Sustainable Innovation for a Better Future

PowerSorb™ 460 UV Absorber

Introduction

PowerSorb™ 460 is a UV light absorber of the hydroxyphenyl-triazine class. Due to its extremely high extinction, it provides outstanding protection to coatings and light sensitive substrates and materials. It is therefore especially suited for use in silver halide photographic papers or overprint varnishes.

Chemical Name

5-butoxy-2-[4-(4-butoxy-2-hydroxyphenyl)-6-(2,4-dibutoxyphenyl)-1,3,5-triazin-2-yl]phenol

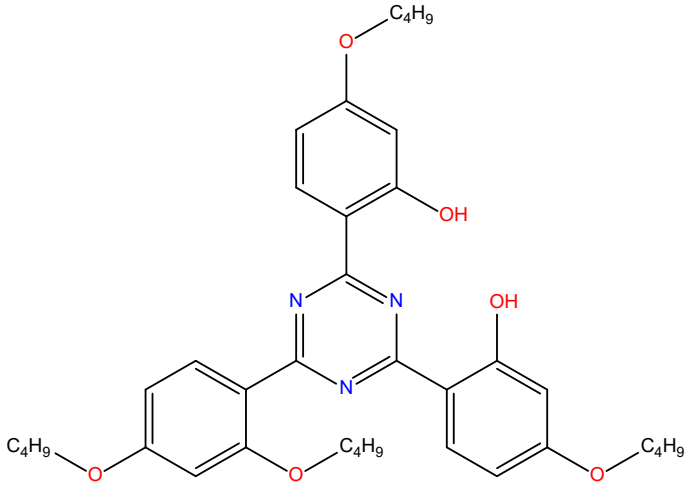
CAS Number

208343-47-9

EINECS Number

434-080-7

Chemical Structure



Chemical Formula

$C_{37}H_{47}N_3O_6$

Molecular Weight

629

Physical Properties

Appearance	Slightly yellow powder
Melting Point (°C)	93-102

PowerSorb™ 460 UV Absorber

Solubility

Solubility [20°C]	g/100 g solution
Butanol	not soluble
Ethyl acetate	3.2
Butyl acetate	4.3
Ethylglycol	not soluble
Methoxypropylacetate	1.9
Methylethylketone	5.7
Water	<0.01

Benefits & Applications

The key features and benefits of PowerSorb™ 460 contains:
- Solid hydroxyphenyl-triazine UVA;
- Extremely high extinction in the UV-A region enables photoprotection of thin films;
- Excellent photopermanence;
- Low color.

PowerSorb™ 460 is a UV light absorber of the hydroxyphenyl-triazine class. Since its absorption spectrum does not tail significantly into the visible region, it is an ideal UV absorber for those systems where initial yellowing must be kept to a minimum.

PowerSorb™ 460 is recommended for use in:
- Silver halide photographic materials such as color negative papers;
- Overprint varnishes for commercial, publication, or packaging applications;
- Industrial coatings;
- Trade sale paints such as wood stains or do-it-yourself paints.

In photographic applications, PowerSorb™ 460 can be combined with other UV absorbers, such as PowerSorb™ 460, to achieve desired absorption characteristics.

In silver halide color negative papers, it is particularly useful for protecting the dyes and couplers from harmful UV light.
The product can also be used in other reprographic applications in which a UV filter is needed e.g., in non-silver imaging color hardcopy.

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The amount of PowerSorb™ 460 required for optimum performance should be determined in laboratory trials covering a concentration range.

Recommend Concentrations:

0.5 – 3% PowerSorb™ 460
+
0.5 – 2.0 % PowerSorb™ 123, PowerNox™ 1425 or PowerStab™ 292

Handling & Safety

In accordance with good industrial practice, handle with care and avoid unnecessary personal contact. Avoid continuous or repetitive breathing of dust. Use only with adequate ventilation. Protect skin. Avoid dust formation and ignition sources.

This product may be stored up to one year in a sealed container. Containers should be stored in a cool, dry area. Extended storage at elevated temperatures or exposure to direct heat or sunlight could reduce product life. Keep containers sealed when not in use.

For more detailed information please refer to the material safety data sheet.

Packing

PowerSorb™ 460 is supplied in 20Kg PE Bag.

Note

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

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