



## STORAGE CONDITIONS CALF MILK REPLACER

**Standard shelf life of Nukamel milk replacers is 12 months provided good storage conditions**

Conditions during transport and storage may affect product integrity. Humidity and high temperatures are negative conditions which can be a root cause of clump formation and spoilage in calf milk replacers.

The **duration and intensity of the environmental factors** influences the quality and integrity of a CMR. This could cause:

- Reduction of flavour and fragrances
- Increased spoilage
  - Condensation
  - Fat oxidation / rancidity (impacting the taste/smell)
  - Loss of nutritional values
  - Loss of vitamin activity (most notably in fat soluble vitamins A, D, and E)
- Lump formation and caking

Implement the principles of **FIFO (first in-first out)** when storing CMR. After opening a bag, close the bag carefully. Store the bag in an airtight container that can be closed well. This helps minimize exposure of the CMR to humidity, light and pests.

We recommend using storage rooms for calf milk replacers, where the following storage conditions must be met:

- **Controlled temperatures: keep at room temperature (15-25°C)**
  - Ideal storage temperature of CMR is room temperature (**15-25°C**) with variations allowed from 5-30°C
  - Prevent extreme temperature fluctuations in storage facilities
  - Avoid storing in very warm conditions (>30°C)
  - Always keep the product out of direct exposure to sunlight
- **Controlled humidity: maximum 60 % humidity**
  - Keep storage only in dry areas
  - Do not store the product in humid conditions, near water, steam, or leakages
  - Do not store the product in a room filled with animals generating heat and moisture
- **Consider pests**
  - Keep out rodents and other pests (mouse, rats, birds, insects) by storing in a closed room
  - Maximize pest control with help of a professional and certified pest control company
  - Store on a pallet, not directly on the floor and away from the walls
- **Compaction of CMR**
  - Minimize the number of pallets piled high – max. 2 pallets high