

## CHEMISTRY OF CHHAKA AND SHRIKHAND



### Soma Maji



## Chakka

It is an intermediate product in the preparation of shrikhand. It is prepared by draining the whey from lactic acid fermentation curd from milk. It is a white to pale yellow semi-solid product of good texture and uniform consistency. It shall conform to the following requirement

Requirements	Chakka	Skimmed Milk Chakka	Full cream Chakka
Total solids, percent by weight	Min 30	Min. 20	Min. 28
Milk fat (on dry basis) percent by weight	Min. 33	Min. 5	Min. 38
Milk protein (on dry basis) percent by weight	Min 30.	Min 60	Min. 30
Titratable acidity (as lactic acid) percent by weight	Max. 2.5	Max 2.5	Max. 2.5
Total Ash (on dry basis) percent by weight	Max. 3.5	Max. 5.0	Max 3.5

Chakka when sold without any indication shall conform to the standard of Chakka.

## Shrikhand

Shrikhand is a popular fermented and sweetened milk product of the Western part of India and consumed as a dessert or snack food. It is made from concentrated dahi with a sweet and sour taste. The consistency is influenced to great extent by the moisture, fat and sugar levels.





Parameter	Shrikhand	Full Cream Shrikhand	Fruit Shrikhand
Total solids, minimum, %, (m/m)	58.0	58.0	58.0
Milk fat, minimum, %, (m/m), on dry basis	8.5	10.0	7.0
Milk protein*, minimum, %, m/m, (on dry basis)	9.0	7.0	6.0
Titratable acidity, maximum, % (as lactic acid)	1.4	1.4	1.4
Sugar (sucrose), maximum, %, m/m (on dry basis)	72.5	72.5	72.5
Total Ash, maximum, %, m/m (on dry basis)	0.9	0.9	0.9

#### According FSSA (2011), Shrikhand conform to the following specifications.

\* Protein content is 6.38 multiplied by the total nitrogen determined

In traditional method, buffalo milk or mixed cow milk is boiled and after cooling to room temperature (30 -35°C), it is incubated with lactic culture (dahi) and incubated for 6 - 8 hours. When the curd is firmly set (acidity 1.0%), it is placed in a muslin cloth and hang on a bag for drainage of whey for 6 - 8 hours. The curd is intermittently squeezed to facilitate whey drainage. The solid mass thus obtained (called chakka) is mixed with sugar and well kneaded and rubbed through muslin cloth to give smooth sweet and sour product. Permitted colours, flavour and fruits, nut, spices are also added to provide variety.

## Shrikhand Wadi

Shrikhand Wadi is a sweet made out of Shrikhand is a sweet made out of Shrikhand in western regions of India. Shrikhand is heat desiccated to a plastic mass in shallow vessel. Shrikhand is deep fried in ghee in an open pan with constant stirring. When the mass begins to get hard, a small quantity of it is taken and tested for stickiness. When it does not stick it is ready for addition of spices like cardamom, saffron etc. After addition of spices, the product is rolled in the form of thick chapati and then cut into desired shape and size.

#### **Composition of Shrikhand wadi:**

Moisture	Fat	Protein	Lactose	Ash	Sugar	Lactic acid
6.5	7.4	7.7	15.9	0.8	62.9	1.0

# Thank you