

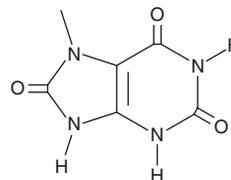
# PRODUCT INFORMATION



## 7-Methyluric Acid

Item No. 21067

**CAS Registry No.:** 612-37-3  
**Formal Name:** 7,9-dihydro-7-methyl-1H-purine-2,6,8(3H)-trione  
**Synonym:** N<sup>7</sup>-Methyluric Acid  
**MF:** C<sub>6</sub>H<sub>6</sub>N<sub>4</sub>O<sub>3</sub>  
**FW:** 182.1  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 232, 287 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

7-Methyluric acid is supplied as a crystalline solid. A stock solution may be made by dissolving the 7-methyluric acid in the solvent of choice. 7-Methyluric acid is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of 7-methyluric acid in these solvents is approximately 20 and 5 mg/ml, respectively.

7-Methyluric acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 7-methyluric acid should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 7-Methyluric acid has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

7-Methyluric acid is a methylated purine and uric acid (Item No. 16219) derivative. It is a metabolite of caffeine (Item No. 14118) that can be detected in urine.<sup>1,2</sup> 7-Methyluric acid can also be detected in uric acid stones.<sup>3</sup>

### References

1. Blanchard, J., Sawers, S.J.A., Jonkman, J.H.G., *et al.* Comparison of the urinary metabolite profile of caffeine in young and elderly males. *Br. J. Pharmacol.* **19(2)**, 225-232 (1985).
2. Ryback, M.E., Sternberg, M.R., Pao, C.I., *et al.* Urine excretion of caffeine and select caffeine metabolites is common in the U.S. population and associated with caffeine intake. *J. Nutr.* **145(4)**, 766-774 (2015).
3. Safranow, K. and Machoy, Z. Methylated purines in urinary stones. *Clin. Chem.* **51(8)**, 1493-1498 (2005).

#### 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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