

Z-EMUSLIX D-10 / DEMONSTRATION

O/D Gel Preparation Procedure

Reference formulation • Crystal Essence Oil Cream XY260707-1

No.	Phase	Trade name	INCI	%	Supplier	Function
1	A	Z-Emuslix D-10	COCAMIDOPROPYL BETAINE, WATER, CITRIC ACID, POLYGLYCERYL-10 LAURATE	3.50	GREENZN	Emulsifier
2		Glycerin	GLYCERIN	20.00		Humectant
3	B	EMOGREEN L15	C15-19 ALKANE	31.50		Emollient
4		GTCC	CAPRYLIC/CAPRIC TRIGLYCERIDE	40.00		Emollient
5	C	Water	WATER	5.00		Solvent

1. Prepare the D-phase (Phase A)

Thoroughly mix glycerin (a polyol) with Z-Emuslix D-10 to form the D-phase.



1. Weigh the required amount of Z-Emuslix D-10 into a beaker.



2. Add glycerin.



3. Stir to disperse and mix thoroughly.

PREPARATION / OIL PHASE & GEL FORMATION

2. Prepare the oil phase (Phase B)

Weigh the required amount of GTCC into a separate container, then add EMOGREEN L15.



1. Weigh out GTCC.



2. Add EMOGREEN L15.

3. Form the O/D gel

Mix all oil-phase ingredients together, then slowly add the oil phase dropwise to Phase A (the D-phase). Monitor the consistency of the mixture and adjust the stirring speed as needed until an oil-in-D-phase (O/D) gel forms.



Oil addition and mixing.



Target consistency: the gel should have an appearance similar to that shown above..

PREPARATION / CLARITY & AIR REMOVAL

4. Adjust the transparency

Add water (Phase C) to the O/D gel to adjust its transparency. This step may be omitted if transparency is not required.



Add water to adjust the transparency of the gel.

5. Remove entrapped air

Use a laboratory centrifuge to remove entrapped air bubbles from the gel.



Laboratory centrifugation.



Gel sample.

6. Demonstrate emulsification upon water addition

Demonstrate how the O/D gel emulsifies when water is added.



Apply the gel.



Add water.



Spread the gel to demonstrate emulsification.