

Shelf Life

Effect of Storage Time and Temperature on the Vitamin Levels of a Certified Rodent Diet 5002 (1998)

LabDiet® Certified Rodent Diet, 5002, was stored at 10° (-12°), 70° (21°), and 100° (38°) F(C) and 50% relative humidity for 0, 90, 180 and 360 days post manufacture. Vitamin content was assayed. Retention of assayed vitamins is recorded in Figures 1 and 2.

Results indicate stability of thiamin and vitamin A is inversely related to storage temperature. Very little vitamin loss was observed through 6 months post manufacturing when stored at 10° or 70° F. However, at least 60% of both thiamin and vitamin A was lost when stored at 100° F for 90, 180 and 360 days post manufacturing.

Storage of 100° F is never recommended for laboratory animal diets resulting in a diet with inadequate thiamin and vitamin A concentrations to meet the animals' minimum requirements.

LabDiet® products should always be stored at 72° F and 50% or less relative humidity.

Figure 1. Effect of storage (0, 90, 180, 270 days) temperature (10, 70 and 100° F) and time on the percent retention of thiamin in LabDiet® 5002

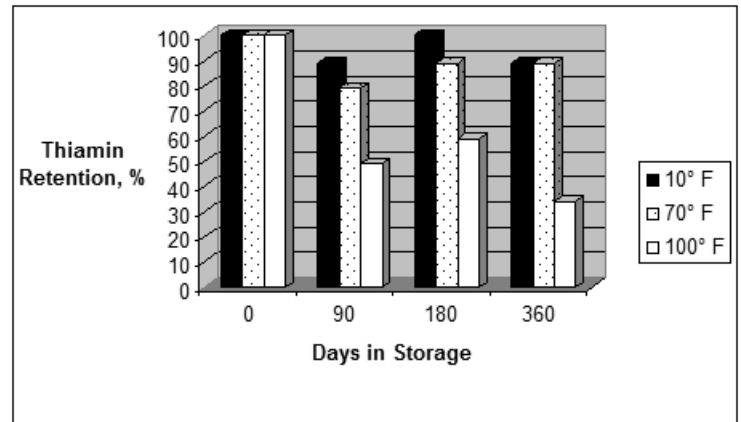


Figure 2. Effect of storage (0, 90, 180, 270 days) temperature (10, 70 and 100° F) and time on the percent retention of Vitamin A in LabDiet® 5002.

