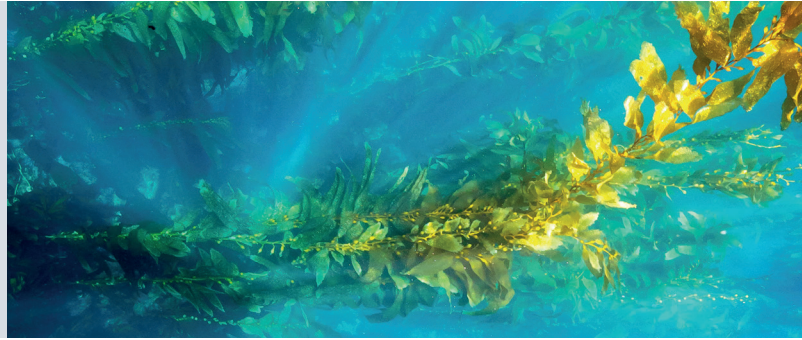


Clearthix® S – FACT SHEET

Clearthix® S is a naturally derived water thickener which makes transparent, rich, smooth gels suitable for a variety of uses. It can be used on its own or as part of an emulsion or surfactant formula and requires no heating.



TECHNICAL INFORMATION

INCI	Cellulose Gum, Algin
Origin	Vegetable based, Non Palm derived, Vegan, non GMO
Certification	74% Natural Origin (ISO 16128)
Appearance	White Powder



FORMULATING DETAILS

How to use	Disperse Clearthix® S in cold water using a homogeniser to fully hydrate the powder. To prevent lumps from forming, pre-mix in a small amount of glycerine, or sprinkle on the surface and leave for several minutes before homogenisation.
Tips	Keep pH between 5 and 9. Clearthix® S gels will tolerate up to 3% of NaCl and 30% Ethanol. The gel formed may contain air making it look cloudy, but this should clear within 24 hours. If using in a surfactant formulation, make the gel first and then gently stir in surfactant to prevent excess air being trapped. Preserve formulations well as gels are susceptible to microbial contamination.

COMPATIBILITY WITH SURFACTANTS (1.5% CLEARTHIX® S)

Surfactant	% Solids in final formulation	Appearance and Stability	Viscosity after 3 wks (CPs) Spindle 4, 10rpm
Cocamidopropyl Betaine	7	Transparent, smooth, stable	8380
Sodium Lauroyl Sarcosinate	6	Transparent, smooth, stable	9860
Decyl Glucoside	3	Transparent, smooth, stable	6560
Caprylyl/Capryl Glucoside	10	Transparent, smooth, stable	8000

APPLICATIONS



Eye gels



Facial gels



Serums

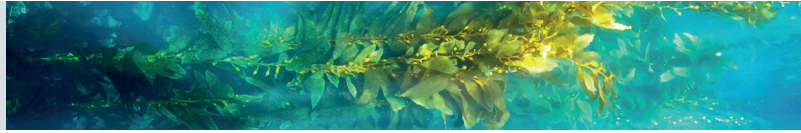


Emulsions



Facial or body wash

Clearthix® S



VISCOSITY & RHEOLOGY

Clearthix® S gels are shear thinning, but have some flow and do not suspend particles.

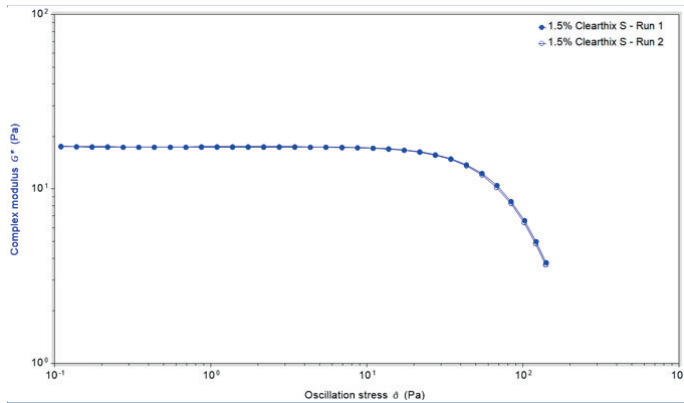


Figure 1: Complex Modulus (Pa) (Measure of rigidity) v Oscillation Stress (Pa)

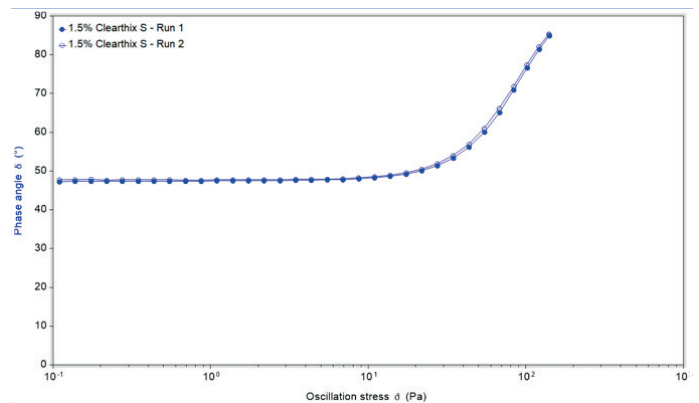


Figure 2: Phase Angle (°) (Measure of elasticity) v Oscillation Stress (Pa)

VISCOSITY

There is a gradual increase in viscosity with an increase in the % of Clearthix® S used. We recommend a level of between 1 and 2% depending on application.

