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For research use only

Not intended or approved for diagnostic or therapeutic use.

Product Name: Octyl nitrate

Catalog Number: 034688



Sizes Available: 1 g, 5 g, and larger sizes available

Molecular weight: 175.23 g/mol

Molecular Formula: C₈H₁₇NO₃

CAS Number: 629-39-0

Storage: Store at 2-8 C°, under dry conditions.

Synonyms: Octyl nitrate, NITRIC ACID, OCTYL ESTER, 629-39-0, n-Octyl nitrate, 1-Octyl nitrate, nitric acid octyl ester, Nitric acid, octylester, SCHEMBL273330

Uses: Synthesis reagent, Organic Synthesis, oxidant, fuel oxidant

Octyl nitrate, is a synthetic fine chemical useful in the synthesis of pharmaceuticals and fine organic chemicals.

Selected References:

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Carter, William P. L., and Roger. Atkinson. Alkyl Nitrate Formation from the Atmospheric Photooxidation of Alkanes; a Revised Estimation Method. *Journal of Atmospheric Chemistry* 8, no. (1989): 165–73. <u>https://doi.org/10.1007/BF00053721</u>.

Einhorn, C., J. Einhorn, M. J. Dickens, and J. L. Luche. Organic Sonochemistry. Some Illustrative Examples of a New Fundamental Approach. *Tetrahedron Letters* 31, no. (1990): 4129–30. <u>https://doi.org/10.1016/S0040-4039(00)97560-9</u>.

Ferris, Arthur F., Katharine W. McLean, Irma G. Marks, and Wm. D. Emmons. Metathetical Reactions of Silver Salts in Solution. III. The Synthesis of Nitrate Esters. *Journal of the American Chemical Society* 75, no. (1953): 4078. <u>https://doi.org/10.1021/ja01112a505</u>.

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Letcher, T. M. Diesel Blends for Diesel Engines. *South African Journal of Science* 79, no. (1983): 4–7.

Millar, Ross W., and Simon P. Philbin. Nitration by Oxides of Nitrogen. 10. Clean Nitrations: Novel Syntheses of Nitramines and Nitrate Esters by Nitrodesilylation Reactions Using Dinitrogen Pentoxide (N2O5). *Tetrahedron* 53, no. (1997): 4371–86. <u>https://doi.org/10.1016/S0040-</u> 4020(97)00093-8.

Shapiro, Seymour L., Vincent A. Parrino, and Louis. Freedman. Hypoglycemic Agents. III. N1-Alkyl- and Aralkylbiguanides. *Journal of the American Chemical Society* 81, no. (1959): 3728– 36. <u>https://doi.org/10.1021/ja01523a060</u>.

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Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. **Octyl nitrate** is manufactured, shipped according to standard practices, and intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

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