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Extra Fine Potassium Carbonate
Shelf Life, Retest and Storage Conditions

Potassium carbonate (K_2CO_3 or pot carb) is an inorganic chemical that does not change or chemically degrade with time when stored under perfect conditions. These ideal conditions would be a completely sealed container stored at room temperature. Furthermore, this product must not be contaminated nor exposed to conditions that could cause a reaction. Extra fine potassium carbonate would have an infinite shelf life in such an environment.

If dry potassium carbonate is exposed to air or allowed to contact moisture otherwise, the total alkalinity will decrease slightly because of the increased water content for a given weight. This moisture does not chemically react with the potassium carbonate to form any other chemicals.

In reality, packages of extra fine pot carb cannot be perfectly sealed, thereby allowing for some moisture adsorption. Armand Products extra fine material is more hygroscopic than the dense regular or glass grades due to its finer particle size and more surface area. Therefore, a moisture barrier in the form of a polyethylene bag is utilized where feasible, as when drumming this product grade.

If the potassium carbonate is properly stored and unadulterated, it may be used indefinitely. It is recommended that our customers use the FIFO (first in, first out) method of inventory as a means to minimize problems with packaged products.

Normally a retest should be performed every two years. If however, the user requires only a portion of the container's contents and the precise % Total Alkalinity is critical, more frequent retesting is recommended. The product should also be tested for moisture content (% LOD).

Storage Conditions:

1. Contamination from chemicals and debris must be avoided to maintain product quality.
2. Weather effects: Store in protected warehouse to minimize damage to the product packaging.
3. Atmospheric moisture effect: The air moisture effect begins when the equilibrium relative humidity reaches 43%. Above this R.H., the Pot Carb will deliquesce and keep on adsorbing moisture, forming a wet spot on the packaging or even a puddle. Below the 43%, the Pot Carb will appear dry.
4. Temperature effect: Pot Carb does not begin to decompose appreciably until 1,000°C.

Please feel free to contact our Technical Service staff should additional questions or concerns arise regarding this topic.

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