



SYLVAGEL™ HP5 Specialty Polymeric Gellant

Product Description

SYLVAGEL™ HP5 is a partially vegetable derived polymer. It is 100% active and is supplied in pastilles. It is formed by the reaction of functional amines, diacids and mono-alkoxylated amines designed to improve compatibility with medium to high polarity liquids. It gels liquids via hydrogen bonding between the amide groups.

Typical Properties

Bio-based carbon content,%, ASTM D6866	59
Softening Point °C, Ring & Ball	93
Color, Gardner	<6
Acid Number	<15
Amine Number	<3

Features

Benefits

Based on nature derived dimerized fatty acid	High bio-renewable carbon content
Unique, patented polyamide chemistry	Hydrogen bonding of the amide groups between polymer chains yields clear, thermo-reversible gels
Compatible with high polarity liquids	Recommended for gelling polar glycols, ethers and surfactants. Will not gel water but will gel higher glycol/water blends. Will gel acrylate (TMPTA, TPGDA, acrylate esters) monomers. Will gel TETA.
Highly polar	Can be used to formulate water soluble gels for lavatory care applications
Polyamide chemistry, residual acid and amine functionality	Dispersion and stabilization of minerals and pigments

CAS Number

1093268-37-1



Technical Service: Savannah, GA (912) 238-6556
Sales Service: Jacksonville, FL (800) 526-5294
Sales Service: Almere, The Netherlands +31 36 5462 800
www.arizonachemical.com

The information and statements herein are believed to be reliable, but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE. Nothing herein is to be taken as permission, inducement or recommendation to practice any patented invention without a license.



Product Data Sheet

Suggestions for Use

SYLVAGEL™ HP5 is suggested for use in making clear gels of mid to high polarity organic liquids where low color and clarity are important. Example applications include gelling of glycols, PEG's, polar acetates, ketones and surfactants. Will not gel water but will gel water, glycol surfactant blends.

SYLVAGEL™ HP5 can be used to gel high polarity fragrance oils in combination with water, glycols and surfactants to make high fragrance loaded, water soluble air fresheners. Clarity can be obtained by controlling water to glycol ratio.

SYLVAGEL™ HP5 is an excellent additive for dispersion and stabilization of oil based minerals, pigment or abrasives suspensions. Mineral or pigment stabilization results in significantly lower viscosities allowing for higher mineral or pigment loadings.

Gel concentration is proportional to polymer loading; 1 to 5% results in a shear thinning, thixotropic fluid. Higher loading can result in clear hard solids. To make a gel, heat the polymer in the target fluid to near its softening point (85 to 90° C) while mixing until polymer has melted and solution is completely clear. Cool to room temperature. Full gel strength will be realized after a few hours.

Please See "Specialty Polymers for Home Care and Industrial Applications Master Compatibility Table" for a list of materials tested.

Storage and Handling

Storage Conditions

Resin is soft at room temperature, compaction may occur during storage. To minimize compaction the resin should be stored in closed bags, pallets should not be stacked. Store at or below room temperature. Oxidation may occur over time resulting in darkening of the product.

Packaging

Resin is available in pastille form in multi-wall bags, 44 lbs net.



Technical Service: Savannah, GA (912) 238-6556
Sales Service: Jacksonville, FL (800) 526-5294
Sales Service: Almere, The Netherlands +31 36 5462 800
www.arizonachemical.com

The information and statements herein are believed to be reliable, but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE. Nothing herein is to be taken as permission, inducement or recommendation to practice any patented invention without a license.



SYLVAGEL™ HP5 UV Curable Monomers and Oligimers

Modify the rheology of UV curable systems to provide “shear thinning” or thixotropic behavior at relatively low additive loadings. Weak to hard gels result.

SYLVAGEL™ HP5			
	1%	2%	5%
BisAEODA	----	Hazy, Soft Gel	Hazy Gel
PEGDA	Clear, Jelly	Clear, Soft Gel	Clear, Gel
TPGDA	Clear, Soft Jelly	Clear, Strong Jelly	Cloudy Gel
HDDA	Clear, Soft Jelly	Clear, Strong Jelly	Clear, Soft Gel
GPOTA	----	Hazy, Strong Jelly	Hazy Gel
TMPTA	----	Clear, Strong Jelly	Clear, Soft Gel
TMPEOTA	----	Hazy, Strong Jelly	Clear, Gel

ACRYLATE MONOMERS

Dis

BisAEODA - BISPHENOL A ETHOXYLATE (2 EO/PHENOL) DIACRYLATE Mn ~512

PEGDA - POLY(ETHYLENE GLYCOL) DIACRYLATE Mn ~258

TPGDA - TRI(PROPYLENE GLYCOL) DIACRYLATE mix of isomers

HDDA - 1,6 HEXANEDIOL DIACRYLATE (SARTOMER SR238B)

Tris

GPOTA - GLYCEROL PROPOXYLATE (1 PO/OH) TRIACRYLATE Mn ~428

TMPTA - TRIMETHYLOLPROPANE TRIACRYLATE

TMPEOTA - TRIMETHYLOLPROPANE ETHOXYLATE (1 EO/OH) TRIACRYLATE Mn ~428



Technical Service: Savannah, GA (912) 238-6556

Sales Service: Jacksonville, FL (800) 526-5294

Sales Service Almere, The Netherlands +31 36 5462 800

www.arizonachemical.com

The information and statements herein are believed to be reliable, but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE. Nothing herein is to be taken as permission, inducement or recommendation to practice any patented invention without a license.