

INGREDIENTS

	Grams	Bakers (%)	Usage Levels (%)
Flour, strong	227.0	50	25.540
Flour, pastry	227.0	50	25.540
Water (1)	127.0	28	14.290
Water (2)	118.0	26	13.276
Lactose	68.0	15	7.650
Cheese, parmesan	45.0	10	5.063
Butter (1)	27.2	6	3.060
Butter (2)	18.0	4	2.025
Salt	13.6	3	1.530
Dry malt	4.5	1	0.506
Yeast, gold	4.5	1	0.506
Red pepper flakes	4.5	1	0.506
Butter, softened*	as needed	as needed	as needed
Cheese, parmesan*	68.0	14.97	_
Total			100.00

'Additional ingredients not included in total

NUTRITIONAL CONTENT

Per 100g

Calories	430kcal
Total Fat	11g
Saturated Fat	7g
Trans Fat	Og
Cholesterol	30mg
Total Carbohydrates	67g
Dietary Fiber	2g
Sugars	11g
Protein	14g
Calcium	1mg
Magnesium	17mg
Phosphorus	208mg
Potassium	125mg
Sodium	1280mg
Iron	1mg
Vitamin A	527IU
Vitamin C	1mg

PREPARATION

- 1. In a bowl of a mixer fitted with a dough hook, mix strong flour, dry malt, parmesan, yeast, butter (1) and water (2) on low speed until incorporated. At that time, mix for an additional 4 minutes.
- 2. Remove from the bowl and let rest in a covered container for 14-18 hours at 27°C (80°F).
- 3. Add the sponge and pastry flour, red pepper flakes, lactose, baking soda, salt, butter (2) and water (1) into the bowl of a mixer fitted with a dough hook. Mix for 5 minutes. Check for "nearly" good gluten (not complete gluten structure).
- 4. Pull from bowl. Let rest, covered, for 2 hours.



PREPARATION

(continues)

- 5. Using a sheeter, sheet out dough into a 5 mm (0.2") rectangle.
- 6. Very lightly butter surface of 2/3 of the dough then spread the additional parmesan on the dough.
- 7. Make a three-fold (as in making puff dough). Repeat 2 more times.
- 8. Roll out to a 2 mm (0.08") thickness. With a scalloped edge cutter, cut dough into desired shapes
- 9. Bake in 135°C (275°F) oven until just a little color starts to appear on the edges.
- 10. Turn crackers over if necessary to make sure that they are dried completely in the core.
- 11. Cool to room temperature before packaging.

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)

This formula serves as a reference. Product developers are encouraged to modify the formula to meet manufacturing and finished product specification needs. Developed by the International School of Baking. ©2014 U.S. Dairy Export Council.

