

Production of Acetic acid

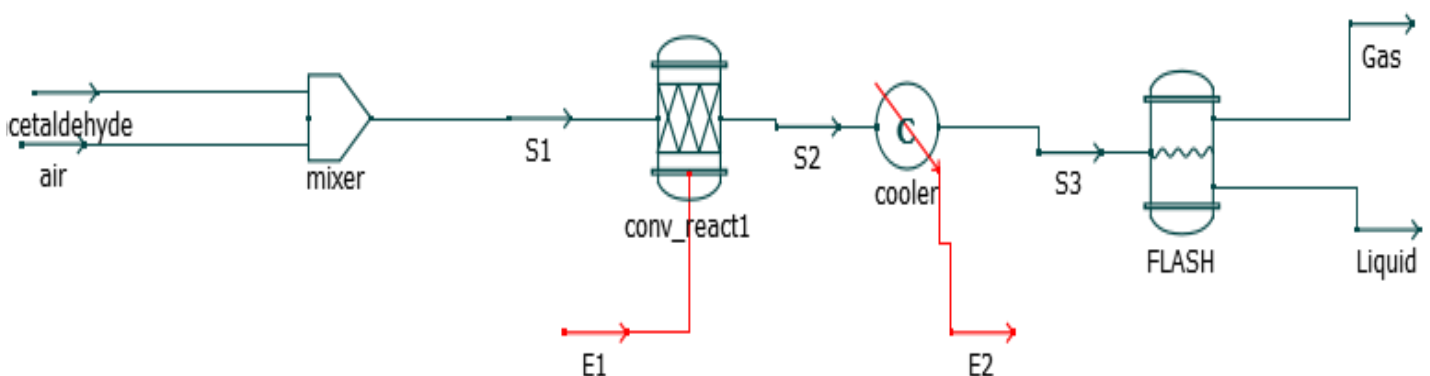
Malapati Sree Harsha

Sri Venkateswara University College Of Engineering

Background & Description:

Acetic acid is the second, simplest carboxylic acid (after formic acid). It consists of a methyl group attached to a carboxyl group. It is an important chemical reagent and industrial chemical, used primarily in the production of cellulose acetate for photographic film, polyvinyl acetate for wood glue, and synthetic fibres and fabrics. In households diluted acetic acid is often used in de-scaling agents.

Flowsheet:



Results:

DWSIM-Molar Flow Rate(mol/s)

	S1	Gas	Liquid
Oxygen	1.5037	0.60147074	0
Nitrogen	4.5111	4.511	0.0001
Acetaldehyde	1.8586	0.0379989	0.016160744
Acetic Acid	0	0.057546	1.7468822

OpenModalica-Molar Flow Rate(mol/s)

	S1	Gas	Liquid
Oxygen	1.5037	0.601395	0
Nitrogen	4.5111	4.511	0.0001
Acetaldehyde	1.8586	0.0379977	0.0161623
Acetic acid	0	0.601395	1.7469