Co-precipitate

Co-precipitates consist of casein and whey protein complexes. Heat is used to cause the whey proteins and casein to interact. Acid or calcium salts then are used to precipitate the protein complexes.

Co-precipitates are classified according to their calcium content. The pH of the milk when the proteins coagulate determines the calcium content of the co-precipitate.

Co-precipitates are insoluble unless modified by alkali in a process similar to the conversion of casein into caseinates. Low and medium calcium co-precipitates can be converted into very soluble products. High calcium co-precipitates may not be converted into a completely soluble product. Functional properties of the soluble co-precipitate will depend on the calcium content.

Co-precipitates typically are not produced in the United States. Products similar to soluble co-precipitates produced outside of the United States include total milk protein (TMP™), soluble lacto-protein and milk proteinate.

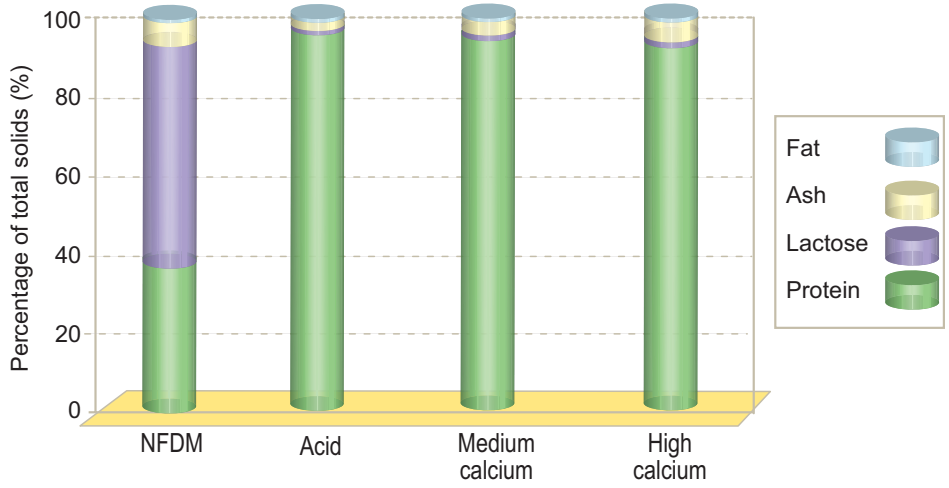
Types

- Acid
- Medium calcium
- High calcium

Regulations

- None, product not defined

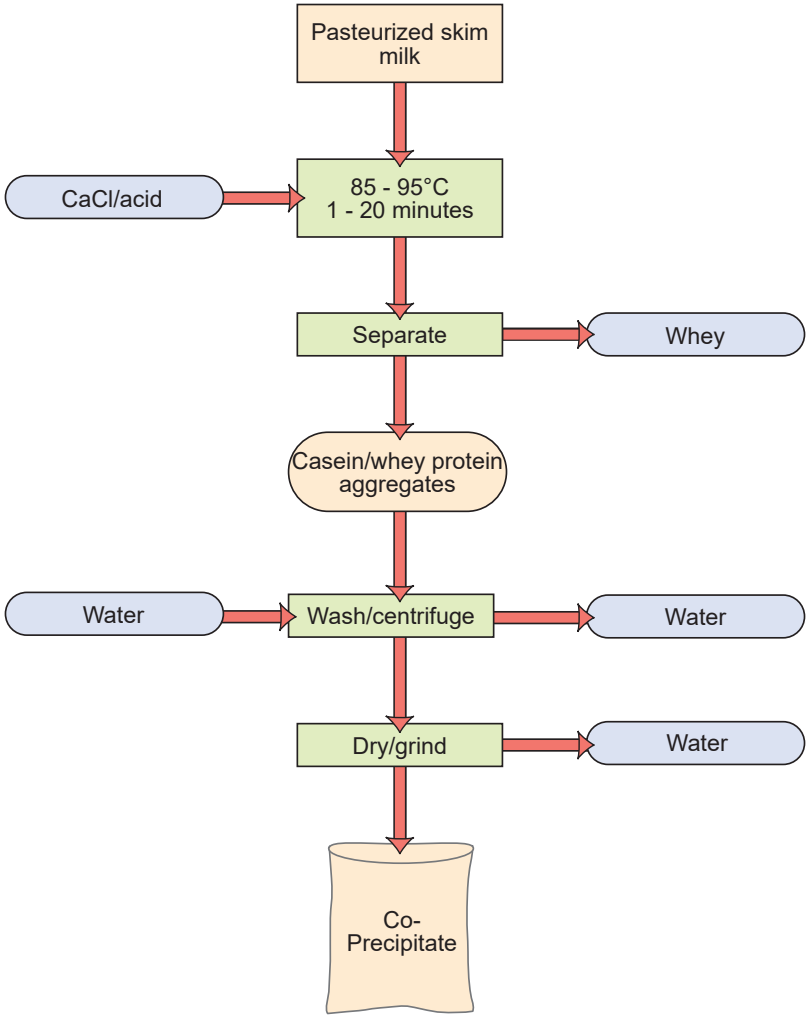
Co-precipitate composition



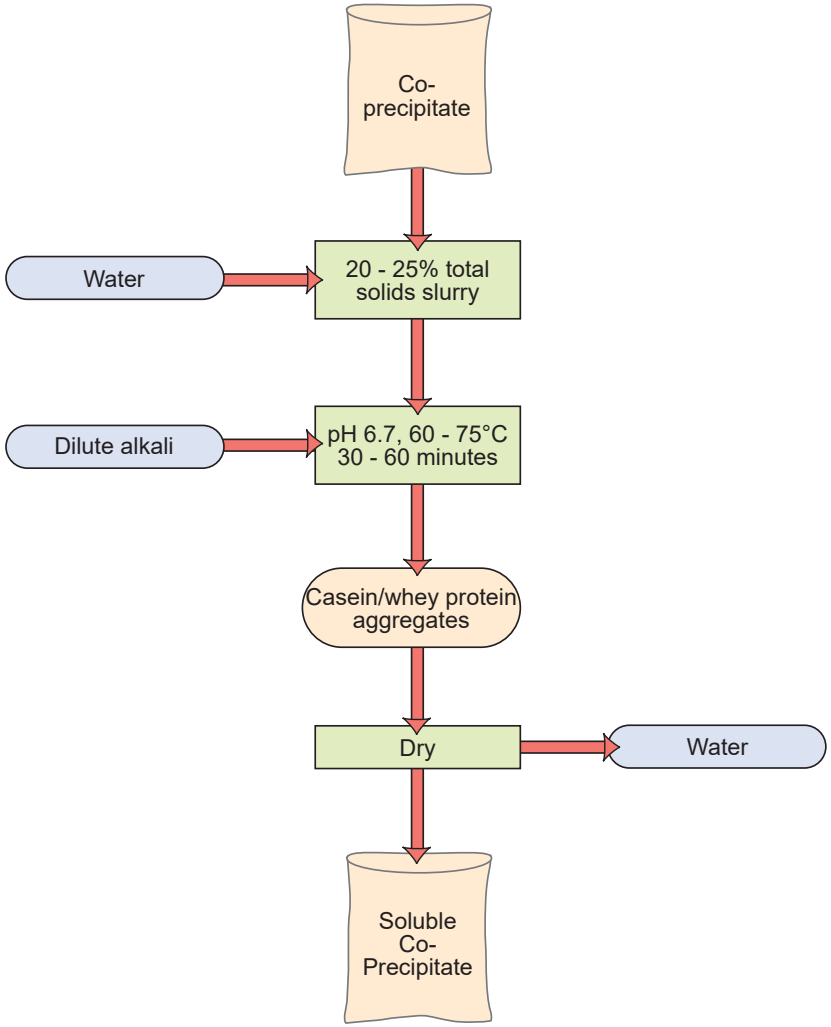
General composition of co-precipitate

Component	Co-precipitate type		
	Acid	Medium calcium	High calcium
	---------- % ----------		
Protein	86.7	85.6	81.7
Lactose	0.5	0.5	0.5
Ash	2.4	3.7	7.7
Fat	0.9	0.7	0.6
Moisture	9.5	9.5	9.5
Calcium	0.54	1.13	2.81
pH	5.4 - 5.8	5.6 - 6.2	6.5 - 7.2

Manufacture of Co-precipitate



Manufacture of Soluble Co-precipitate



Typical composition and characteristics

Not available