Eversorb® 80

Benzotriazole type UV absorber for coating applications

Introduction
Eversorb® 80 is a liquid high performance UV absorber with very high thermal stability, the product is miscible with all common solvents but also easily incorporated into water borne systems.

Chemical Name

\[ \alpha-[3-[3-(2H-Benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl] -1-oxopropyl]-\omega-hydroxypoly(\text{oxo-1,2-ethanedi}y)l \ ; \]
\[ \alpha-[3-[3-(2H-Benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl] -1-oxopropyl]-\omega- [3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]poly(\text{oxy-1,2-ethanedi}y)l] ; \]
Polyethyleneglycol 300

Chemical Structure

\[
\text{N} \quad \text{N} \\
\text{N} \quad \text{O} \\
\text{H} \\
\text{C} \quad \text{H}_2 \\
\text{C} \quad \text{H}_2 \\
\text{C} \quad \text{O} \\
(\text{OCH}_2 \text{CH}_2)_{6,7} \text{OH} \\
\text{N} \quad \text{N} \\
\text{N} \quad \text{O} \\
\text{H} \\
\text{C} \quad \text{H}_2 \\
\text{C} \quad \text{H}_2 \\
\text{C} \quad \text{C}_2 \quad \text{O} \\
\text{C}_2 \quad (\text{OCH}_2 \text{CH}_2)_{6,7} \text{OH} \\
+\text{PEG300}
\]

(CAS number) 104810-48-2 ; 104810-47-1 ; 25322-68-3
Physical Properties

**Appearance**
Yellow to light brown liquid

**Dynamic Viscosity at 20°C**
7300-8000 mPa.s

**Density at 20°C**
1.17 g/cm³

**Solubility at 25°C (g/100g solvent)**
- Butylcarbitol : >50
- Butyl acetate : >50
- Xylene : >50
- 1-Methoxy-2-propylacetate : >50
- MEK : >50
- Water : < 0.1

**UV-Vis. Spectrum**
λmax. = 343nm & 303nm (20ppm in THF)

![UV-Vis. Spectrum Graph]

**TGA scans**
5% weight loss : 284°C (Ramp : 10.0°C/min to 800°C)

![TGA scans Graph]
Advantages

Readily soluble in a wide range of polar and non-polar organic solvents.
Easily emulsified in water.

Recommendation

Eversorb® 80 is particularly recommended for industrial, automotive, wood, plastics and urethane coatings.

Handling & Safety

Personal equipment for protection is recommended. Excess exposure to the product should be avoided. Wash thoroughly after handling.

Storage Conditions

Eversorb® 80 should be kept in a dry, dark place without any light exposure.