What do we know about chemical compounds in formulas: are they safe?

Infant formula powders contain many chemical compounds formed during industrial processing of cows’ milk to make formula. These compounds may provoke chemical reactions once the package or container is opened and exposed to oxygen. Lengthy storage or storage at warm room temperatures can increase the Maillard reaction. « The content of Maillard reaction products in infant formulas, particularly the hydrolyzed ones, exceeds that of breastmilk by hundreds-folds. » See: Plasma concentration and urinary excretion of N epsilon-(carboxymethyl)lysine in breast milk- and formula-fed infants. at:

The Maillard reaction gives browned foods their flavour but shows a correlation with some diseases in the human body; it also produces furfural compounds which can be toxic. Read more: Content and evolution of potential furfural compounds in commercial milk-based infant formula powder after opening the packet at: