

Hard-Packed Ice Cream



INGREDIENTS

	Usage Levels (%)
Water	45.85
Cream, 40% fat	25.00
Sucrose, granulated	16.00
Skimmed milk powder	10.32
Sweet whey powder	2.58
Stabilizers and emulsifiers	0.25
Total	100.00

NUTRITIONAL CONTENT

Per 100g	
Calories	200kcal
Total Fat	9g
Saturated Fat	6g
Trans Fat	0g
Cholesterol	35mg
Total Carbohydrates	24g
Dietary Fiber	0g
Sugars	23g
Protein	5g
Calcium	187mg
Magnesium	19mg
Phosphorus	130mg
Potassium	200mg
Sodium	100mg
Iron	0mg
Vitamin A	368IU
Vitamin C	2mg

PREPARATION

- Blend all ingredients into a uniform suspension in a batch tank.**
- Test the mix and re-standardize if necessary.**
- Pasteurize the mixture at 82°C (180°F) for 23 seconds.**
- Homogenize the mixture. A two-stage homogenization is recommended with 14.1 MPa (2045 psi) in the first stage and 3.5 MPa (508 psi) in the second stage.**
- Cool rapidly to 0-4°C (32-39°F).**
- Age the mix for at least 4 hours.**
- Optional: completely dispersible flavorings can be added to the mix prior to freezing.**
- Freeze in two stages. Freeze to -1 to 0°C (30-32°F) in the first stage in an ice cream freezer at a rapid rate to a discharge temperature of -7 to -6°C (19-21°F).**
- Optional: add particulate materials or syrups through a fruit feeder.**
- In the second stage, harden the ice cream by reducing the temperature of the product to at least -18°C (0°F) in the center of the packages as quickly as possible.**

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. ©2014 U.S. Dairy Export Council.