

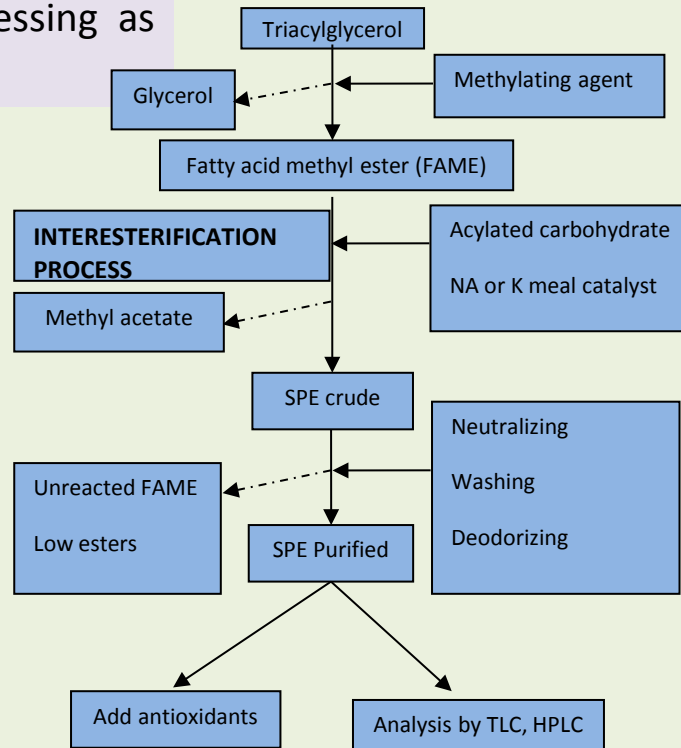
SUCROSE FATTY ACID POLYESTERS (SPEs)

Definition

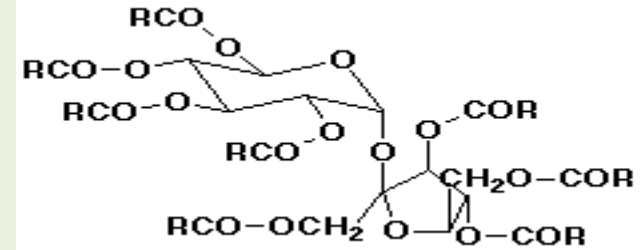
SPEs are non-digestible fat-like molecules that significantly reduce the calorie contribution of foods as they cannot be hydrolyzed and absorbed in the lumen as normal fats. Since they retain the functional and physical properties of fats they are suitable for food processing as fat replacers.



Synthesis



Structure



The sucrose fatty acid ester structure comprises a non-reducing sugar molecule esterified with free fatty acids at the hydroxyl groups available. SPEs become undigestible when the number of fatty acids esterified is > 4.

Applications

- Baked goods and baking mixes, dairy product analogs, frozen deserts, whipping milk products
- Biscuit mixes
- Ripening and spoilage retardant of fresh fruits

Lipase Obstruction in Olestra

