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Sulfite waste liquor concentration

Scope

A graph is presented for the estimation of the solids concentration of sulfite waste liquors based on the measurement of liquor specific gravity.

Safety precautions

No safety precautions are required. This procedure is for data conversion only.

Content

The chart presented is based on material from CPPA and Moore (1,2). For 35-45% solids, specific gravity of calcium-based waste liquors may be 0.01 units smaller than shown. For 50-55% solids, specific gravity may be 0.02 units smaller over the entire range (3).

Sodium sulfite liquors, both acid and alkaline, may have specific gravity 0.02 units higher than shown at 50-60% solids (4, alkaline data at 25°C). Thus, sodium sulfite waste liquor specific gravity approached that for kraft black liquor (1,3).

The relationship for NSSC waste liquor follows that of sodium sulfite waste liquor.

The properties of waste liquor will vary with wood species, base, cooking process used, etc., and therefore this data should be used with caution.

The relationships in the figure should be used as a guide only.

Keywords

Sulfite pulping, Sulfur dioxide, Monosulfite, Bisulfite, Sulfite waste liquor, Temperature, Specific gravity, Solids content.

Additional information

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