

Savory, Soft Protein Pretzel

Better snacking delivered. This delicious snack provides a good source of protein for an authentic soft pretzel flavor experience with the sodium-lowering benefits of dairy product solids. Made with whey protein concentrate 80, milk permeate and unsalted butter, this dairy-based formulation reduces sodium by 73% when compared with a traditional pretzel.* It's a perfect snacking item to satisfy a salty craving while helping to keep sodium in check.



LOW SODIUM

MARKET INSIGHTS

- Nearly two-thirds (64%) of U.S. consumers buy grocery products that are explicitly marketed or labeled as targeting specific health concerns.
- About half of all U.S. shoppers who have purchased targeted foods and beverages are willing to pay more for "better-for-you" grocery products.
- Sodium-reduction initiatives are global, with at least 32 countries having salt-/sodium-reduction initiatives according to a June 2011 review in the Journal of Hypertension (19 in Europe, 6 in the Americas and 7 in the Western Pacific Region).

INGREDIENTS

	Control (%)	Reduced Sodium (%)
Bread flour	54.80	55.68
Water	28.0	29.0
Whey protein concentrate 80	9.00	9.10
Granulated sugar	4.00	3.64
Milk permeate (dairy product solids)	-	0.18
Salt	1.80	-
Butter, unsalted	1.10	1.10
Instant yeast	0.75	0.75
Sea salt topping	0.55	0.55
Total	100.00	100.00

INGREDIENTS: Enriched wheat flour (wheat flour, malted barley flour, niacin, iron, thiamin mononitrate, riboflavin, folic acid), water, whey protein concentrate, sugar, dairy product solids, unsalted butter, yeast, salt.

Contains: milk

BENEFITS OF USING U.S. DAIRY

Whey Protein Concentrate 80

- Provides textural characteristics and prevents moisture loss
- Contains branched-chain amino acids to support nutrition
- Boosts protein content in food and is easily digested and absorbed by the body

Milk Permeate

- Provides salty characteristics, so that added salt may be reduced
- Simply labeled as dairy product solids
- Contains minerals such as calcium, phosphorus, magnesium, sodium and potassium
- Improves surface browning
- Economical ingredient option

Butter

- Delivers a delicious, natural flavor

NUTRITIONAL CONTENT

Control

Nutrition Facts

Serving Size 2 pretzels (55g)

Amount Per Serving

Calories 150 Calories from Fat 10

% Daily Value*

Total Fat 1.5g 2%

Saturated Fat 0.5g 3%

Trans Fat 0g

Cholesterol 15mg 5%

Sodium 560mg 23%

Total Carbohydrate 26g 9%

Dietary Fiber 1g 4%

Sugars 3g

Protein 8g 16%

Vitamin A 0% • Vitamin C 0%

Calcium 2% • Iron 15%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g
Protein		50g	65g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

Reduced Sodium

Nutrition Facts

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Amount Per Serving

Calories 150 Calories from Fat 10

% Daily Value*

Total Fat 1.5g 2%

Saturated Fat 0.5g 3%

Trans Fat 0g

Cholesterol 15mg 5%

Sodium 150mg 6%

Total Carbohydrate 26g 9%

Dietary Fiber 1g 4%

Sugars 2g

Protein 9g 18%

Vitamin A 0% • Vitamin C 0%

Calcium 2% • Iron 15%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
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Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g
Protein		50g	65g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

*Contains 73% less sodium than a similar pretzel formulation. Sodium has been reduced from 560mg per serving to 150mg per serving.

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PREPARATION

1. **Preheat convection oven to 300°F (149°C).**
2. **Prepare a 3% lye solution in water.**
3. **Blend dry ingredients.**
4. **Add warm (100°F/ 38°C) water and melted butter. Mix until dough forms.**
5. **Knead dough for 10 minutes until smooth.**
6. **Allow dough to rise 1 hour in a warm place, until it has doubled in size.**
7. **Punch down dough and then form desired pretzel shapes.**
8. **Allow formed shapes to rise another 30 minutes in a warm place.**
9. **Dip into a boiling 3% lye solution for 10 seconds; drain off excess.**
10. **Sprinkle with sea salt.**
11. **Bake for 10 minutes until golden brown.**
12. **Optional — Cool and freeze.**
13. **Optional — Reheat in toaster oven for 5 minutes at 425°F (218°C).**

Rely on the dynamic lineup of U.S. dairy to meet consumer demands in 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 specifications needs. Developed at the Dairy Products Technology Center, California Polytechnic State University. ©2014 U.S. Dairy Export Council.