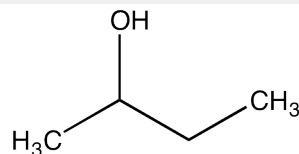


## 2-Butanol, reagent grade

### Identification

$C_4H_{10}O$   
M = 74,12 g/mol  
CAS [78-92-2]  
EC number: 201-158-5  
Taric code: 2905 14 90



### Synonyms

sec-Butyl alcohol, Butyl alcohol secondary, Ethyl methyl carbinol

### Applications

analytical chemistry, synthesis of organic products and perfumery.

### Specifications

|                             |                   |                                   |                 |
|-----------------------------|-------------------|-----------------------------------|-----------------|
| assay (G.C.).....           | min. 99,5 %       | iron (Fe).....                    | max. 0,00001 %  |
| identity (IR-spectrum)..... | passes test       | lead (Pb).....                    | max. 0,00001 %  |
| density (20°/4°).....       | 0,805 - 0,809     | magnesium (Mg).....               | max. 0,00001 %  |
| colour (Hazen).....         | max. 10           | manganese (Mn).....               | max. 0,000002 % |
| acidity.....                | max. 0,0005 meq/g | nickel (Ni).....                  | max. 0,000002 % |
| aluminium (Al).....         | max. 0,00005 %    | tin (Sn).....                     | max. 0,00001 %  |
| alkalinity.....             | max. 0,0002 meq/g | zinc (Zn).....                    | max. 0,00001 %  |
| barium (Ba).....            | max. 0,00001 %    | tert-butanol (G.C.).....          | max. 0,1 %      |
| boron (B).....              | max. 0,000002 %   | dibutyl ether (G.C.).....         | max. 0,2 %      |
| cadmium (Cd).....           | max. 0,000005 %   | methylethylketone (G.C.).....     | max. 0,1 %      |
| calcium (Ca).....           | max. 0,00005 %    | 2-propanol (G.C.).....            | max. 0,2 %      |
| chromium (Cr).....          | max. 0,000002 %   | substances darkened by H2SO4..... | passes test     |
| cobalt (Co).....            | max. 0,000002 %   | residue on evaporation.....       | max. 0,001 %    |
| copper (Cu).....            | max. 0,000002 %   | water (K.F.).....                 | max. 0,2 %      |

### Packaging

#### Packaging Code

1 l  AL01771000  
2,5 l  AL01772500

### Physical data

- Density: 0,81 g/cm<sup>3</sup>
- Solub. in water: (20 °C): 240 - 250 g/l
- Melting point: -114 °C
- Boiling point: 98,5 - 100,5 °C
- Flash point: 24 °C
- Ignition temperature: 390 °C
- Vapour pressure: (20 °C) 16,5 hPa
- Viscosity: (20 °C) 4,21 mPas
- Dielectric const.: (20 °C) 15,8
- Saturation conc.: (20 °C) 52 g/m<sup>3</sup>
- Expl. limit (upper): 9,8 Vol%
- Expl. limit (lower): 1,4 Vol%

### Safety - GHS

Signal Word: Warning

#### Hazard Statements:

H226: Flammable liquid and vapour.  
H319: Causes serious eye irritation.  
H335: May cause respiratory irritation.  
H336: May cause drowsiness or dizziness.



#### Precautionary Statements:

P210: Keep away from heat / sparks / open flames / hot surfaces. - No smoking.  
P241: Use explosion-proof electrical / ventilating / lighting / equipment.  
P303+P361+P353: IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P405: Store locked up.  
P501a: Dispose of contents / container in accordance with local / regional / national / international regulations.

### Toxicological data

- LD 50 (oral, rat): 6480 mg/kg
- MAK: 100 ml/m<sup>3</sup>, 310 mg/m<sup>3</sup>
- WGK: 1
- Poison class CH (Swiss): 4

**Transport/storage**

- ADR: 3 F1 II • UN 1120 • BUTANOLS
- IMDG: 3 II • UN 1120 • BUTANOLS
- IATA/ICAO: 3 II • UN 1120 • BUTANOLS
- PAX: 309
- CAO: 310