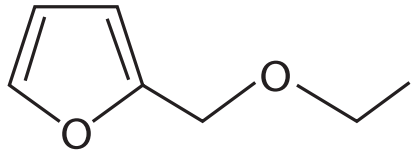
# Ingredient Profile: Furfuryl Ethyl Ether[a]

## Review of a versatile, recently synthesized ingredient



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*Ingredient Profile is an occasional feature from the Chemical Sources Association (CSA;* www.chemicalsources.org*), providing insights into specific flavor compounds. This month's profile features an ingredient made available specifically due to the efforts of the CSA. Sourcing inquiries should be directed to the "Ask the Sourceress" section of the organization's website.*

Synonyms: Ethyl furfuryl ether; 2-(ethoxymethyl)furan

FEMA# 4114

CAS# 6270-56-0

Molecular formula: $C_7H_{10}O_2$

Although it has only recently received GRAS status (GRAS 22), furfuryl ethyl ether has been known in some circles for decades. Research through the US Patent database shows that Firmenich has had a handle on this compound for quite some time. In 1972, a patent titled "Flavor Modified Soluble Coffee" (3,702,253) was granted.[1] The Firmenich claims state that although not directly related to coffee flavors, the use of furfuryl ethyl ether either singly or in combination with other compounds may contribute desirable flavor notes.

DeRovira notes that the furyl compounds are natural by-products of fermentation.[2]

As a result, one would suppose that this compound should be found in rum, tequila, brandy, barrel aged wine and rice wine—and it is. Philip Spillman has attributed the presence of furfuryl ethyl ether in wines to the oak wood barrel.[3] It has been flagged as an off note in beer, contributing to the stale note with other nasty actors.

The material also is found in model systems as a by-product of the Maillard reaction, and can be found in cane molasses and white bread. If one likes cooked pork, then one may enjoy the effect that furfuryl ethyl ether has on that matrix.

## Potential Uses

I believe that furfuryl ethyl ether can find a happy home in many different flavor applications. I would use this in all the sweet brown flavors like brown sugar, butterscotch, caramel, dulce de leche; cake and pastry; vanilla; perhaps some dairy like cream; and cooked milk. Certainly I would examine this for rum, whiskey, brandy, wine, tequila and perhaps beer for authenticity. I could see this also in smoked flavors for oaky/woody notes and cooked fruits. Its beautiful, light, sweet brown character would work well in many applications limited only by the skill and imagination of the flavorist.

[a]The compound under review here has been synthesized by DeLong Chemicals; *www.delongchemicals.com.*

### References


1. M Winter, F Gautschi, I Flament and M Stoll, *Flavor Modified Soluble Coffee*. US Patent 3,702,253 (1972).
2. D DeRovira, *Dictionary of Flavors*. 2nd Edn, p 316, Wiley-Blackwell, Ames (2009).
3. PJ Spillman, AP Pollnitz, D Liacopoulos, KH Pardon and MA Sefton, Formation and Degradation of Furfuryl Alcohol, 5-Methylfurfuryl Alcohol, Vanillyl Alcohol, and Their Ethyl Ethers in Barrel-Aged Wines. *J Agric Food Chem*, **46**(2), 657–663 (1998).