Cycloheximide
from a microbial source

Product Number C7698 and C1988
Storage Temperature 2-8 °C

CAS RN 66-81-9
Synonyms: Actidione, Naramycin A,
(3-[2-(3,5-Dimethyl-2-oxocyclohexyl)-
2-hydroxyethyl]glutarimide)

Cycloheximide is also used in plant research. It
stimulates ethylene production in fruit and leaves.  

**Preparation Instructions**
Cycloheximide has been reported to be soluble up to
2% (w/v) in water (20 mg/ml). The powder will
dissolve slowly in water and this process may be aided
by mixing or sonication. More dilute solutions (5 mg/ml)
may be prepared without sonication. Aqueous solution
stability is pH dependent. Solutions are stable for
several weeks in the pH range of 3 to 5, which is the
range optimal for stability. For longer term solution
storage, refrigeration is suggested. Solutions
refrigerated over 18 months, retained 75% of the
original activity. Solutions prepared in distilled water
may be sterile filtered or autoclaved without serious
loss of activity. Autoclaving of medium containing
cycloheximide is not recommended. The sterile
cycloheximide solution should be added to sterile broth
or cooled, sterile, melted agar.

At the cellular level, cycloheximide blocks the
translation of messenger RNA on cytosolic, 80S
ribosomes, but does not inhibit organelle protein
synthesis. This selective inhibition
makes it active against many yeasts and fungi, but
tolerated by most bacteria. Classically, it has been
used in bacteriological media to isolate or count
bacteria in the presence of yeast and molds
(100–1000 µg/ml).

Cycloheximide is also soluble in most organic solvents,
including ethanol, with the exception of saturated
hydrocarbons.

**Storage/Stability**
Store desiccated at 2-8 °C. The product as supplied
should be stable for 5 years if properly stored.

**References**
   (1971).