MOLTOX®
Molecular Toxicology, Inc.

157 Industrial Park Drive, Boone, NC 28607

828.264.9099 Office 828.264.0103 FAX 800.536.7232 Toll Free

MOLTOX.com

Product Information

S9 FAQs

What is the difference between S9 and lyophilized S9?

Lyophilized S9 is S9 that has been freeze-dried.
Lyophilized S9 can be stored in a standard freezer (approx. -20°C) unlike standard S9 which requires ultralow freezer storage (approx. –80°C).
Once reconstituted with ice-cold, sterile water, lyophilized S9 is equivalent to standard S9.

What is the difference between S9 and S9 Mix?

S9 is the supernatant from an organ homogenate, usually liver, that has been centrifuged at 9000g.
Microsomes in the supernatant contain cytochrome P450 metabolic enzymes.
S9 is often thus used to assess the mutagenic potential of chemical compounds.

S9 requires an NADPH-supported oxidation system to function in a test method.
Such system includes NADP, glucose-6-phosphate, $MgCl_2$, and KCl, in a phosphate buffer. These are often called "co-factors".
Once S9 is mixed with these co-factors it becomes "S9 Mix".

What is the difference between S9 and Mutazyme™?

S9 is the supernatant from an organ homogenate, usually liver, that has been centrifuged at 9000g.
Microsomes in the supernatant contain cytochrome P450 metabolic enzymes.
S9 is often thus used to assess the mutagenic potential of chemical compounds.

Mutazyme™ is lyophilized (i.e., freeze-dried) S9 Mix.
Depending on part number, Mutazyme™ is available in S9 Mix concentrations of 5%, 10%, and 30%.
(See also "What is the difference between S9 and S9 Mix?")

What is the standard concentration of S9 Mix to use in my Ames Assay?

The most commonly used concentration is 10% followed by 5%.