

5-Hydroxymethylfurfural Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: 5-Hydroxymethylfurfural

Catalog No.: CFN97149

Cas No.: 67-47-0

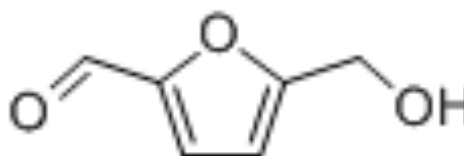
Purity: >=99%

M.F: C₆H₆O₃

M.W: 126.11

Physical Description: Powder

Synonyms: 5-(Hydroxymethyl)-2-furaldehyde; 5-(hydroxymethyl)furan-2-carbaldehyde;
5-Hydroxymethyl-2-furaldehyde.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Synthetic precursor compounds;
5. Intermediates & Fine Chemicals;
6. Others.

[Source]

Ther hizome of *Typhonium giganteum* Engl.

[Biological Activity or Inhibitors]

The aerobic oxidation of 5-hydroxymethylfurfural, a versatile biomass-derived chemical, is examined in water with a titania-supported gold-nanoparticle catalyst at ambient temperature (30 °C).[¹]

5-Hydroxymethylfurfural is one component of food, has antioxidative properties and is therefore used as an acting agent in a novel anticancer infusion solution, named Karal®, and an oral supplementation.[²]

5-Hydroxymethylfurfural (HMF) and furfural (F) could be formed in soft beverages of rich sugar during process, and often used as an index of heat treatment, HMF is also considered as potentially carcinogenic to humans. [³]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[4]

Mobile phase:Methanol -H₂O=7:93 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 284nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

[1]YuryY. Gorbanev, SørenK. Klitgaard, John M. Woodley Prof., *et al. Chemsuschem*, 2009, 2(7):672–5.

[2] Magdalena H, Marketa B, Stefanie H, *et al. J. Sep. Sci.*, 2012, 35(19):2567-74.

[3] Donnarumma F, Wintersteiger R, Schober M, *et al. Anal. Sci.*, 2013, 29(12):1177-82.

[4] Chen L, Peng N, Huang X S. *Food Science* 2009, 30(24):369-71.

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