

Thickened Bleach Cleaner No. 493

		Wt. %
A	VAN GEL® O Magnesium Aluminum Silicate	3.0
	Deionized Water	83.0
B	NaOH (50% Solution)	1.0
	Commodity NaOCl (12.5% Solution)	12.0
	Sodium Dodecyl Diphenyl Oxide Disulfonate (Calfax® DB-45 Surfactant ¹)	1.0

Procedure:

Step 1 – Sift the **VAN GEL® O** into an established vortex in the deionized water. Mix at maximum available shear until completely hydrated.

Step 2 – Slowly add the NaOH solution while mixing. Careful control of mixing speed is required during this step because the viscosity of the batch will increase. Mix until smooth.

Step 3 – Check the pH of the batch; it should be above pH 12. Reduce mixing speed and slowly add the NaOCl solution. Mix until uniform.

Step 4 – Reduce the mixing speed to a minimum, then add the surfactant. Mix until uniform while avoiding air entrapment.

Formula Characteristics:

Initial pH:	12.5
Initial Assay:	1.5% NaOCl

Additional Formula Considerations:

Strict control of the NaOH level to adjust formula pH is required in the preparation of this formula. Proper pH control is essential over the storage life of the product since it has a direct effect on bleach loss. Improper pH control will result in excessive bleach loss.

Some of the other factors that can influence the bleach stability of this formula are: any factor that will accelerate bleach decomposition, e.g. metallic contaminants; the amount and source of the commodity bleach; the source of the caustic; the amount and type of surfactant and the storage conditions of the finished product.

It is therefore recommended that the bleach stability profile of this formula be verified.

RAW MATERIAL SUPPLIERS

¹Pilot Chemical Company, Cincinnati, OH

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