



Ciba[®] CHIMASSORB[®] 81

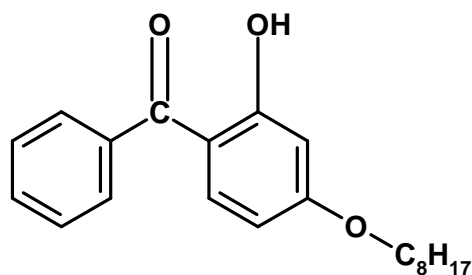
Benzophenone UV Absorber

Characterization CHIMASSORB 81 is an ultraviolet light absorber (UVA) of the benzophenone class, imparting good light stability when used in combination with a HALS of the CHIMASSORB or TINUVIN[®] range. It shows good compatibility with Polyolefins and plasticized PVC.

Chemical name Methanone, [2-hydroxy-4-(octyloxy)phenyl]phenyl,-

CAS number 1843-05-6

Structure CHIMASSORB 81



Molecular weight 326.4 g/mol

Applications The main application of CHIMASSORB 81 is in combination with a HALS for the light stabilization of low density and linear low density polyethylene as well as ethylene-vinyl acetate copolymers for agricultural films. It can be used as well as a UV barrier to protect the contents of packages for both industrial and consumer applications. Also, in combination with HALS CHIMASSORB 81 can be used in high density polyethylene molded articles e.g. in crates.

CHIMASSORB 81 also protects a number of other polymers against degradation caused by light exposure such as plasticized PVC and rubbers.

CHIMASSORB 81 can be used in combination with antioxidants, phosphites and light stabilizers.

Features/benefits CHIMASSORB 81 is particularly suitable for thick films, typically > 100 µm and thick sections. The low vapor pressure of CHIMASSORB 81 prevents losses during processing. Low migration rates reduce the danger of blooming.

Product forms	<i>Code:</i>	CHIMASSORB 81	CHIMASSORB 81 FL
	<i>Appearance:</i>	Slightly yellow powder	Slightly yellow flakes
Guidelines for use	Thick Sections:	UV stabilization of PE	0.15-0.5%
	Films	UV stabilization of LLDPE, LDPE and EVA	0.15-0.7%

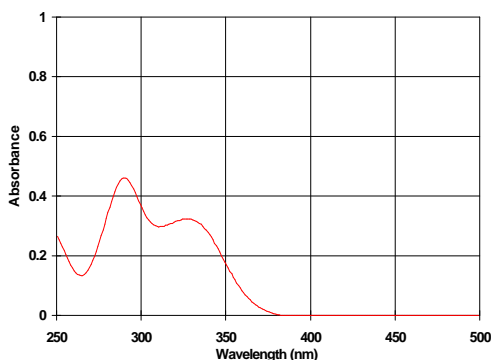
Physical Properties

<i>Melting Range</i>	47-49 °C
<i>Flashpoint</i>	> 200 °C DIN 51758
<i>Density (20 °C)</i>	1.16 g/cm ³
<i>Vapor Pressure (20 °C)</i>	4.6 E-6 Pa
<i>Bulk density</i>	
CHIMASSORB 81	360 - 440 g/l
CHIMASSORB 81 FL	440 - 540 g/l

Solubility (20 °C)	% w/w
<i>Acetone</i>	43
<i>Chloroform</i>	61
<i>Ethanol</i>	3.5
<i>Ethyl acetate</i>	44
<i>n-Hexane</i>	12
<i>Methanol</i>	1.7
<i>Methylene chloride</i>	67
<i>Toluene</i>	>50
<i>Water</i>	< 0.01

Volatility	Pure substance; TGA-data, heating rate 20 °C/min in air
<i>Weight Loss (%)</i>	<i>Temperature °C</i>
0.8	200
2.1	225
6.4	250
19.5	275
54.1	300

Absorption Spectrum (10 mg/l, Chloroform)



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.

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

Registration

CHIMASSORB 81 is listed on the following inventories:

Australia:	AICS (free to market)
Canada:	DSL (free to market)
China:	Existing Chemical Substances (free to market)
Europe:	EINECS (free to market)
Japan:	ENCS (free to market)
Korea:	ECL (free to market)
Philippines:	PICCS (free to market)
Switzerland:	EINECS (free to market)
USA:	TSCA (free to market)

CHIMASSORB 81 is approved in many countries for use in food contact applications.

For detailed information refer to our Positive List or contact your local sales office.

IMPORTANT: The following supersedes Buyer's documents.

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