Tollhouse Streusel Muffins



INGREDIENTS

	Cor	ntrol	W	PC 80	Whey Permeate		
	Grams	Usage Level (%)	Grams	Usage Level (%)	Grams	Usage Level (%)	
Muffins		100.00		100.00		100.00	
Flour, all-purpose, medium	170	22.97	170	22.91	170	23.07	
Chocolate chips	170	22.97	170	22.91	170	23.07	
Milk	113	15.27	113	15.23	-	-	
Butter or margarine, melted	110	14.86	110	14.82	110	14.93	
Water (1)	-	-	-	-	105	14.25	
Sugar	55	7.43	55	7.41	55	7.46	
Sugar, brown (or 45 g sugar + 10 g molasses)	55	7.43	55	7.41	55	7.46	
Egg	55	7.43	-	-	55	7.46	
Water (2)	-	-	50	6.74	-	-	
Baking powder	10	1.35	10	1.35	10	1.36	
Whey protein concentrate, 80% protein (WPC 80)*	-	-	7	0.94	-	-	
Whey permeate**	-	-	-	-	7	0.95	
Salt	2	0.27	2	0.27	-	-	
Streusel		100.00		100.00		100.00	
Sugar	75	33.34	75	33.34	75	33.34	
Butter	75	33.33	75	33.33	75	33.33	
Flour, ice cold	75	33.33	75	33.33	75	33.33	

^{*}Hydrate WPC 80 by mixing the powder with 1/4 of water (2) and letting hydrate 15 minutes; then add rest of water.

PREPARATION

- 1. Soften butter slightly in microwave (no need with shortening). Cream with sugars (whey permeate) and eggs (WPC 80). Add soda and salt.
- 2. Mix in flour in two batches, scraping sides of bowl thoroughly.
- 3. Add chocolate chips and mix very briefly.
- 4. Bake at 177°C (350°F) until just firm in the center.



 $^{^{\}star\star}$ Hydrate whey permeate with water (1). Since permeate is salty, remove salt from the formula.

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NUTRITIONAL CONTENT

Per 100g	Control	WPC 80	Whey Permeate
Calories	400kcal	400kcal	400kcal
Total Fat	22g	21g	22g
Saturated Fat	13g	13g	13g
Trans Fat	Og	Og	Og
Cholesterol	65mg	45mg	65mg
Total Carbohydrates	50g	50g	51g
Dietary Fiber	2g	2g	2g
Sugars	29g	29g	29g
Protein	5g	4g	4g
Calcium	95mg	98mg	83mg
Magnesium	28mg	29mg	27mg
Phosphorus	89mg	90mg	78mg
Potassium	120mg	125mg	105mg
Sodium	320mg	310mg	230mg
Iron	2mg	2mg	2mg
Vitamin A	525IU	491IU	515IU
Vitamin C	0mg	0mg	0mg

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.

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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.

