ALCHEMY ingredients

PHARMA

TECHNICAL FACT SHEET - SUCRAGEL

BACKGROUND

Sucragel products were developed for cosmetic applications; however, their capability for active delivery and versatility have put them in demand for dermal products in pharmaceutical applications.

WHAT IS SUCRAGEL?

Sucragel is a vegetable-derived liquid blend that allows the formulator to make stable, transparent gels easily

- ISO 9001 production, Pharma GMP feasible
- Pharma grade materials can be used
- Gels are viscoelastic (shear thinning), easy to pick up and apply to skin
- Multiple grades available
- Variable textures possible
- Wide range of oils can be gelled

QUALITY MANAGEMENT SYSTEMS

- **ISO 9001** – the materials are produced under a traceable ISO 9001 QMS and the facility is open to audit subject to MOQ
- **Pharma grade** – the raw material ingredients can be fully Pharma grade to compendial requirements as required
- **Pharma GMP** – there is scope to make the materials in a fully Pharma GMP compliant environment should the need arise

Please feel free to contact us to discuss further

Typical Simple Formula

Phase A	
Sucragel	20%*
Sucrablend SP V2	0.5%†
Phase B	
Oil (Veg Oil, ester, silicone)	79.5%
Phase C	
Other additives (perfume, colour etc.)	qs
Water (to achieve transparency if required)	0 – 2%

* CF, AOF, AOF Bio. 15% recommended for AP V2 and XL grades. †Sucrablend SP V2 not needed for XL grade. May need to adjust levels according to viscosity required

Applications	Formula Prototypes available
• Gel-to-milk/melting topical products	• Multi-gel to milk
• Creams and Serums, inc sprayable	• Butter Mist
• Functional gels	• Targeted, Medicated Foot scrub products
• Scrubs including salt/sugar	
• Topical Dermatology Wipes	

ALCHEMY ingredients

TECHNICAL FACT SHEET - SUCRAGEL

PHARMA

EMULSIONS

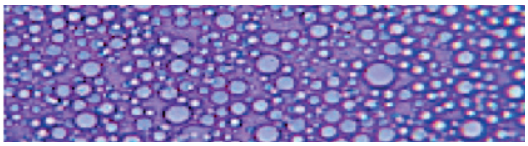
Use Level for an emulsion: Use Sucragel at 5-10% in the oil phase.

How to use: Sucragel can be used as a cold process o/w emulsifier in the oil phase and the emulsion made in the usual way (add the oil phase into the water phase under homogenisation).

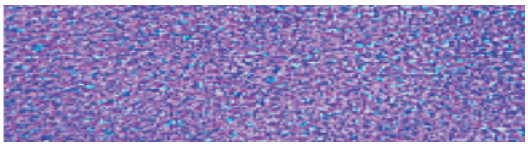
Formulation Tips: Alternatively the oil phase can be gelled with Sucragel before combining it with the water phase. By creating an emulsion in this way the final emulsion will have a micro-emulsion aspect and will be more stable due to the smaller oil particle size.

Sucragel does not add any viscosity to an emulsion and often a co-emulsifier is also needed with a water thickener in the water phase to provide viscosity.

Emulsion via a **standard** process:



Same emulsion made **via an oily gel intermediate**:



Determination of Skin Hydration, *in vivo* data

A hydration study was conducted with 20 subjects using 2 oily gel cleansers, one based on Sucragel CF and one with Sucragel AOF. These were compared with a moisturising SLES based cleanser.

Each of the three products was massaged onto the subject's skin before being rinsed off. Readings were then taken using a corneometer at periods of 2 hours and a comparison made with an untreated area of the skin.

RESULTS:

Skin is twice as hydrated 2 hours after using a Sucragel based cleanser compared to using a moisturizing SLES Cleanser.By using Sucragel at 20% in an oily gel cleanser the skin will remain significantly hydrated after 8 hours. Skin stays hydrated all day long and no need for a moisturiser.