 Comparative study of powdered milk for babies, Baez Oliva, J.J., Ruiz Ortiz, M.A., Valdés Martínez, S.E., Universidad Nacional Autónoma de México, Facultad de Estudios Superiores Cuautitlán, Av. 1º de Mayo s/n, Col. Atlanta, Cuautitlán Izcalli, Estado de México, C.P. 54710, sara@unam.mx

Milk is the secretion, excluding colostrum, that can be obtained by normal methods of milking healthy cows. Powdered milk is the milk where 96% of its water has been eliminated. For newly born and young children, powdered milk has to be modified to resemble human milk, this milk, has to comply with strict quality norms. The aim of the present study was to compare the quality of 5 different milks in the market: Physicochemical (air tightness, percent of O2, weight, density, solubility, sediment, acidity and pH); sensory (aspect, color, scent and flavor); proximate (humidity, ashes, proteins, fats and carbohydrates); vitamin (Vit. A, Vit. B1, Vit. B2, Vit. B6 y Vit. C) and mineral (potassium, sodium, magnesium, calcium, phosphorus, iron, manganese, zinc and copper) analysis were done applying official methods, triplicate determinations were carried out per sample. Results show moisture content from 2.4-3.1%; fat content from 22.5-27.6%; protein content from 12.2-14.3%, carbohydrates from 54.2-56.7%, Vit. C 39-127 mg/100g, Vit. B1 0.52-1.1 mg/100g, Vit. B2 0.64-0.99 mg/100g, Vit. B6 0.42-0.51 mg/100g, Vit. A 1520 to 2505 UI, Sodium 114-175 mg/100g, Potassium 440-655 mg/100g, Calcium 382 to 530 mg/100g, Phosphorus 255-415 mg/100g, Magnesium 42 to 52 mg/100g, Iron 6.5-11 mg/100g, Zinc 4.2-5.1 mg/100g, Copper 32-515 µg/100g, Manganese 85-190 µg/100g. All samples complied with the information displayed in their Nutritional label and nutritional requirements established in Mexico for babies, one sample failed the air tightness test, only one sample failed to comply with the nutritional requirements for sodium and calcium.