

## Technical Information

**Tinosorb® A2B**

PRD 30478125

Valid since 12.03.2019  
Revision 1.2

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**Care Chemicals****UV Filter****INCI name(s)**

Tris-Biphenyl Triazine [nano] (and) Aqua (and) Decyl Glucoside (and) Disodium Phosphate (and) Butylene Glycol (and) Xanthan Gum

**Chemical description**

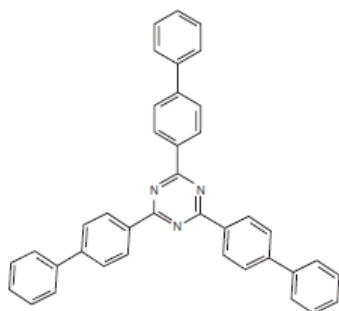
Aqueous dispersion of 1,3,5-Triazine, 2,4,6-tris([1,1'-biphenyl]-4-yl)- and Alkylpolyglucoside and Disodium Phosphate and Butylene Glycol and Xanthan Gum

**Physical form:**

White to distinctly beige liquid

**Molecular weight**

538 g/mol

**Molecular Formula**C<sub>39</sub>H<sub>27</sub>N<sub>3</sub>**Structural Formula****CASR-No.**

31274-51-8

68515-73-1

110615-47-9

7558-79-4

107-88-0

11138-66-2

**Ingredient**

Tris-Biphenyl Triazine

Alkylpolyglucoside

Alkylpolyglucoside

Disodium Phosphate

Butylene Glycol

Xanthan Gum

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### Application

Tinosorb® A2B is the highest performing UVB filter and belongs to the BASF's unique "particulate organic UV absorber" technology. The microfine dispersion shows the strongest contribution to SPF and thanks to its second absorbance maximum in the UVA2 range, bridging the "UVA2 gap" it also provides strong protection against UVA. Its absorbance properties and excellent photo-stability makes from Tinosorb® A2B the ideal filter for formulating high SPF sunscreen products that fulfil the COLIPA/ EC requirements for UVA Protection (UVA-PF  $\geq 1/3$ ). It is a perfect fit to our photostable UVA filter Uvinul® A Plus.

Moreover, Tinosorb® A2B boosts the performance of all oil soluble UV filters thanks to its scattering properties related to its particulate form.

It is compatible with all commonly used UV Filters and cosmetic raw materials. Tinosorb® A2B can be used in a wide range of emulsifier systems and is suitable for cold manufacturing/post emulsification. As a water-dispersible filter it increases formulation flexibility especially for high SPF formulations. Due to its high tolerance to different pH-values Tinosorb® A2B can also be used in self tanning products or formulations containing alpha hydroxy acids.

### Characteristic values

The specifications stated in the paragraphs 'Quality control data' and 'Additional product descriptive data' finally and conclusively describe the properties of the product.

#### Quality control data

(Data which is used for quality release and is certified for each batch.)

Test property	Specification	Test method
Appearance	Viscous dispersion	TS_A2B_App_Colour
Product color	White to distinctly beige dispersion	TS_A2B_App_Colour
pH	10.5 - 12.0	TS_A2B_pH
Absorbance (5 mg/l, TMU, Mesitylene, Dioxane, 316 nm, 10 mm)	0.442 - 0.498	TS_A2B_ACTSUB
Absorbance (1 % dil./1 cm)	885 - 998	TS_A2B_ACTSUB
Active substance	47 - 53 %	TS_A2B_ACTSUB
Viscosity (25 °C; Haake/MVDIN; D = 100 1/s)	200 - 1200 mPas	TS_A2B_VISC
Dry content (1 g / 135 °C / 60 minutes)	55.0 - 62.0 %	TS_A2B_DryContent



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## Storage information

### Shelf life

24 months

### Storage temperature

Between 5 °C and + 40 °C

### Storage conditions

In original sealed containers and protected from moisture

### Additional information

Keep container tightly closed and in a cool place.

The packed product is destroyed at low temperatures or by frost.

To be mixed before using.

## Stabilising additives / Auxiliaries

### Preservatives

not present

### Antioxidants

not present

### Solvents

not present

### Others

Decyl Glucoside, Butylene Glycol, Xanthan Gum and Disodium Phosphate

## General information

### Raw material basis

Vegetable: (coconut / palm kernel oil)

Synthetic: (natural oil / gas)

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**Care Chemicals****Composition hints for finished product label****INCI Components****INCI Name (US/EU/CN)**

Tris-Biphenyl Triazine (nano) (EU)

Tris-Biphenyl Triazine (US, CN)

Decyl Glucoside

Butylene Glycol

Disodium Phosphate

Xanthan Gum

**Content**

47.0 - 53.0 %

47.0 - 53.0 %

6.5 - 8.5 %

0.2 - 0.6 %

0.2 - 0.6 %

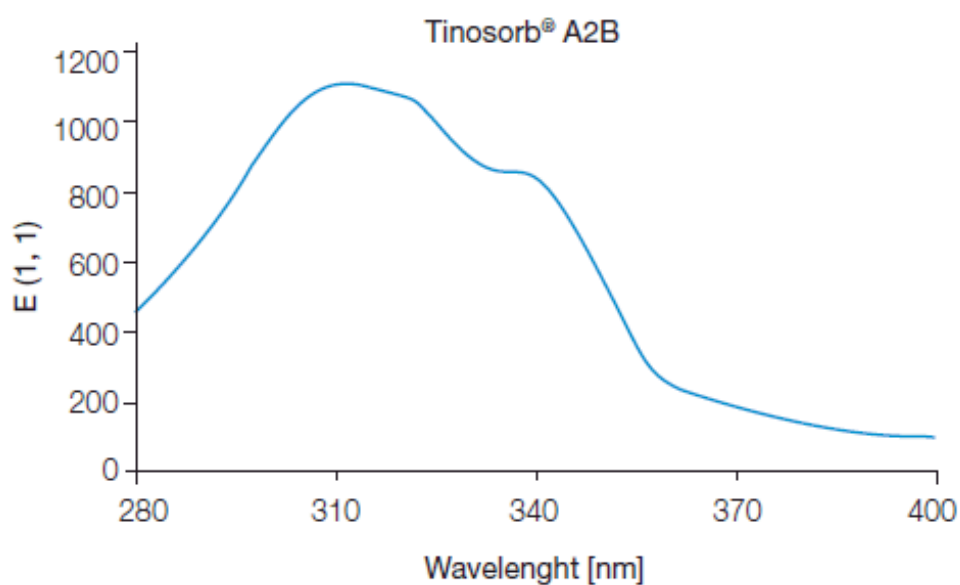
0.1 - 0.3 %

**Water Content****Content**

37.0 - 46.0 %

**Specific technical data**

UV spectrum





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## Approval status

Region	Amount in %
EU	10 (**)
Switzerland	10 (**)
India	-
Taiwan	-
Korea	-
Japan (*)	10 (**)
China	-
Australia	10 (**)
ASEAN	10 (**)
USA	-
Canada	-
S. America	10 (**)
Mexico	-

(\*) Japan: limit except for cosmetics coming into contact with mucous membranes

(\*\*) Amount in % as active ingredient

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