

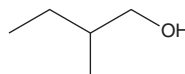
PRODUCT INFORMATION



2-Methyl-1-butanol

Item No. 40330

CAS Registry No.: 137-32-6
Formal Name: 2-methylbutan-1-ol
Synonyms: sec-Butylcarbinol, (±)-2-Methyl-1-butanol, NSC 8431, Primary Active Amyl Alcohol
MF: C₅H₁₂O
FW: 88.1
Purity: ≥98%
Supplied as: A neat oil
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

2-Methyl-1-butanol is supplied as a neat oil. A stock solution may be made by dissolving the 2-methyl-1-butanol in the solvent of choice, which should be purged with an inert gas. 2-Methyl-1-butanol is soluble (≥10 mg/ml) in ethanol and DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 2-methyl-1-butanol can be prepared by directly dissolving the neat oil in aqueous buffers. 2-Methyl-1-butanol is slightly soluble (0.1-1 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

2-Methyl-1-butanol is a volatile organic compound (VOC) and an isomer of pentanol.^{1,2} 2-Methyl-1-butanol is also a synthetic intermediate and an organic solvent that has been used in the synthesis of various compounds.³

References

1. Nguyen, D.K., Nguyen, T.P., Li, Y.R., *et al.* Comparative study of two indoor microbial volatile pollutants, 2-methyl-1-butanol and 3-methyl-1-butanol, on growth and antioxidant system of rice (*Oryza sativa*) seedlings. *Ecotoxicol. Environ. Saf.* **272**:116055, (2024).
2. Cann, A.F. and Liao, J.C. Pentanol isomer synthesis in engineered microorganisms. *Appl. Microbiol. Biotechnol.* **85**(4), 893-899 (2010).
3. Su, H., Chen, H., and Lin, J. Enriching the production of 2-methyl-1-butanol in fermentation process using *Corynebacterium crenatum*. *Curr. Microbiol.* **77**(8), 1699-1706 (2020).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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