GOON RESEARCH
DEGENERATE MATERIAL SCIENCE

Prototype GR-4XT Formulation Sheet

Ingredient	Function	w/w	Source
Cocos Nucifera (Coconut) Oil	Primary Emollient	34.00	Nutiva
Caprylic/Capric/Lauric Triglyceride (MCT Oil)	Slip Enhancer	20.00	Sports Research
Polybutene 24000 cSt	Film Former	12.00	TKB Trading
Hydrogenated Polyisobutene 1200 MW	Film Former	10.00	Making Cosmetics
Petrolatum	Cushion & Film Former	10.00	Making Cosmetics
Dimethicone 350 cSt	Slip Enhancer	5.00	TKB Trading
Microcrystalline Wax 80	Structuring Agent	4.00	Making Cosmetics
Lauryl Laurate	Slip Enhancer	2.00	Making Cosmetics
Trihydroxystearin (THS)	Structuring Agent	2.00	Making Cosmetics
Diphenylsiloxy Phenyl Trimethicone	Slip Enhancer	1.00	Lotion Crafter

Method

1. Combine all ingredients except THS in a heat-resistant glass beaker.
2. Heat to 85–90 °C with continuous mixing until all waxes and petrolatum are fully melted and the mixture is completely uniform.
3. Once the batch is fully molten and stabilized at 85–90 °C, increase to high shear mixing.
4. Slowly sift THS in small increments while maintaining high shear. Avoid dumping to prevent clumping or incomplete dispersion.
5. Maintain 85–90 °C and continue high shear mixing for 10–15 minutes to ensure full dispersion and activation of the THS.
6. Reduce to moderate mixing and begin controlled cooling to approximately 70 °C and pour into final containers.
7. Allow to cool to room temperature and let cure for 24 hours prior to evaluation.

Properties

Pending data collection.

Notes

For DIY purposes, adequately high shear can be achieved using a simple milk frother. Any standard tea strainer should be adequate for sifting the THS.