Ketogenic Diet Nutritionals

New product information may supersede the information in this chart. Created June of 2014.

Complete Nutrition Products	Manufacturer	Characteristics	Comments
KetoCal 4:1 Liquid Tetrapack	Nutricia	356 Kcal/tetrapack. Vanilla or unflavored. Casein & whey protein. Contains fiber, DHA and ARA, sweetened with sucralose and sugar.	Fortified to meet Dietary Reference Intakes (USA) for over 1 year of age. May be diluted for pediatrics.
KetoCal 4:1 Powder Note: USA & Canadian formulations differ in micronutrient content	Nutricia	Vanilla flavored powder. Mix with water. Whole milk protein, soybean oil, corn syrup solids, low lactose.	Fortified to meet Dietary Reference Intakes (USA) for over 1 year of age.
KetoCal 3:1 Powder	Nutricia	Unflavored. Whole milk protein, soy and palm oil.	Fortified to meet Dietary Reference Intakes (USA) for over 1 year of age.
KetoVolve 4:1 Powder	Nutr-e-volution	Unflavored, whey protein, palm oil and MCT, low lactose.	Fortified to meet Dietary Reference Intakes (USA and EU) for over 1 year of age.
Ketonia (liquid)	Namyang (Korea)	Ready to feed dairy- based formula for oral and tube feedings. Contains olive oil, low lactose.	Fortified; intended for infants through adults.
Qitong, 4:1 or 2:1 (liquids)	Zenica (China)	4:1 is soy based and 2:1 has casein and soy; both with 30% of total fat from MCT oil.	Fortified; intended for children.

Modular Products	Manufacturer	Characteristics	Comments
Lipid-based Products			
Beta Quick	Vitaflo (Europe/USA)	Medium chain triglyceride oil emulsion.	May be used as a drink or mixed into formula, food or beverages. Cannot be used as the sole source of fat as it does not contain essential fatty acids.
Liquigen	Nutricia (Europe/USA)	Medium chain triglyceride oil emulsion.	May be used as a drink or mixed into formula, food or beverages. Cannot be used as the sole source of fat as it does not contain essential fatty acids.
Calogen	Nutricia (Europe)	Long chain fat oil emulsion. Three Flavors. Unflavored is carb-free. Strawberry and Banana contain 4.3gm carb per 100mL.	May be used as a drink or mixed into formula, food or beverages.
Carb Zero	Vitaflo (Europe/USA)	Long chain triglyceride oil emulsion (canola).	May be used as a drink or mixed into formula, food or beverages.
Microlipid	Abbott (USA)	Long chain triglyceride oil emulsion (safflower).	Designed for mixing into formulas.
MCT oil	NOW Foods Goldline Nestle Nutr-e-volution	100% medium chain triglyceride oils from coconut and palm oils.	Cannot be used as the sole source of fatty acids as it does not contain essential fatty acids.
Dietary oils	Various brands	Primarily monounsaturated: olive, canola, peanut, avocado. Primarily polyunsaturated source of essential fats: flaxseed, grapeseed, pumpkin, sesame, sunflower, walnut.	Will settle out of formula solution unless the formula contains an emulsifier.

Carbohydrate			
Corn starch (powder)	Argo and other brands	Glycemic index <50.	Inexpensive. Can settle out of liquids.
Maltodextrin 6/19 (powder)	Nutricia (Europe)	Raw corn starch. Glycemic index<50.	Dissolves easily into liquids.
SolCarb (powder)	Solace Nutrition	100% Maltodextrin powder.	Dissolves easily into liquids.
Protein			
RCF – Carb-free formula (liquid concentrate)	Abbott	Liquid formula concentrate intended for infants but may be used for others. Low in sodium.	Must be diluted. Ketogenic formulation requires fat and carbohydrate modulars. Low in micronutrients for ages >1 year. Low in sodium and potassium.
Resource Protein88 (powder)	Nestle (Europe)	Milk protein; 88% protein. Contains 0.3gm lactose (carb) per 100gm.	Helpful for increasing the protein content of formulas or beverages.
Whey UP (powder)	Nutr-e-volution	Whey protein concentrate: min. 80% protein, 7% fat and 4.5% lactose	Helpful for increasing the protein content of formulas or beverages.
Other protein powders: OHemp protein Soy protein Isolate Whey protein Isolate Egg white protein Sprouted protein Complete amino acids (Nutricia)	Various brands	Protein is the main ingredient.	Helpful for increasing the protein content of formulas or beverages or when designing a formula for someone who is allergic to intact dairy or soy proteins.

Special Products			
KetoCuisine (powder)	Solace Nutrition	5:1 ratio; Sunflower oil, Maltodextrin, Cellulose, Sodium caseinate, Silicon dioxide.	High-fat, low-carb powder for cooking, baking and beverages.
FruitiVits (powder) For children over 4 yrs.	Vitaflo (Europe/USA)	Multivitamin, mineral and trace minerals designed for ketogenic diets and for inborn errors of metabolism. Minimal carbohydrate.	May be taken orally and via feeding tubes. Must be dissolved in liquid. "Medical Food" status in the USA.
NanoVM (powder) Two formulations: 1-3 years of age 4-8 years of age	Solace Nutrition	Multivitamin, mineral and trace minerals intended for children. Minimal carbohydrate. Hypoallergenic.	Intended for oral use. Must be dissolved in liquid.
KetoCALMAG (powder)	Nutr-e-volution	Calcium, magnesium, potassium & vitamin C supplement; effervescent powder.	Dissolves in warm water. Neutral tasting

Nutrition supplementation is recommended with ketogenic diet therapies unless a fortified formula is the main source of nutrition and meets micronutrient needs. Examples of nutritional supplements include the following. Products should contain minimal or no carbohydrate including sugar, derivatives of sugar, organic acids, sugar-alcohols, propylene glycol and glycerin.

- 1. Multivitamin and minerals all-in-one supplement.
- 2. Individual supplement examples:
 - Minerals: Calcium, Phosphorus, Zinc, Selenium, Potassium
 - Vitamins: B6, Folic Acid, Vit. D, Vit. K,
 - Amino acid: Carnitine
 - Digestive aids: laxatives, digestive enzymes,
 - Buffers (to neutralize acidosis)