

# Fatty Acid Esters

(Styrene Allyl Alcohol)

Preparing Aqueous Solutions

## Esterification

SAA Step 1 > SAA Acid Ester Step 2 > Maleic Acid Adduct Step 3 > Aqueous Emulsion

Step 1	AA-100™	285 parts
	Soya Acid	304 parts
	Xylene	40 parts

These materials are stirred for 7 hours at 250°C under nitrogen with continuous removal of water and recycling of xylene. About 19 parts of water are obtained. The acid number of the SAA Fatty Ester produced in this step is 16-17.

Step 2	SAA Fatty Ester	502 parts
	Maleic Anhydride	41 parts
	10% Iodine in Xylene	0.5 parts
	Glycol Ether PNP	120 parts

The adduct solution from step 2 is treated with aqueous ammonia to a pH between 8 and 9. It is then diluted with the mixture of PNP1 and water to give a clear emulsion.

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