



## SUGAR AND CALORIE REDUCTION IN CHOCOLATE MILK

By Larry Ellis, Principal Scientist



There's a reason why chocolate milk is a nostalgic consumer favorite: delicious, sweet taste. Typical chocolate milk contains between 22 and 28 grams of total sugar per 8 ounce serving. About 12 grams of that total sugar is naturally occurring in the milk as lactose. This natural milk sugar is not very sweet, so it takes a fair amount of added sugar to make chocolate milk taste good. A well-balanced chocolate milk typically contains 0.75-1.0% cocoa and 22-28 grams of total sugar (14-16 grams added) per 8 ounce serving. This will provide a nice, rich chocolate flavor and a balanced sweetness. Sweeteners, like allulose, can be used to reduce both added sugar and calories in chocolate milk.

Allulose Syrup can be used up to 3.5% (solids) in chocolate milk as a sweetener or up to 1.5% (solids) as an FMP (FEMA GRAS 4897). Most chocolate milk on the market is mainly sweetened with sucrose and in some cases high fructose corn syrup. Since allulose is about 70% as sweet as sucrose, it is not a 1:1 replacement for sucrose, but it is still an excellent tool to reduce calories and added sugar in chocolate milk. Consumers are becoming more conscious of total sugar intake as well as added sugars on labels, putting pressure on full sugar chocolate milk products. Below are some of my recommendations on how to get started using Allulose Syrup to reduce sugars in low fat chocolate milk:

	A	B	C
	Low Fat Chocolate Milk Reference	Low Fat Chocolate Milk with Allulose at Flavor Levels	Low Fat Chocolate Milk with Allulose as Sweetener
Low Fat Milk	93.39%	92.33%	90.91%
Sucrose	5.7%	4.65%	3.25%
FS-712308 Chocolate Dairy Powder	0.91%	0.91%	0.91%
Allulose Syrup 71%	--	2.11%	4.93%

A

### Nutrition Facts

servings per container  
**Serving size (245g)**

Amount per serving  
**Calories 170**

% Daily Value\*

Total Fat 2.5g	3%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 10mg	3%
Sodium 250mg	11%
Total Carbohydrate 27g	10%
Dietary Fiber 0g	0%
Total Sugars 25g	
Includes 14g Added Sugars	28%
<b>Protein 8g</b>	
Vitamin D 5mcg	25%
Calcium 231mg	20%
Iron 0mg	0%
Potassium 29mg	0%

\*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

B

### Nutrition Facts

servings per container  
**Serving size (245g)**

Amount per serving  
**Calories 150**

% Daily Value\*

Total Fat 2.5g	3%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 10mg	3%
Sodium 220mg	10%
Total Carbohydrate 28g	10%
Dietary Fiber 0g	0%
Total Sugars 23g	
Includes 11g Added Sugars	22%
<b>Protein 8g</b>	
Vitamin D 5mcg	25%
Calcium 276mg	20%
Iron 0mg	0%
Potassium 373mg	8%

\*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

C

### Nutrition Facts

servings per container  
**Serving size 240 ml (245g)**

Amount per serving  
**Calories 140**

% Daily Value\*

Total Fat 2.5g	3%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 10mg	3%
Sodium 250mg	11%
Total Carbohydrate 30g	11%
Dietary Fiber 0g	0%
Total Sugars 19g	
Includes 8g Added Sugars	16%
<b>Protein 8g</b>	
Vitamin D 5mcg	25%
Calcium 288mg	20%
Iron 0mg	0%
Potassium 407mg	8%

\*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

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