



## SYLVAGEL™ 5100 Specialty Polymeric Gellant

### Product Description

**SYLVAGEL™ 5100** is a vegetable derived polymer. It is 100% active and is supplied in pastilles. It is formed by the reaction of functional amines and diacids terminated with stearyl alcohol. It gels liquids via hydrogen bonding between the amide groups. The diacid portion of the polyamide and its terminating group are soluble in and associate with liquid to be gelled.

### Typical Properties

Bio-based carbon content,%, ASTM D6866	95
Softening Point °C, Ring & Ball	83
Color, Gardner	<8
Acid Number	<20
Amine Number	<2

### 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 low polarity liquids	Recommended for gelling soy methyl esters, "green" solvents, hydrocarbons, mineral spirits, dicapryl adipate and mineral oils.
Polyamide chemistry, residual acid and amine functionality	Dispersion and stabilization of minerals and pigments

### CAS Number

363162-42-9



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# Product Data Sheet

## Suggestions for Use

SYLVAGEL™ 5100 is suggested for use in making clear gels of low polarity organic liquids where color is unimportant. Example applications include gelling of terpenes, mineral oil, mineral spirits or industrial solvents for cleaners and degreasers.

SYLVAGEL™ 5100 can be used to gel low polarity fragrance oils in combination with oil based diluents to make high fragrance loaded, solid air fresheners for applications where color is unimportant.

SYLVAGEL™ 5100 is an excellent additive for dispersion and stabilization of oil based mineral, pigment or abrasives suspensions. Mineral or pigment stabilization results in significantly lower viscosities allowing for higher solids loadings.

Gel strength 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 (75 to 80° 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 and 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 (20 kgs) net.

### General

Blooming (a white, powdery film on the surface of the pastille) is a normal phenomenon found during long term storage of this polymer. It occurs when residual chain terminator migrates to the pastille surface. It has no influence on the performance of the product.



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