

Fat-Free Sour Cream with WPI



INGREDIENTS

	Usage Levels (%)
Skimmed milk	64.25
Whole milk	30.00
Whey protein isolate (WPI)	3.44
Starch, waxy maize modified cook up	0.76
Dent modified instant starch	0.75
Sodium phosphate	0.27
Titanium dioxide	0.27
Culture	0.20
Sodium citrate	0.06
Total	100.00

NUTRITIONAL CONTENT

Per 100g	
Calories	60kcal
Total Fat	1g
Saturated Fat	0.5g
Trans Fat	0g
Cholesterol	5mg
Total Carbohydrates	6g
Dietary Fiber	0g
Sugars	5g
Protein	7g
Calcium	96mg
Magnesium	0mg
Phosphorus	82mg
Potassium	0mg
Sodium	160mg
Iron	0mg
Vitamin A	166IU
Vitamin C	0mg

PREPARATION

1. **Mix all dry ingredients together in a bowl.**
2. **Place skimmed and whole milk together in a pan, and disperse dry ingredients in milk, using a mixer.**
3. **Heat to 85°C (185°F), and hold for 30 minutes to pasteurize.**
4. **Homogenize at 70°C (158°F), using two stages: 13.8 MPa (2000 psi) in the first stage and 3.5 MPa (508 psi) in the second stage.**
5. **Cool to 21°C (70°F) and inoculate with culture.**
6. **Incubate at 24°C (75°F) approximately 18 hours, or until pH of 4.5 to 4.6 is reached.**
7. **Cool to 4°C (40°F) and store for at least 48 hours to allow starch to set up and full viscosity to be developed.**

Rely on the dynamic lineup of U.S. dairy to meet consumer demands for global product development. The U.S. Dairy Export Council (USDEC) offers resources on ThinkUSAdairy.org including a dairy ingredient supplier search, consumer, nutrition and product research, technical insights and prototype assistance to help develop and launch your next successful product.  [@ThinkUSAdairy](https://twitter.com/ThinkUSAdairy)

This formula serves as a reference. Product developers are encouraged to modify the formula to meet manufacturing and finished product specification needs. Developed at the Wisconsin Center for Dairy Research, University of Wisconsin-Madison. ©2014 U.S. Dairy Export Council.