Chemical Name: Molecular formula: $\text{C}_4\text{H}_{10}\text{O}$
CAS No.: 71-36-3
Abbreviation: NB

General Description:
N-Butanol is a clear, colorless liquid with characteristic odor. N-butanol is inconsistent with strong oxidizers (permanganates, perhydrrol). It reacts with strong mineral acids.

The product is miscible with all common solvents (alcohols, ketones, aldehydes, ethers, glycols and aromatic and aliphatic hydrocarbons), but is sparingly soluble in water.

Technical Quality Conditions:

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>MU Values</th>
<th>Test methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-butanol, min.</td>
<td>% 99.0</td>
<td>ILL-033/1-01-68</td>
</tr>
<tr>
<td>Distillation range (95% vol.)</td>
<td>ºC 116.0-118.5</td>
<td>ASTM D 1078</td>
</tr>
<tr>
<td>Acidity (CH$_3$COOH), max.</td>
<td>% 0.005</td>
<td>ASTM D 1613</td>
</tr>
<tr>
<td>Water (Karl-Fischer), max.</td>
<td>% 0.1</td>
<td>ASTM E 203</td>
</tr>
<tr>
<td>Color, max.</td>
<td>Hazen units 10</td>
<td>SR ISO 2211</td>
</tr>
</tbody>
</table>

Specific Properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density, g/cm$^3$</td>
<td>0.810</td>
</tr>
<tr>
<td>Boiling temperature, ºC</td>
<td>117.5</td>
</tr>
<tr>
<td>Ignition temperature, ºC</td>
<td>34</td>
</tr>
</tbody>
</table>

Flammability: flammable

The specific properties present approximate values and contain general information, without being part of the technical quality conditions.

Main Applications:
- plastic materials and rubber industries;
- solvent in the industry of nitro-cellulose and alkyd resins based varnishes;
- solvent in synthetic leather manufacturing;
- extraction agent for oils, drugs, perfumes;
- raw material in production of hormones, vitamins;
- in plasticizers industry (dibutyl phthalate);
- solvent for urea and phenol resin based varnishes, oven dried.
Shipping Information:

- 20 or 40 stainless steel tank cars or carbon steel tanks.

Storage:

Store in cold, well ventilated areas, away from oxidizers and flammable sources. Flooring should be waterproof and inflammable, provided with water retaining and separating pails to avoid liquid spread in case of accidental leakage. In case of reservoirs storage, a nitrogen blanket and vents with flame traps are recommended.

N-butanol can corrode aluminum at temperatures above 60°C. Consequently, it should never be stored, except at low temperatures, in tanks constructed from aluminum and its alloys.

Safety Considerations:

Please refer to the product Material Safety Data Sheet (MSDS) offering customers help to better satisfy their particular handling, safety and disposal needs and those that may be required by locally applicable health and safety regulations.

Warning:

N-Butanol is considered to be a toxic product.
N-Butanol vapors produce eyes and skin irritation, dizziness and headaches

Attention:

Information contained in this document is provided to the best of our knowledge and experience.

Please contact OLTCHIM to see if the document has been revised

Important:

For a better suitability of the product for your particular purpose, tests are recommended prior product use. You are advised to make your own determination as to safety, appropriate manner of handling, storage, use and disposal. All the information contained in this product technical sheet is offered for your consideration, investigation and verification. The data is presented in good faith and is believed to be reliable. You should not consider the descriptions, information, data or design as a part of our terms and conditions of sale. We expressly disclaim responsibility or liability for any loss, damage or expense arising out of non-compliance with the information provided herein.