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# Chimassorb® 2020

## Block oligomeric hindered amine light stabilizer

### Characterization

Chimassorb 2020 is a high molecular weight hindered amine light stabilizer (HALS). It shows excellent polymer compatibility and high extraction resistance.

One of the unique features of Chimassorb 2020 is a very narrow molecular weight distribution, resulting in a consistent performance in use and processing.

Chimassorb 2020 combines the typical benefits of a variety of high molecular weight HALS. It provides superior light/thermal stability to polymers and improved ancillary properties like improved polymer processing.

### Chemical name

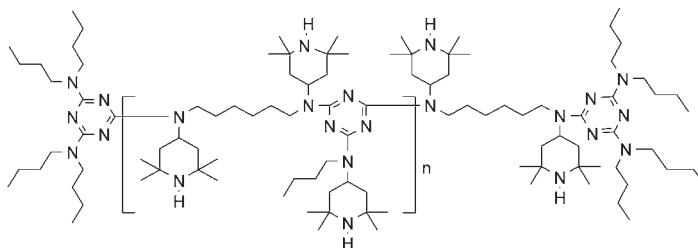
1,6-Hexanediamine, N,N'-bis(2,2,6,6-tetramethyl-4-piperidinyl)-polymer with 2,4,6-trichloro-1,3,5-triazine, reaction products with N-butyl-1-butanamine and N-butyl-2,2,6,6-tetramethyl-4-piperidinamine

### CAS number

192268-64-7

### Structure

Chimassorb 2020



### Molecular weight

2600–3400 g/mol

### Applications

Chimassorb 2020 is a highly effective light stabilizer for polyolefins (PP, PE), olefin copolymers such as EVA as well as blends of polypropylene with elastomers.

In addition, in certain instances Chimassorb 2020 is highly effective in polyacetals, polyamides, polyurethanes, flexible and rigid PVC, as well as PVC blends and in certain styrenic elastomer and specialty adhesive applications.

**Features/benefits**

Chimassorb 2020 offers an optimal combination of exceptional levels of UV- and long-term thermal stability, and ancillary properties such as minimal pigment interaction and improved melt flow control. It provides excellent UV stability to PP fibers, PP tapes, PE films, thick articles of PP and PE. Furthermore, it imparts unique long-term thermal protection to PP filled articles and carbon black filled systems. Chimassorb 2020 is highly effective as a long-term thermal stabilizer in thin and thick articles and shows high extraction resistance.

**Product forms**

Code: Chimassorb 2020 FDL  
Appearance: slightly yellow granules

**Guidelines for use**

Fibers:	UV and thermal stabilization of PP	0.1–1.4 %
Tapes:	UV and thermal stabilization of PP and HDPE	0.1–0.8 %
Thick sections*:	UV and thermal stabilization of PP, HDPE, LDPE and LLDPE	0.05–1.0 %
Films*:	UV and thermal stabilization of LDPE, LLDPE, EVA and EBA	0.1–1.0 %

*\* The presence of a UV absorber (e. g. Tinuvin® 326/328 or Chimassorb 81) is recommended for unpigmented or slightly pigmented articles or to improve the light fastness of certain organic pigments.*

**Physical properties**

Melting range	120–150 °C
Flashpoint	not tested
Specific gravity (20 °C)	1.01 g/cm <sup>3</sup>
Vapor pressure (20 °C)	7 E-10 Pa (extrapolated)

<b>Solubility (20 °C)</b>	<b>% w/w</b>
Water	< 0.0001
n-Hexane	> 50
Tetrahydrofurane	> 15
Dichloromethane	> 15
Ethanol/Water 95/5	> 2.5
n-Octanol	> 1.0
Isopropanol	> 0.2

<b>Volatility</b>	<b>Pure substance; TGA-data, heating rate 10 °C/min in air</b>
Weight loss %	Temperature °C
0.7	250
0.8	275
1.1	300
1.7	325
3.6	350

**Handling & Safety**

Chimassorb 2020 requires no special safety measures, provided the usual precautions for handling chemicals are observed.

Avoid dust formation and ignition sources. For more detailed information please refer to the material safety data sheet.

**Note**

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November 2010