

## **Draft Guidance on Mercaptopurine**

This draft guidance, when finalized, will represent the current thinking of the Food and Drug Administration (FDA, or the Agency) on this topic. It does not establish any rights for any person and is not binding on FDA or the public. You can use an alternative approach if it satisfies the requirements of the applicable statutes and regulations. To discuss an alternative approach, contact the Office of Generic Drugs.

**Active Ingredient:** Mercaptopurine

**Dosage Form; Route:** Suspension; oral

**Recommended Studies:** One study

Type of study: Fasting

Design: Single-dose, two-treatment, two-period crossover, in vivo study in patients

Strength: 20 mg/mL

Subjects: The study should be conducted in adult patients receiving mercaptopurine in a stable regimen. Mercaptopurine therapy often includes daily oral mercaptopurine and weekly oral methotrexate. Since the pharmacological effect of methotrexate may potentially affect the pharmacokinetics of mercaptopurine differently on different days following the methotrexate administration, the study periods of the bioequivalence study of mercaptopurine suspension should be conducted at weekly intervals with the study sampling period standardized with respect to the dosing of methotrexate, using the same time interval between methotrexate and study drug administration for each period.

Additional Comments: Submission of an Investigational New Drug Application is required prior to the conduct of a bioequivalence study for a cytotoxic drug product such as mercaptopurine (See 21 C.F.R § 320.31).

**Analytes to measure (in appropriate biological fluid):** Mercaptopurine in plasma

**Bioequivalence based on (90% CI):** Mercaptopurine

**Dissolution test method and sampling times:** The dissolution information for this drug product can be found on the FDA-Recommended Dissolution Methods website available to the public at the following location: <http://www.accessdata.fda.gov/scripts/cder/dissolution/>. Conduct comparative dissolution testing on 12 dosage units each of the test and reference products. Specifications will be determined upon review of the abbreviated new drug application.