

Instant Corn Soy Milk

Instant Corn Soy Milk (ICSM) is a blended, fortified, processed commodity and is a source of high quality energy, protein, minerals, and vitamins. ICSM is precooked and requires only minimal cooking (2-5 minutes) before consumption. ICSM can be used as a high quality nutrient supplement for all age groups. It is particularly suitable as a complementary food for infants over six months (assuming exclusive breastfeeding until six months) and for young children. It can be used in MCH programs, in blanket and selective feeding programs, and as a part of a general ration. When used as a primary food source for young children, vegetable oil and/or sugar should be added to the blended food to increase the energy content and improve the taste. In general, lactose intolerance is unlikely to result from consumption of ICSM. For more information on the physiologic appropriateness of blended, fortified commodities containing NFD, refer to Part Two of the CRG.

A. NUTRITIONAL VALUES (PER 100 g)

These are average values, calculated from nutritive data for Corn Soy Blend (CSB), cornmeal, and Non-Fat Dry Milk (NFD), as listed on the U.S. Department of Agriculture, Agricultural Research Service (USDA:ARS) 2001 USDA Nutrient Database, Release 14, Laboratory Home Page, (www.nal.usda.gov/fnic). These nutrient values are provided as a guide for use in the calculation of food aid rations; users should be aware that shipments of food aid may vary from these exact nutrient values.

B. COMPONENTS

58.9% Cornmeal	Processed, gelatinized
17.5% Soy flour	Defatted, toasted
15.0% Non-fat dry milk	Spray process
5.5% Soybean oil	Refined, deodorized, stabilized
3.0% Minerals	
0.1% Vitamin premix	

C. SPECIFICATIONS

ICSM shall conform in every respect to the provisions of the "Federal Food, Drug, and Cosmetic Act," as amended, and the regulations promulgated thereunder, including any Defect Action Level guidelines issued by the Food and Drug Administration (FDA) which may be applicable to ICSM (See Table next page).

Nutrient	Amount	Unit
Water	8.43	g
Energy	375.10	Kcal
Protein	21.35	g
Total Lipid	6.76	g
Carbohydrate	57.84	g
Fiber, total dietary	7.89	g
Ash	2.90	g
Calcium	1019.55	mg
Iron	17.54	mg
Magnesium	184.30	mg
Phosphorus	338.60	mg
Potassium	878.80	mg
Sodium	87.10	mg
Zinc	5.51	mg
Copper	0.89	mg
Manganese	0.69	mg
Selenium	8.90	mcg
Vitamin C	41.02	mg
Thiamin	0.59	mg
Riboflavin	0.71	mg
Niacin	6.37	mg
Pantothenic acid	3.89	mg
Vitamin B-6	0.51	mg
Folate	285.00	mcg
Vitamin B-12	1.60	mcg
Vitamin A ¹	2617.60	IU
Vitamin E	8.66	mg-ATE
Vitamin D	247.80	IU
Iodine	56.90	mcg

¹For conversion of vitamin A content to Retinol Equivalents, 1 IU = 0.3µg.

CHEMICAL AND PHYSICAL REQUIREMENTS

ITEM	REQUIREMENT ¹	
	Minimum	Maximum
Moisture	--	9.5
Protein (Nx6.25), %	19.0	--
Fat, %	6.0	--
Crude Fiber, %	--	2.0
Material that will pass through a U.S. Standard No. 40 woven-wire-cloth sieve, %	97.0	--
Material that will pass through U.S. Standard No. 100 woven-wire-cloth sieve, %	--	46.0
Consistency (Bostwick Value) uncooked	9.0	--
Total Bacteria Count per gram	--	50,000
Dispersibility – shall be essentially free from lumping or balling		
Salmonella, E. coli shall be negative		

¹ Unless otherwise specified analyses are expressed on a moisture-free basis

Source: USDA: FSA: PDD: EOB September 1999. Contact 202-690-3565

D. PACKAGING

For shipments to Africa, packaging will generally consist of 25 kg. high performance bags. For destinations other than Africa, standard 25 kg. paper bags with multi-wall paper lining will be provided.

E. SHELF LIFE

The shelf life and Best if Used By Date (BUBD) for ICSM are not available. See Section III: Storage/Shelf Life Specifications for more information.