

# Sunjin Sun Care

Sunscreens



## ZINC OXIDE

The Sunjin sun care product line offers both Nano and Non Nano ZnO versions. **SUNZNO-NAS** is Nano size ZnO which conforms to the SCCS requirements. **SUNZNO-SA** and **SUNZNO** are COSMOS Non Nano ZnO with an average particle size of 150 nanometers. Zinc Oxide provides "broad spectrum" sunblock protection in formulations. Dispersions of Zinc Oxide are also available.

## SPECIALTY SUNCARE INGREDIENTS

**Sunsil Tin50** is TiO<sub>2</sub> encapsulated in a silica bead to boost SPF, to provide ultimate transparency and ultra light texture in all sunscreen containing formulations. **Sunsil Tin50** is non nano and COSMOS. **Sunsil Tin50AS** is surface treated for ease of use.

**Hybrid AB** is Avobenzone in a PMMA bead to provide UV protection and improved sensory feel. **Hybrid AB** is a water dispersible UVA filter with improved photo-stability. Novel formulations such as sungels with UVA protection can be created using **Hybrid AB**.

## NON NANO TiO<sub>2</sub>

The **T-80 series** of Non Nano TiO<sub>2</sub> is produced by aggregation of Nano TiO<sub>2</sub> bound by an inorganic silica binder to form micro size granules. Typical particle size distribution is within the range of 364 to 988 nanometers, with an average size of 562 nanometers. The T-80 series is available in several surface treated versions for ease of use and versatility, including COSMOS versions. The T-80 series provides comparable UVB protection to 15 nanometer TiO<sub>2</sub> and better UVA protection than 40 nanometer ZnO. The T-80 series is recommended for use in all inorganic sunscreen formulations.

## NON NANO TiO<sub>2</sub> DISPERSIONS

T-80 Non Nano TiO<sub>2</sub> is available in pre-dispersed versions for ease of use and handling. The TiO<sub>2</sub> content is 48%. COSMOS versions include caprylic capric triglyceride or dicaprylyl carbonate dispersions.

## NANO TiO<sub>2</sub>

**TX-85** is Nano TiO<sub>2</sub> which conforms to the SCCS requirements. Average particle size is 30 nanometers. **TX-85** is recommended for use in formulations requiring high SPF values. **TX-85** can be used to create low viscosity formulations and offers good re-dispersibility for sprayable products. **TX-85AQ** is the water compatible version of **TX-85**.



