

# Fruit Juice, Concord Grape, Puree

Revised 2018

## Storage Conditions

	Single Strength 15-18° Brix	Concentrated 34-45° Brix
Temperature	0 to -10°F (-17.8 to -23.3°C)	0 to -10°F (-17.8 to -23.3°C)
Storage Period	1 year	2 years

The loss of quality attributes of frozen Concord single strength puree and concentrated puree is negligible, provided the puree remains at 0-10°F (-17.8 to -23.3°C). Single strength grape puree may show some potassium tartrate crystals because of lack of enzyme and filtration treatment. The crystals can be expected to re-dissolve in further sweetener blending in a manufactured product such as preserves/jams. Because potassium tartrate can complement dextrose crystallization from the fruit, sugar, or corn sweeteners, it is important to maintain sweetener balances in formulations.

Single strength grape puree may have some heat and cooling applications in processing; however, the heating temperatures are normally reduced to 140-160°F (60-71.1°C) and therefore will not provide assurance of microbial reduction at time of packing. Single strength puree can have approximately 8-9% expansion during freezing, and this expansion potential should be used to establish net fill weights for drums or pails.

Concentrated grape puree is usually subjected to short time high temperatures in the concentrating process and therefore can be expected to have a reduced microbiological load. It should generally be stored and distributed in a frozen state.

## Packaging

Modern packaging of purees and puree concentrates utilizes some form of aseptic totes. There are a number of different styles, including stainless steel totes that can be sterilized and reused; reusable plastic totes with disposable aseptic liners; or large (275 to 300 gallon) fiberboard disposable totes. It is important to note that none of these container types are designed for frozen use. Freezing and thawing destroys the integrity of the disposable fiberboard totes, and the plastics can become brittle and/or break. Stainless steel totes can burst with freezing due to internal gas pressure. As a result, containers should be stored in either ambient or refrigerated areas using similar storage length as drums under the same conditions. This limits their use to aseptic products. After opening, the items either need to be used immediately or transferred into another container for refreezing and storage.

Grape puree is not normally shipped in bulk truck tankers. Packing of grape puree is normally into 30-lb (13.6-kg) net weight plastic pails or 55-gal (208-L) drums.

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