





Vanderbilt Minerals, LLC, 33 Winfield Street, P.O. Box 5150, Norwalk, CT 06856-5150 Telephone: (800) 562-2476 - Fax: (203) 855-1220 - Web Site: vanderbiltminerals.com

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Suspension Concentrates

Often Included Ingredients:

Antifreeze (glycol) Evaporation Control Additive (glycol) Preservative

Antifoam

Suspending Agent(s)

Some dispersions are made without a suspending agent because the particle size is extremely fine, the concentration is very high, or the viscosity is high.

The rest rely on suspending agents for optimum stability.



	ی 💓	SUSPENDING AGENTS		
	VAN GEL B	The standard economical grade for most suspensions		
	VAN GEL ES	The most electrolyte tolerant grade		
VEEGIM [®]	VAN GEL SX	Smectite clay/Xanthan Gum blend; high efficiency stabilizer		
Magnesium Aluminum Silicate	VANATURAL	OMRI listed purified bentonite clay		
VANATURAL®	VEEGUM	The standard grade for a wide range of applications		
Bentonite Clay	VEEGUM CER	Smectite clay/CMC blend; high efficiency stabilizer		
	Several addi	tional grades are available to match formulation requirements.		
VANZAN ®	VANZAN	The general purpose grade suitable for most applications		
	VANZAN D	Surface-treated to facilitate dispersion without lumping		
W DISPERSING AGENTS				
DARVAN®	DARVAN 2	Sodium lignosulfonate		
Dispersant	DARVAN 670	Sodium polynaphthalenesulfonate		
	DARVAN 7-N	Sodium polymethacrylate		
	DARVAN 811	Sodium polyacrylate		
	DARVAN 821A	Ammonium polyacrylate		
	Several additi	onal grades are available to match formulation requirements.		



Making Suspension Concentrates

Wet-Mill Method

Dispersion Method

Water, wetting agent, dispersant, coarse particles and all other ingredients that are not shear degradable are added to a media mill: Attritor[®] (pictured), ball mill, bead mill, sand mill.







suspending agent	VAN GEL B [®] magnesium aluminum silicate	0.25
	Water	22.87
dispersant	Na Polynaphthalenesulfonate	2.50
antifreeze	Propylene Glycol	10.00
defoaming wetting agent	Surfynol [®] 104H acetylenic diol	0.05
wetting agent	Triton [®] X114 ethoxylated nonylphenol	0.20
	Preservative	0.20
	Flour Sulfur	64.00
suspending agent	VANZAN [®] xanthan gum	0.03

Making Suspension Concentrates

Wet-Mill Method

Dispersion Method



The particles are already at their required particle size. Using a dispersing mixer, the suspension system (e.g., smectite/xanthan gum) is hydrated first.





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