

# AakoSun PBSA

## Phenylbenzimidazole Sulfonic Acid

### Description

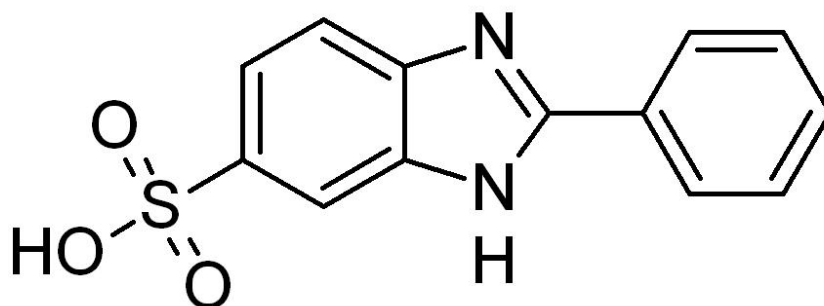
AakoSun PBSA is a water soluble UV B filter of which the solubility can be further improved by adding a base to the formulation i.e. NaOH or TEA. In formulations the pH-value need to be buffered around 6 - 7, because at lower pH levels precipitation could occur as a result of PBSA reverting to its acid form.

A significant SPF boost of O/W emulsions can be achieved by using water soluble AakoSun PBSA together with oil soluble UV filters i.e. AakoSun AVB and AakoSun OCR.

Additionally, usage of water soluble AakoSun PBSA instead of oily ingredients enables the production of formulations with a light skin feel and high SPF values.

See our guide formulations for inspiration.

▪ Chemical name	2-Phenyl-1H-benzimidazole-5-sulfonic acid
▪ INCI/USAN name	Phenylbenzimidazole Sulfonic Acid/ Ensulizole
▪ CAS number	27503-81-7
▪ Formula	C <sub>13</sub> H <sub>10</sub> N <sub>2</sub> O <sub>3</sub> S MW 274.3 g/mol
▪ UV B absorber	Water soluble powder after neutralisation with base



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### Typical properties

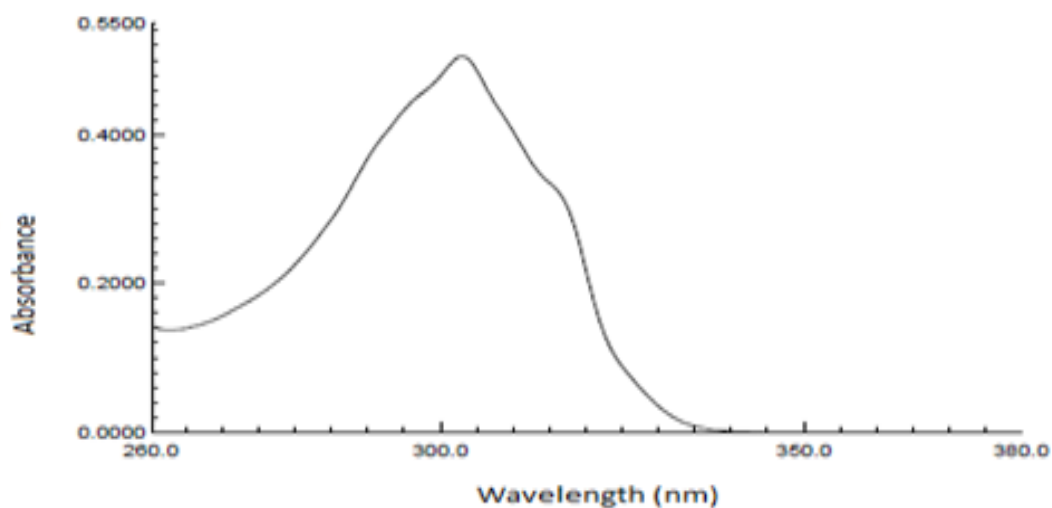
Appearance	White to off white powder
Assay	≥ 98 %
Specific Extinction (E <sub>302</sub> nm 1%, 1cm as sodium salt in water)	≥ 920
Loss on drying	≤ 2.0% w/w (at 105°C for 4h)

### Regulatory Status:

EU 8% Max. expressed as acid  
Regulation (EC) No 1223/2009 Annex VI entry 6

### Storage:

Must be stored in closed containers in dry cool conditions. Minimum shelf life of 2 years under appropriate conditions of storage.



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