

Catalog Number: 103290

Xanthine

Structure:

**Molecular Formula:** C₅H₄N₄O₂**Molecular Weight:** 152.1**CAS # :** 69-89-6**Synonyms:** 2,6-Dihydroxypurine; 3,7-Dihydro-1H-purine-2,6-dione; 2,6(1H,3H)-Purinedione; 2,6-Dioxopurine**Solubility:** Soluble in water (1 g/14.5 L; 1 g/1.4 L boiling water [Note: product will decompose at higher temperatures¹]), mineral acids, ammonium hydroxide and sodium hydroxide (60 mg/ml - clear, slightly yellow solution); slightly soluble in alcohol.¹**Description:** A metabolite of adenosine. Substrate for xanthine oxidase and xanthine dehydrogenase. A xanthine and xanthine oxidase system can be used to produce superoxide radicals.

References:

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formation of two xanthine oxidase/xanthine dehydrogenase inhibitors: TEI-6720 and allopurinol in rats." *Res. Commun. Mol. Pathol. Pharmacol.*, v. **104:3**, 307-319 (1999).