We create chemistry

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Irganox® PS 800

Thiosynergist Heat Stabilizer

Characterization

Irganox PS 800 is a dialkyl ester of thiodipropionic acid. It is used as a heat stabilizer in combination with a phenolic antioxidant.

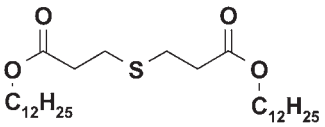
Chemical name

Didodecyl-3,3'-thiodipropionate

CAS number

123-28-4

Chemical formula



Molecular weight

515 g/mol

Applications

- Polymer materials requiring long-term thermal stability
- Polyethylene power cables
- XLPE power cables
- HDPE pipe
- Polypropylene
- Polyolefin under-hood automotive applications
- Styrene homo- and copolymers
- Adhesives

Features/benefits

Irganox PS 800 used in combination with a primary phenolic antioxidant provides general purpose heat stabilization. With the highest compatibility and lowest melting point of common thiosynergists, it is most easily incorporated into the final product. It is most widely used in combination with Irganox 1035 for peroxide cross-linked power cables.

Product forms

Irganox PS 800 FL	white crystalline flakes

Guidelines for use

In general Irganox PS 800 can be used to improve the long-term heat stability of polymers at recommended levels of 0.05 % – 1 %. In peroxide cross-linked power cables, 0.02 % – 0.03 % Irganox PS 800 in combination with 0.02 % – 0.03 % Irganox 1035.

Physical Properties

Melting range	39 – 41 °C
Flashpoint	219 °C
Density (25 °C)	1.04 g/ml
Vapor pressure (20 °C)	6.6 E-6 Pa
Bulk density	
FL	400 – 450 g/l

Solubility (20 °C)	**g/100 g solution**
Acetone	37
Chloroform	> 50
Ethanol	2.2
Ethyl acetate	33
n-Hexane	20
Water	0.001

Health & Safety

Irganox PS 800 exhibits a very low order of oral toxicity and does not present any abnormal problems in its handling or general use.

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 health and safety information sheet.

Note

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