

LIGHT STABILIZER

CHISORB[®] 770

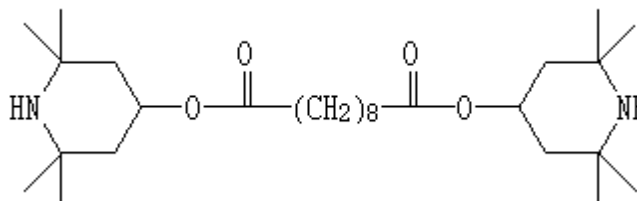
Ultraviolet light stabilizer for plastics and rubbers

General

Chisorb[®] 770 is the first commercially available light stabilizer belonging to the class of hindered amine light stabilizers. It provides outstanding light stability to many polymers and, in addition, gives long-term heat stability to polymers by radical trapping mechanism similar to that of hinder phenol. Its effectiveness can be greatly enhanced by co-addition of other UV absorbers or nickel-containing stabilizers.

Properties

Structure:



Chemical Name : Bis(2,2,6,6-Tetramethyl-4-piperidyl) sebacate
 CAS No. : 52829-07-9
 Molecular Formula : C₂₈H₅₂N₂O₄
 Molecular Weight : 480.7

Physical Data

Appearance : White crystalline powder or white granule
 Odor : Odorless
 Melting point : 80 - 86 °C
 Specific gravity : 1.05 @ 20 °C
 Vapor pressure : 1.3 x 10⁻⁸ Pa

Solubility

(g in 100 ml solvent)
 Acetone : 19
 Dichloromethane : 56
 Hexane : 5
 Methanol : 38
 Styrene : 39
 Acetic acid ethylester : 24
 Water : Nil

Typical Analysis

Appearance : White crystalline powder or white granule
 Assay : 99 % min.
 Melting point : 80 – 86°C
 Volatiles : 0.5 % max.
 Ash : 0.1 % max.
 Transmittance : 97 % @ 425 nm
 : 98 % @ 500 nm

Application

Chisorb[®] 770 is suitable for those applications which demand particularly high stability for such polymers as PP, HDPE, EPDM, PS, ABS, SAN and PU. It is also effective in polyamides and polyacetals.
 In contrast to UV absorbers, Chisorb[®] 770 effectiveness is independent of the

polymer's thickness. For this reason, Chisorb® 770 is particularly effective in articles with high specific surface such as coating, films and tapes.

A percentage of 0.2 % - 0.5 % of Chisorb® 770 is recommended for the purpose of light protection. If desired, it can be incorporated in monomer before polymerization, often with improvement of resin quality.

Light stability of polymer can be further enhanced by use of UV absorbers such as Chisorb® P or certain antioxidants such as Chinox® AO-76.

Storage

Must be stored in closed containers in dark dry conditions.

HS Code

2933 3900

DOUBLE BOND CHEMICAL

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