

# Chimassorb<sup>®</sup> 119 FL

## Monomeric Hindered Amine Light Stabilizer (HALS)

November 2019 | Data Sheet | First Edition

T/IEVF 1036 e / Page 1 of 3

® = registered trademark of BASF SE

### Characterization

Chimassorb<sup>®</sup> 119 FL is a monomeric, sterically hindered amine light stabilizer. The main advantage of Chimassorb<sup>®</sup> 119 FL over other commercial HALS results from its piperidyl-methyl group which reduces some chemical interactions and discoloration. Due to its high molecular weight, it provides good polymer bulk protection, has low tendency to migrate and shows low volatility. Chimassorb<sup>®</sup> 119 FL contributes significantly to the long-term heat stability of polyolefins.

### Chemical name

1,3,5-Triazine-2,4,6-triamine, N, N''- [1,2-ethane-diyl-bis [ [4,6-bis- [butyl (1,2,2,6,6-pentamethyl-4-piperidiny] amino] -1,3,5-triazine-2-yl] imino] -3,1-propanediyl]] bis [N', N''- dibutyl-N', N''-bis(1,2,2,6,6-pentamethyl-4-piperidiny] -

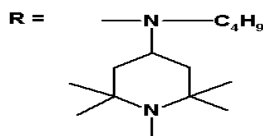
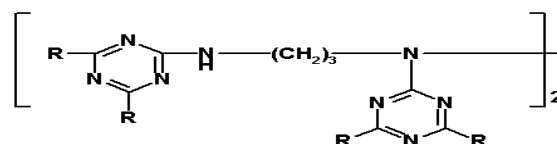
### CAS number

Preparation 106990-43-6

### Structure

Chimassorb<sup>®</sup> 119 FL

RNH (CH<sub>2</sub>)<sub>3</sub> NR (CH<sub>2</sub>)<sub>2</sub> NR (CH<sub>2</sub>)<sub>3</sub> NHR



### Molecular weight

2300 g/mol

### Applications

Chimassorb<sup>®</sup> 119 FL is particularly effective in polypropylene, polyethylene, alpha-olefin copolymers and blends with EPR, EPDM, ERR, PE, EVA, EAA, EVOH and filled PP. It can be used in elastomers, e.g. EPDM, SBS, SIS, SEBS, styrenics and a-methyl styrenics, e.g. ABS, SAN, AES, ASA, IPS, SMA blends or alloys of these polymers with others, adhesives, hot melts, flexible and rigid PVC, PVDC, polyurethanes, polyamides, e.g. PA 6, PA 6,6, PA 12, POM (homo and copolymers), PPE, PET, PBT and blends PMMA cast sheets and thermoplastic resins, UPE, PET and PA fibers.

**Features/benefits** Chimassorb® 119 FL shows excellent long-term thermal stability to temperatures up to 150°C, improved resistance to chemical attack and improvement in color stability. Combined with other HALS it gives rise to synergistic mixtures, e.g. Tinuvin® 111.

**Product forms**

Code	Chimassorb® 119 FL
Appearance	Slightly yellow granules

**Guidelines for use**

Thick sections	UV stabilization of PP	0.15 - 0.5%
	UV stabilization of ABS	0.25 - 0.50 %
Thin section	UV stabilization for PE films and Monofilaments	0.1 – 1%

**Physical Properties**

Melting range	115 – 150 °C
Flashpoint	278 °C ASTM D92 – 78
Density (20 °C)	1.03 g/cm <sup>3</sup>
Vapor pressure (20°C)	4.7 E-11 Pa
Bulk density	500 - 600 g/l

<b>Solubility (20°C)</b>	<b>%W/W</b>
Acetone	~ 2
Chloroform	20
Ethanol	5
Ethyl acetate	~ 1
n-Hexane	~ 1
Methanol	~ 1
Methylene chloride	20
Toluene	25
Water	< 0.01

<b>Volatility</b>	<b>TGA on pure substance; heating rate 20°C/min in air</b>
Temperature (°C)	Weight loss (%)
200	0.7
250	1.1
300	2.7

**Handling & Safety** Detailed information on handling and any precautions to be observed in the use of the product(s) described in this leaflet can be found in our relevant safety data sheet.

**Note** The descriptions, designs, data and information contained herein are presented in good faith and are based on BASF's current knowledge and experience. They are provided for guidance only, and do not constitute the agreed contractual quality of the product or a part of BASF's terms and conditions of sale.

Because many factors may affect processing or application/use of the product, BASF recommends that the reader carry out its own investigations and tests to determine the suitability of a product for its particular purpose prior to use. It is the responsibility of the recipient of product to ensure that any proprietary rights and existing laws and legislation are observed. No warranties of any kind, either expressed or implied, including, but not limited to, warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth herein, or that the products, descriptions, designs, data or information may be used without infringing the intellectual property rights of others. Any descriptions, designs, data and information given in this publication may change without prior information. The descriptions, designs, data and information furnished by BASF hereunder are given gratis and BASF assumes no obligation or liability for the descriptions, designs, data or information given or results obtained, all such being given and accepted at the reader's risk.

November 2019