

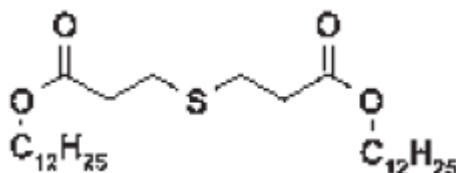
# Irganox<sup>®</sup> PS 800 FL

**Product Description** Irganox PS 800 FL is a dialkyl ester of thiodipropionic acid that is used as a thermal stabilizer in combination with a sterically hindered phenolic antioxidant.

**Key Features & Benefits**

- Long term heat stability
- Highest compatibility and lowest melting point of common thiosynergists

**Chemical Composition** Didodecyl-3,3'-thiodipropionate



## Properties

<b>Typical Properties</b>		
Appearance		white crystalline flake
CAS number		123-28-4
Molecular weight	g/mol	515
Melting range	°C	39 – 41
Flash point	°C	219
Vapor pressure at 20°C	Pa	6.6 E-6
Density at 25°C	g/ml	1.04
Density (bulk)	g/l	400 – 450

### Solubility at 20°C (g/100 g solution)

Acetone	37
Chloroform	> 50
Ethanol	2.2
Ethyl acetate	33
n-Hexane	20
Water	0.001

These typical values should not be interpreted as specifications.

## Application

Irganox PS 800 FL is used in combination with a primary sterically hindered phenolic antioxidant that provides general purpose heat stabilization to polymeric materials. It is most widely used in combination with Irganox 1035 for peroxide crosslinked power cables.

Irganox PS 800 FL is recommended for applications such as:

- Polymer materials
- Polyethylene power cables
- XLPE power cables
- HDPE pipe
- Polypropylene
- Polyolefin under-the-hood automotive applications
- Styrene homo- and co-polymers
- Adhesives

### **Processing**

With the highest compatibility and lowest melting point of common thiosynergists, Irganox PS 800 FL is most easily incorporated into the final product.

### **Recommended Concentrations**

The amount of Irganox PS 800 FL required for optimum performance should be determined in laboratory trials covering a concentration range. Concentrations up to several percent may be used depending on the substrate, processing conditions, requirements of the end application, and long term thermal stability requirements.

Typical usage levels range between 0.05 – 1%.

For peroxide crosslinked power cables, usage levels between 0.02 – 0.03% can be used in combination with 0.02 – 0.03% Irganox 1035.

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## **Safety**

### **General**

The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State, and Local health and safety regulations, thorough ventilation of the workplace, good skin care, and wearing of protective goggles.

### **Safety Data Sheet**

All safety information is provided in the Safety Data Sheet for Irganox PS 800 FL.

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## **Storage**

Please refer to the “Handling and Storage of Polymer Dispersions” brochure.

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## **Important**

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