 **Vantage**

SUNSCREENS

# SUNJIN Screens

PRODUCT	INCI NAME	PRODUCT APPLICATIONS				PARTICLE TYPE	PARTICLE SIZE	SURFACE TREAT- DISPERSION	CARRIER (SOL- PRODUCT
		SUN CARE	SKIN CARE	COLOR COSMETICS	COSMOS				
<b>NON NANO TiO2</b>									<b>NON NANO TiO2</b>
T-80	Titanium Dioxide (and) Silica	X	-	yes	non nano	nanometers	none	none	T-80
T-80AS	Titanium Dioxide (and) Silica (and) Triethoxy Caprylsilane	X	X	no	non nano	350 to 1000	Alkyl Silane	none	T-80AS
T-80JJ	Titanium Dioxide (and) Silica (and) Jojoba Esters	X	X	yes	non nano	350 to 1000	Jojoba Esters	no	T-80JJ
T-80LL	Titanium Dioxide (and) Silica (and) Lauryl Lysine	-	X	yes	non nano	350 to 1000	Lauryl Lysine	no	T-80LL
T-80SA	Titanium Dioxide (and) Silica (and) Stearic Acid	X	X	yes	non nano	350 to 1000	Stearic Acid	no	T-80SA
<b>NON NANO TiO2 DISPERSIONS</b>									<b>NON NANO TiO2 DISPERSIONS</b>
SF785-AB	Titanium Dioxide (and) Silica (and) Triethoxy Caprylsilane (and) C12-15 Alkyl Benzoate (and) Polyhydroxy Stearic Acid	X	X	no	non nano	-	Alkyl Silane	yes	SF785-AB
SF785-CCTG	Titanium Dioxide (and) Silica (and) Jojoba Esters (and) Caprylic/Capric Triglyceride (and) Polyhydroxy Stearic Acid	X	X	yes	non nano	-	Jojoba Esters	yes	SF785-CCTG
SF785-CC	Titanium Dioxide (and) Silica (and) Jojoba Esters (and) Dicaprylyl Carbonate (and) Polyhydroxy Stearic Acid	X	X	yes	non nano	-	Jojoba Esters	yes	SF785-CC
SF785-AQ	Titanium Dioxide (and) Silica (and) Water (and) Triethoxycaprylsilane (and) Dimethicone	X	X	no	non nano	-	Alkyl Silane	yes	SF785-AQ
<b>NANO TiO2</b>									<b>NANO TiO2</b>
TX-85	Titanium Dioxide (and) Silica (and) Dimethicone	X	X	no	nano	30	Dimethicone	no	TX-85
TX-85 AQ	Titanium Dioxide (and) Silica	X	X	no	nano	30	none	no	TX-85 AQ
<b>NANO TiO2 DISPERSIONS</b>									<b>NANO TiO2 DISPERSIONS</b>
TPD40-AB	Titanium Dioxide (and) C12-15 Alkyl Benzoate (and) Polyhydroxy Stearic Acid (and) Alumina (and) Aluminium Stearate	X	X	no	nano	-	none	yes	TPD40-AB
TXD55-AQ	Titanium Dioxide (and) Water (and) Silica (and) Dimethicone	X	X	no	nano	-	Dimethicone	yes	TXD55-AQ
<b>NON NANO ZNO</b>									<b>NON NANO ZNO</b>
SUNZNO-AS	Zinc Oxide (and) Triethoxycaprylsilane	X	X	no	non nano	105	Alkyl Silane	no	SUNZNO-AS
SUNZNO	Zinc Oxide	X	-	yes	non nano	150	none	no	SUNZNO
SUNZNO-SA	Zinc Oxide (and) Stearic Acid	X	X	yes	non nano	150	Stearic Acid	no	SUNZNO-SA
<b>NON NANO ZNO DISPERSIONS</b>									<b>NON NANO ZNO DISPERSIONS</b>
COSMOS-Z75	Zinc Oxide (and) Dicaprylyl Carbonate (and) Polyglyceryl-2-Dipolyhydroxystearate (and) Stearic Acid	X	X	yes	non nano	-	Stearic Acid	yes	COSMOS-Z75
<b>NANO ZNO</b>									<b>NANO ZNO</b>
SUNZNO-NAS	Zinc Oxide (and) Triethoxycaprylsilane	X	-	no	nano	30	Alkyl Silane	no	SUNZNO-NAS
<b>NANO ZNO DISPERSIONS</b>									<b>NANO ZNO DISPERSIONS</b>
SUNCLEAR-Z75AB	Zinc Oxide (and) C12-15 Alkyl Benzoate (and) Polyhydroxy Stearic Acid (and) Triethoxycaprylsilane	X	X	no	nano	-	Alkyl Silane	yes	SUNCLEAR-Z75AB
SUNCLEAR-Z65C5	Zinc Oxide (and) Coco-Caprylate/Caprate (and) Polyhydroxy Stearic Acid (and) Triethoxycaprylsilane	X	X	no	nano	-	Alkyl Silane	yes	SUNCLEAR-Z65C5
SUNCLEAR-Z75AQ5	Zinc Oxide (and) Water (and) Triethoxycaprylsilane (and) Disodium Stearyl Sulfosuccinate	X	X	no	nano	-	Alkyl Silane	yes	SUNCLEAR-Z75AQ5
<b>SPECIALTY INGREDIENTS</b>									<b>SPECIALTY INGREDIENTS</b>
SUNSIL-Tin50	Silica (and) Titanium Dioxide	X	X	yes	non nano	2-7 um	none	no	SUNSIL-Tin50
SUNSL-Tin50AS	Silica (and) Titanium Dioxide (and) Triethoxycaprylsilane	X	X	no	non nano	2-7 um	Alkyl Silane	no	SUNSL-Tin50AS
Hybrid AB	Polyethyl Methacrylate (and) Butyl Methoxydibenzoylmethane (Avobenzone)	X	X	no	non nano	5 um	none	no	Hybrid AB



## SUNSCREENS



# ADDING SUNJIN TO YOUR SUN PROTECTION PRODUCTS

## Non Nano TiO2

- Non Nano
- UVB protection as good as 15nm TiO2
- UVA protection better than 40nm ZnO
- COSMOS Versions
- No Alumina
- Good Photo-stability

## Nano TiO2

- High SPF
- Low viscosity for high SPF sprayable formulations
- Good re-dispersibility for low viscosity formulations
- Compatible with Avobenzone
- SCCS Conformity
- Water dispersible grade available

## TiO2 Dispersions

- High SPF
- Non Nano versions
- COSMOS versions
- Easy to use
- Easy to handle

## ZnO and Dispersions

- Broad spectrum sun protection
- High SPF
- SCCS Conformity
- Dispersions for ease of use and handling
- COSMOS Version

## Hybrid AB

- Water dispersible UVA filter
- Ultra-light Texture
- Improved photo-stability
- Minimized Skin Irritancy

## Sunsil Tin50

- Boosts SPF
- Reduces gloss
- Ultimate transparency
- Ultra-light texture
- Non Nano & COSMOS
- Thickener Compatibility

