

# LIQUIPROTEIN™

## Extensively Hydrolyzed Protein



### INDICATIONS FOR USE

- For use as a fortifier for human milk or infant formula.
- For preterm infants with increased protein needs.

#### Safety precautions:

- Not for use as a sole source of nutrition.
- Use as directed by a health care professional.
- Do not attach nipple or feed directly.
- If signs of intolerance develop, slow feeding or discontinue.
- Not for parenteral use.

### FEATURES AND BENEFITS

- A commercially sterile, extensively hydrolyzed liquid protein modular; same trusted casein hydrolysate used in Similac® Alimentum®.
- Eliminates the need for protein powder mixing and meets Health Canada<sup>1</sup> and other expert body recommendations<sup>2,3</sup> to reduce the risk of contamination.
- Allows for customized protein intake.
- Safe for preterm infants – study<sup>5</sup> indicates good feeding tolerance and growth when fed full strength fortified human milk with the addition of LiquiProtein™.\*\*
- Minimal impact on osmolality; 1 mL contributes ~12 mOsm/kg water when 100 mL feeding is prepared; osmolality comparable to using Similac® Human Milk Fortifier.†
- Black cap for easy product identification and distinguishing features on label designed to stand out from infant formulas.
- Lactose-free

### TECHNICAL DATA

	Ready to mix
Caloric density (Cal/mL)	0.67
Protein (% of total energy)	100
Fat (% of total energy)	0
Carbohydrate (% of total energy)	0
Total Cal:g nitrogen ratio	25:1
Non-protein Cal:g nitrogen ratio	N/A
Water (g/L)	810
Displacement	1 mL will displace 1 mL of feeding
Osmolality	
Preterm infants	
Osmolality per 100 mL feeding	1 mL contributes ~12 mOsm/kg water
Osmolality as commonly fed†	240-450 mOsm/kg water
Renal solute load (mOsm/L)	-
Viscosity at room temperature/ chilled	-
Minimum tube size for gravity/ pump feeding (Fr)	N/A
Low residue	Yes
Gluten-free	Yes
Kosher	No
Halal	No

### AVAILABILITY

#### Ready to mix

62317X31(Pediatric)	LiquiProtein™	54-mL plastic bottles	48/case
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\*\* 25 mL human milk + 1 packet Similac® Human Milk Fortifier + 1 mL LiquiProtein™.

† Osmolality when supplementing 25 mL of preterm human milk with an equivalent of 0.25 g of protein from the following products:  
 – 1 packet Similac® Human Milk Fortifier: 385 mOsm/kg water;  
 – 1.5 mL LiquiProtein™: 370 mOsm/kg water.

‡ 1 to 6 mL of LiquiProtein™ + human milk, fortified human milk or formula; total volume of 100 mL.

**PREPARATION**

The health of the infant depends on carefully following the directions for preparation and use. Proper hygiene, handling and storage are important when preparing infant feedings. It is recommended that human milk be fortified just prior to feeding.<sup>4</sup>

**Do not add water**

1. Pour LiquiProtein™ into a medicine cup.
2. Using a single use oral syringe, draw up volume specified by a health care professional.
3. Dispense into measured human milk or formula and mix gently. Pour desired amount of mixture into feeding container.

**STORAGE**

- Store unopened at room temperature; avoid extreme temperatures.
- Once opened, refrigerate and use within 72 hours.
- When mixed with human milk or formula, cover and refrigerate unused mixture immediately. Use within 24 hours or according to normal hospital procedure.
- For preterm infants who are tube-fed, fortified milk can remain safely at room temperature (25°C) for up to 4 hours.<sup>2</sup>

**ENERGY**

	Per 6 mL	Per 54 mL
ENERGY (Cal [kJ])	4 (17)	35 (149)
PROTEIN (g)	1	9
% of total energy	100	
Arginine (mg)	42.3	380.7
Cystine (mg)	5.5	49.7
Histidine (mg)	27.8	250.7
Isoleucine (mg)	57.0	513.0
Leucine (mg)	94.8	853.2
Lysine (mg)	85.2	766.8
Methionine (mg)	27.3	245.2
Phenylalanine (mg)	46.9	422.3
Tryptophan (mg)	10.6	95.6
Threonine (mg)	47.7	429.3
Valine (mg)	73.2	658.8
Source	Casein hydrolysate	

**MINERALS§**

Sodium (mg)	5	50
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**INGREDIENTS**

**LiquiProtein™, ready-to-mix liquid:**

Water, casein hydrolysate (derived from milk).

**CONTAINS: Priority food allergens:** Milk ingredients.¶

§ Other inherent minerals may be present in trace amounts.

¶ LiquiProtein™ contains the same trusted casein hydrolysate as used in Similac® Alimentum®.

**REFERENCES:**

1. Government of Canada. Healthy Canadians: Preparing and Handling Powdered Infant Formula. [updated 2012, January 12; cited 2013, September 26]. Available from: <http://www.healthycanadians.gc.ca/kids-enfants/food-aliment/formula-nourrisson-eng.php>
2. Robbins ST, Meyers R eds. Infant Feedings: Guidelines for Preparation of Human Milk and Formula in Health Care Facilities. 2<sup>nd</sup> ed. Chicago, IL: American Dietetic Association. Pediatric Nutrition Practice Group. 2011:47-51.
3. Bankhead R et al. A.S.P.E.N. Enteral Nutrition Practice Recommendations. *J Parenter Enteral Nutr* 2009;33(122): 133-40.
4. Reali A, Greco F, Fanaro S et al. Fortification of maternal milk for very low birth weight (VLBW) pre-term neonates. *Early Hum Dev* 2010;86:S33-6.
5. Shakeel F et al. [ABSTRACT]. *JPGN* September 2015;61(Suppl 2):S112.

Values listed are subject to change. Please refer to the product label or packaging for the most current ingredient, allergen and nutrient profile information.

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