

>Acrylamide, 40% solution

Acrylamide (prop-2-enamide), 40% (w/v) solution

<i>cat. no.</i>	<i>amount</i>	<i>note</i>
STS-AC 500	500ml	Filtered; Electrophoresis-grade.

Acrylamide is used in gel-electrophoresis in combination with Bisacrylamide and SDS (SDS-PAGE) to separate charged molecules. Acrylamide alone forms linear polymers, whereas Bisacrylamide introduces crosslinks between polyacrylamide chains. The 'pore size' is determined by the ratio of Acrylamide to Bisacrylamide (usually 30 : 0.8 for protein separation) and by the concentration of Acrylamide. A high ratio of Bisacrylamide to Acrylamide and a high Acrylamide concentration cause low electrophoretic mobility. Polymerization of Acrylamide and Bisacrylamide monomers is induced by ammonium persulfate (APS), which spontaneously decomposes to form free radicals. TEMED, a free radical stabilizer, is generally included to promote polymerization.

Formulation

C_3H_5NO

Molecular weight

71.08

Solubility

Soluble in water, ethanol, ether and chloroform.

Storage

Store at 4°C. Keep tightly sealed. If high resolution is required (such as sequencing), fresh solution (less than 2 months) should be used.