



Vermogenweg 3 tel.: 31 297 303118
3641 SR Mijdrecht fax: 31 20 5241356
The Netherlands email: sales@hunan-chem.com

www.hunan-chem.com

Trade registration nr. 50769421 Chamber of Commerce Utrecht

# **Technical Data Sheet**

Product name: UV-622

**Chemical name:** Butanedoic acid, dimethylester, polymer with 4-hydroxy-2,2,6,6-

tetramethyl-1-piperidine ethanol

**Synonym:** Poly-(N-β-hydroxyethyl-2,2,6,6-tetramethyl-4-hydroxy-

pperidylsuccinate).

Tinuvin@622

CAS No: 65447-77-0 EC No: 613-797-0 Molecular weight: Mn=3100-4000

Chemical structure:

**Quality norm:** technical grade

**Specification:** 

Appearance: White to buff coarse powder

Volatile (%): 0.5 max.
Ash (%): 0.1 max.
Molecular Weight 2500 min.

Light transmittance (%):

425 nm 98.0 min. 500 nm 99.0 min.

## Packing:

25kg net carton on pallets or as required. 500kgs per pallet wrapped and film shrunk. Loading capacity: 10mt per FCL.

### Characterization

UV-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 UV-622 is effective as antioxidant and contributes significantly to the long-term heat stability of polyolefins and tackifier resins.

#### **Applications**

UV-622 areas of application include polyolefins (PP, PE), olefin copolymers such as EVA as well as blends of polypropylene with elastomers.

In addition UV-622 is highly effective in polyacetals, polyamides and polyurethane applications.

## Features/Benefits

The effectiveness of UV-622 surpasses significantly that of UV absorbers, particularly in pigmented systems. Combinations of UV-622 with UV absorbers, e.g. UV range or other HALS range in many cases result in synergistic effects. Typical examples are UV-783.

## **Use Guide**

Thick sections*	UV stabilization of HDPE, LLDPE, LDPE and PP	0.15-05.%
Films	UV stabilization of LDPE and LLDPE	0.1-1.2%
Tapes	UV stabilization of HDPE and PP	0.2-0.8%
Fibers	UV stabilization of PP fibers	0.1-1.0%

<sup>\*</sup> The presence of a UV absorber (e.g. UV-326/327/328) is recommended in unpigmented or slightly pigmented articles or to improve the light fastness of certain organic pigments

## **Physical Properties**

Melting Range	50 - 70 °C
Flashpoint	>250 °C
Specific Gravity (20 °C)	1.22 g/cm3
Vapor Pressure (20 °C)	2.5 E-6 Pa

**Bulk density** 

UV-622 powder 500 - 700 g/l UV-622 granular 300 - 500 g/l

## Solubility (20°C) % w/w

Volatility	Duro cubo
Water	1.6 mg/l
Toluene	15
Methylene chloride	> 40
Methanole	0.05
n-Hexane	< 0.01
Ethyl acetate	3.0
Ethanole	0.08
Chloroforme	> 40
Acetone	4.0

Volatility	Pure substance; TGA,	heating rate 20 °C/min in air
------------	----------------------	-------------------------------

Weight Loss (%) Temperature °C

 0.1
 200

 0.2
 225

 0.4
 250

 1.1
 275

 3.1
 300

 8.4
 325

# **Handling & Safety**

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

## Registration

Australia AICS Canada DSL

China Draft Inventory

Europe Polymer, monomers on EINECS

Japan ENCS Korea ECL Philippines PICCS USA TSCA

### **Food contact**

UV-622 is approved in many countries for use in food contact applications

### **IMPORTANT:**

The following supersedes Buyer's documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are 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, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole 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 the intended conditions of use. The product(s) has (have) not been tested for, and is (are) therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.

Please note that products may differ from country to country. If you have any queries, please kindly contact us.