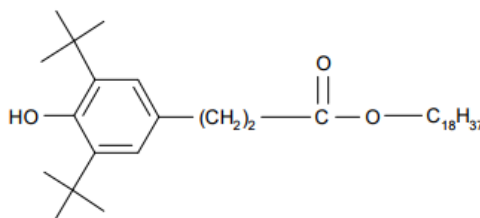


PUREstab 1076

Phenolic Primary Antioxidant for Processing and Long-Term Thermal Stabilization

Description **PUREstab 1076** is a sterically hindered phenolic antioxidant. It is a highly efficient and non-discolouring stabilizer for organic substrates such as plastics, synthetic fibres, elastomers, adhesives, waxes, oils and fats. It protects these substrates against thermo-oxidative degradation. **PUREstab 1076** is odorless, stable to light and has good compatibility with most substrates, low volatility and high resistance to extraction.

Chemical Structure



Chemical name Octadecyl-3-(3,5-di-tert-butyl-4-hydroxyphenyl)-propionate

CAS number 2082-79-3 **Molecular weight:** 531 g/mol

Features & benefits **PUREstab 1076** can be used in combination with other additives such as co-stabilizers, e.g. thioethers (long term heat stabilizers), phosphites, phosphonites (secondary antioxidant), light stabilizers and other functional stabilizers. It is of particular interest to mention the enhanced effectiveness obtained by combining **PUREstab 1076** with PUREfos 168.

Application At concentrations of 0.05% - 0.2%, **PUREstab 1076** is providing long-term thermal stability to the polymer. In polyolefins the recommended concentration levels range between 0.1% and 0.4% depending on the matrix, processing conditions and long-term thermal stability requirements. For styrene homo- and copolymers it is ranging from 0.1 to 0.3%, in hot melt adhesives, from 0.2% to 1.0%, in synthetic tackifier resins, from 0.1% to 0.5%.

Guidelines for Use -

At concentrations of 0.05% - 0.2%, **PUREstab 1076** is providing long-term thermal stability to the polymer. Nevertheless, concentrations up to several percent may be suitable depending on the requirement of the end application and the substrate to be stabilized.

In polyolefins the recommended concentration levels of **PUREstab 1076** range between 0.1% and 0.4% depending on the matrix, processing conditions and long-term thermal stability requirements. The optimum level has to be determined depending on the application requirement.

TECHNICAL DATA SHEET

Polygel Product Management
Email: info@polygelbrunei.com



The concentration levels of **PUREstab 1076** recommended:

- for styrene homo- and copolymers is ranging from 0.1 to 0.3%
- in hot melt adhesives it is ranging from 0.2% to 1.0%,
- in synthetic tackifier resins it is ranging from 0.1% and 0.5%.

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

This product may be stored in a sealed container. Containers should be kept tightly closed when not in use and stored in a cool, dry place.

Physical Properties

Product form	White fine flowing powder		
Melting range	50-55°C		
Flashpoint	>270°C		
Vapor pressure (20°C)	2.5 E - 7 Pa		
Bulk density	Powder 500 - 650 g/l		
Solubility (20°C) g/100g solution	Solubility (20°C) g/100g solution		
- Acetone	19.0	- Benzene	57.0
- Chloroform	57.0	- Ethanol	1.5
- Ethyl-acetate	38.0	- N-hexane	32.0
- Methanol	0.6	- toluene	50.0
- Cyclohexane	49.0	- Water	<0.01

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November, 2019