

# PowerSorb™ 479 UV Absorber

## Introduction

PowerSorb™ 479 is a hydroxyphenyl-triazine (HPT) UV absorber designed to fulfill the high performance and durability needs for automotive and industrial finishes.

## Chemical Name

Isooctyl 2-[4-[4,6-bis[(1,1'-biphenyl)-4-yl]-1,3,5-triazin-2-yl]-3-hydroxyphenoxy]propanoate

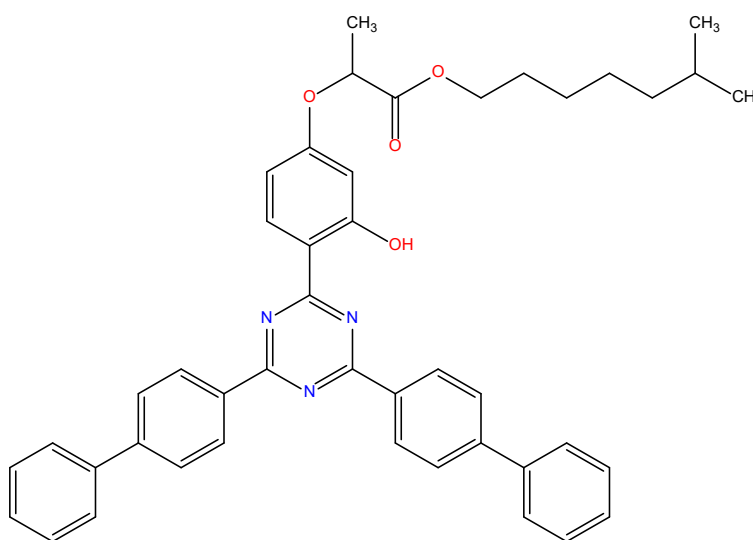
## CAS Number

204848-45-3

## EINECS Number

444-090-3

## Chemical Structure



## Chemical Formula

C<sub>44</sub>H<sub>43</sub>N<sub>3</sub>O<sub>4</sub>

## Molecular Weight

677.84

## Physical Properties

Appearance	light yellow crystalline powder
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## Solubility

Solubility [20°C]	g/100 g solution
butyldiglycol	2
butanol	<1
butyl acetate	17

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butylglycol acetate	12
methoxypropl acetate	10
methoxypropanol	1
Solvesso 100	23
Solvesso 150	10
water	<0.01

### Benefits & Applications

The key features and benefits of PowerSorb™ 479 contains:

- Extremely high extinction coefficient in the UV-B and UV-A range;
- Low volatility/low migration;
- Excellent photo-permanence.

PowerSorb™ 479 is an hydroxyphenyl-triazine UV absorber that provides excellent performance in coatings due to:

- Extremely high extinction coefficient;
- Very high photostability for long life performance;
- Very high thermal stability and performance for coatings exposed to high bake cycles and / extreme environmental conditions;
- Very low volatility;
- Excellent performance in thin film applications;
- Ideal spectral coverage in combination with other UV absorbers.

PowerSorb™ 479 has been developed as an interaction-free UV absorber to be used in amine and / or metal catalyzed coating systems or in coatings applied on base coats containing such catalysts.

Its high extinction coefficient allows the formulation of coatings with reduced UV absorber levels and / or thin film applications. Combinations especially with other HPT UV absorbers and the newest generation photoinitiators makes it an excellent choice for UV curable coatings.

PowerSorb™ 479 is recommended for automotive OEM and refinish systems, UV cured coatings, and industrial finishes where long life performance is essential. Due to the high extinction coefficient and superior photostability, applications specifically include thin film applications. Depending on the application, the spectral coverage can be further

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broadened through combinations with other UV absorbers of the hydroxyphenyl-triazine or hydroxyphenyl-benzotriazole class such as PowerSorb™ 400 or PowerSorb™ 928.

The protective effects of PowerSorb™ 479 can be enhanced when used in combination with hindered amine light stabilizers (HALS) such as PowerSorb™ 123, PowerSorb™ 292, or PowerSorb™ 152. These combinations provide best protection against gloss reduction, cracking, blistering, delamination, and color change. The light stabilizers may be added to clear coats, base coats, or solid shades.

For outdoor applications, the performance provided by PowerSorb™ 479 is enhanced when used in combination with HALS stabilizers such as PowerSorb™ 123, PowerNox™ 1425 or PowerSorb™ 292.

The amount of PowerSorb™ 479 required for optimum performance should be determined in laboratory trials covering a concentration range.

### Recommended concentrations:

0.5 – 2 % PowerSorb™ 479 (or PowerSorb™ 479 + PowerSorb™ 400, weight ratio 1:2, or PowerSorb™ 479 + PowerSorb™ 928, weight ratio 1:2)  
+  
0.5 – 2 % PowerSorb™ 123 or PowerSorb™ 292 or PowerSorb™ 152

### 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.

## **PowerSorb™ 479 UV Absorber**

**Packing**

PowerSorb™ 479 is supplied in 20Kg 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.

We specifically disclaim any other express or implied warranty of fitness for a particular purpose or merchantability.

We disclaim liability for any incidental or consequential damages.