

Industrial Coatings

Technical Data Sheet

Irganox[®] PS 800 FL



Product Description

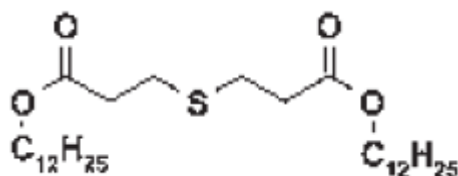
Irganox[®] PS 800 FL is a dialkyl ester of thiodipropionic acid that is used as a heat stabilizer in combination with a sterically hindered phenolic antioxidant.

Key Features & Benefits

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

Chemical Composition

Didodecyl-3,3'-thiodipropionate



Properties

Typical Characteristics

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

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.

Applications

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 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.

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.

Material Safety Data Sheet

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

Storage

Properly stored and protected, an unopened container of Irganox® PS 800 FL should have a shelf life of at least one year.

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