loss of smell; human inhalation  $606 \text{mg/m3} \times 10$  years, red blood cell count reduction, occasional eye irritation symptoms; human inhalation  $150-780 \text{mg/m3} \times 10$  years, burning sensation in the eyes, general discomfort, the Corneal inflammation.

## Storage and transportation:

Should be sealed and stored in a dry, cool and ventilated warehouse

### Package:

200KG/drum Storage: It is recommended to store in a dry and cool area with proper ventilation. Please fasten the lid as soon as possible after the original packaging to prevent the mixing of other substances such as water and other substances from affecting the product performance. Do not inhale dust and avoid skin and mucous membrane contact. Smoking, eating and drinking are prohibited in the workplace. After work, shower and change clothes. Store contaminated clothes separately and wash them

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before use. Maintain good hygiene habits.