

**Formula Name : Tinted Sun Balm**

Lot.No.51-HCS-101

(NIKKOL Zinc-Glycine Complex: 1.0%)



<https://www.chemical-navi.com/>

| INCI NAME   | TRADE NAME                  | ROLE/FEATURE                           | SUPPLIER  | wt%      |
|---|-----------------------------|--|---|----------|
| <b>A</b>  |                             |  |   |          |
| Disteardimonium Hectorite, PEG-10 Dimethicone, Dimethicone  | NIKKOL Nikkomulse WO-CF     | Emulsifier                             | NIKKO CHEMICALS   | 3.5000   |
| Sorbitan Sesquiosostearate  | NIKKOL SI-15RV              | Emulsifier                             | NIKKO CHEMICALS   | 1.0000   |
| Isododecane   | Permethyl 99A               | Emollient agent                        | NIHON KOKEN KOGYO   | 4.0000   |
| Isopropyl Myristate   | NIKKOL IPM-EX               | Emollient agent                        | NIKKO CHEMICALS   | 11.5000  |
| <b>B</b>  |                             |  |   |          |
| Titanium Dioxide, Aluminum Hydroxide, Talc, Hydrogen Dimethicone  | FDP-C-WHITE3                | Inorganic pigment                      | Toshiki Pigment   | 8.7000   |
| Titanium Dioxide, Aluminum Hydroxide, Talc, Hydrogen Dimethicone, Iron Oxides   | FDP-C-RED3                  | Inorganic pigment                      | Toshiki Pigment   | 1.4500   |
| Titanium Dioxide, Aluminum Hydroxide, Talc, Hydrogen Dimethicone, Iron Oxides   | FDP-C-YELLOW3               | Inorganic pigment                      | Toshiki Pigment   | 2.9000   |
| Titanium Dioxide, Aluminum Hydroxide, Talc, Hydrogen Dimethicone, Iron Oxides   | FDP-C-BLACK3                | Inorganic pigment                      | Toshiki Pigment   | 1.4500   |
| Zinc Oxide, C12-15 Alkyl Benzoate, Polyhydroxystearic Acid, Triethoxycaprylylsilane   | TNP50ZSI                    | UV filter                              | KOBO Products   | 15.0000  |
| C12-15 Alkyl Benzoate, Titanium Dioxide, Alumina, Methicone, Polyhydroxystearic Acid  | TNP50T7                     | UV filter                              | KOBO Products   | 5.0000   |
| HDI/Trimethylol Hexyllactone Crosspolymer, Polymethylsilsesquioxane   | US-450                      | Functional powder                      | Toshiki Pigment   | 2.0000   |
| HDI/Trimethylol Hexyllactone Crosspolymer, Methyl Methacrylate Crosspolymer   | UP-812                      | Texturizer, Functional powder          | Toshiki Pigment   | 2.0000   |
| <b>C</b>  |                             |  |   |          |
| Diethylamino Hydroxybenzoyl Hexyl Benzoate  | Uvinul A Plus Granular      | UV filter                              | BASF  | 4.3000   |
| Ethylhexyl Methoxycinnamate   | Uvinul MC80                 | UV filter                              | BASF  | 6.1000   |
| Octocrylene   | Eusolex OCR                 | UV filter                              | MERCK   | 2.6000   |
| <b>D</b>  |                             |  |   |          |
| Glycerin  |                             | Moisturizer                            |   | 3.0000   |
| Zinc Glycinate  | NIKKOL Zinc-Glycine Complex | Brightening, Anti-wrinkle, Antioxidant | NIKKO CHEMICALS   | 1.0000   |
| Sodium Citrate  |                             | pH adjuster, Dissolving aid            |   | 0.6000   |
| Citric Acid   |                             | pH adjuster, Dissolving aid            |   | 0.1800   |
| Sodium Chloride   |                             | Stabilizer                             |   | 0.6000   |
| Phenoxyethanol  |                             | Antimicrobial agent                    |   | 0.4000   |
| Water   |                             |  |   | 12.7200  |
| <b>E</b>  |                             |  |   |          |
| Ceresin   | CERESIN #810                | Viscosity modifier                     | Nikko Rica  | 10.0000  |
|   |                             |  | Total   | 100.0000 |
| <b>Procedure</b>  |                             |  |   |          |
| 1. Disperse NIKKOL Nikkomulse WO-CF in A with disperser mixer until uniform.  |                             |  |   |          |
| 2. Heat C to 80°C and dissolve completely, and then cool it down to room temperature.   |                             |  |   |          |
| 3. Stir B and D separately until uniform at room temperature.   |                             |  |   |          |
| 4. While stirring A by disperser mixer, add B and C into A and mix until uniform.   |                             |  |   |          |
| 5. While stirring A-C by disperser mixer, add D into A-C gradually and emulsify for a certain period of time.                         |                             |  |   |          |
| 6. Remove air bubbles with vacuum pump.   |                             |  |   |          |
| 7. Heat A-D and E to 85°C separately and mix until uniform.   |                             |  |   |          |
| 8. Add E into A-D and mix until uniform.  |                             |  |   |          |
| 9. Heat the bulk to 85°C and fill it into a container, then leave to stand and solidify at room temperature or under cold conditions. |                             |  |   |          |
| <b>Physical Properties</b>  |                             |  | <b>Stability</b>  |          |
| Hardness: 40 ~ 80 g   |                             |  | • RT, 45°C, 5°C: Confirmed for 3 months<br>• 50°C, -5°C, Cycle (-5⇄45°C): Confirmed for 1 month |          |

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We do not guarantee the stability of the final products of formulations in this brochure though the stability was checked under certain conditions.

We do not guarantee the preservation property of this formulation as we have not checked it.

We do not guarantee that this formulation does not conflict with any patent.

It is users' responsibility to determine the suitability for their own use of the formulation.