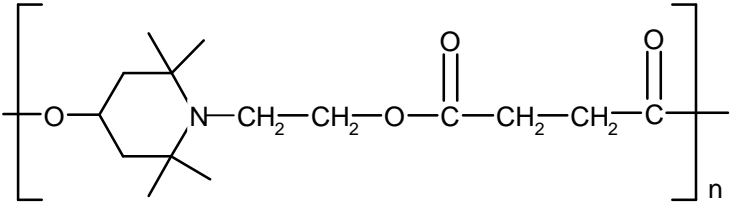


## Ciba<sup>®</sup> TINUVIN<sup>®</sup> 622

### Oligomeric Hindered Amine Light stabilizer (HALS)

<b>Characterization</b>	TINUVIN 622 is the light stabilizer of choice for all applications calling for low volatility and minimal migration, because of its oligomeric structure with high molecular weight. Furthermore TINUVIN 622 is effective as antioxidant and contributes significantly to the long- term heat stability of polyolefins and tackifier resins.		
<b>Chemical Name/ Composition</b>	Butanedioic acid, dimethylester, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidine ethanol		
<b>CAS Number</b>	65447-77-0		
<b>Structure</b>	TINUVIN 622 		
<b>Molecular weight</b>	$M_n = 3100-4000$		
<b>Applications</b>	TINUVIN 622 areas of application include polyolefins (PP, PE), olefin copolymers such as EVA as well as blends of polypropylene with elastomers. In addition TINUVIN 622 is highly effective in polyacetals, polyamides and polyurethane applications.		
<b>Features/Benefits</b>	The effectiveness of TINUVIN 622 surpasses significantly that of UV absorbers, particularly in pigmented systems. Combinations of TINUVIN 622 with UV absorbers, e.g. TINUVIN range or other HALS, e.g. CHIMASSORB range in many cases result in synergistic effects. Typical examples are TINUVIN 783 and TINUVIN 111		
<b>Product Forms</b>	<b>Code:</b> TINUVIN 622 FB TINUVIN 622 LD	<b>Appearance:</b> colorless to light yellowish granules coarse, white to slightly yellow powder	
<b>Guidelines for use</b>	<b>Thick sections*</b>	UV stabilization of HDPE, LLDPE, LDPE and PP	0.15-0.5%
	<b>Films</b>	UV stabilization of LDPE and LLDPE	0.1-1.2%
	<b>Tapes</b>	UV stabilization of HDPE and PP	0.2-0.8%
	<b>Fibers</b>	UV stabilization of PP fibers	0.1-1.0%
	* The presence of a UV absorber (e.g. TINUVIN 326/327/328 and CHIMASSORB 81) is recommended in unpigmented or slightly pigmented articles or to improve the light fastness of certain organic pigments.		

<b>Physical Properties</b>	Melting Range	50 - 70 °C
	Flashpoint	>250°C Cleveland
	Specific Gravity (20°C)	1.22 g/cm <sup>3</sup>
	Vapor Pressure (20°C)	2.5 E-6 Pa
	Bulk density	
	TINUVIN 622 FB	500 - 700 g/l
	TINUVIN 622 LD	300 - 500 g/l
	Solubility (20°C)	g/100g Solution
	Acetone	4.0
	Chloroform	> 40
	Ethanol	0.08
	Ethyl acetate	3.0
	n-Hexane	< 0.01
	Methanol	0.05
	Methylene chloride	> 40
Toluene	15	
Water	^ 1.6 mg/l	
	Volatility (pure substance; TGA-data, heating rate 20°C/min in air)	
	Temperature (°C)	% weight loss
	200	0.1
	225	0.2
	250	0.4
	275	1.1
	300	3.1
	325	8.4
<b>Handling &amp; Safety</b>	In accordance with good industrial practice, handle with care and prevent contamination of the environment. Avoid dust formation and ignition sources. For more detailed information please refer to the material safety data sheet	
<b>Registration</b>	TINUVIN 622 is listed on the following Inventories:	
	Australia: AICS	Canada: DSL
	Europe: Polymer, monomers on EINECS	China: Draft Inventory
	Korea: ECL	Japan: ENCS
		Philippines: PICCS
		USA: TSCA
	TINUVIN 622 is approved in many countries for use in food contact applications. For detailed information refer to our Positive Liste or contact your local sales office.	

**IMPORTANT:**

*The following supercedes Buyer's documents. **SELLERS MAKE NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** No statement herein is to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental consequential or indirect damages for alleged negligence, breach of warranty, strike liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sale liability for any claims shall be Buyer's purchase price. Data and results are based on controlled or lab-work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended, for uses for which implantation within the human body is intended.*