Ciba Specialty Chemicals

**Additives** 

Polymer Additives



## Ciba® IRGANOX® PS 802

## Thiosynergist Heat Stabilizer

Characterization	IRGANOX PS 802 is a dialkyl ester of thiodipropionic acid.	It is used as a heat stabilizer in
	combination with a phenolic antioxidant.	

**Chemical Name** Dioctadecyl 3,3'-thiodipropionate.

**CAS Number** 693-36-7

**IRGANOX PS 802** Structure

$$\begin{bmatrix} H_{37}C_{18} & O & C & CH_{2} & CH_{2} \\ \end{bmatrix}_{2}^{S}$$

Molecular weight 683

**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 802 used in combination with a primary phenolic antioxidant provides long-

term heat stabilization to polymeric materials. With the lowest volatility of all

thiosynergists, it combines excellent performance with low odor.

**Product Forms** Code: Appearance:

**IRGANOX PS 802 FL** white to slightly yellow flake

**Guidelines for use** In general IRGANOX PS 802 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.

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**Physical Properties** 

Melting Range 64-67°C

Flashpoint 257°C Markusson

Vapor Pressure (20°C) 6.6 E-6 Pa Bulk density (FL Form) 400-450 g/l

Solubility (20°C) g/100g Solution

Water < 0.01 Acetone 1 Chloroform 20 Ethanol 1.5 Ethyl acetate 1.7 n-Hexane 1.8 Methanol 1 Methylene chloride 13 Toluene 10

**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** IRGANOX PS 802 is listed on the following inventories:

Australia: AICS Canada: DSL Europe: EINECS

Japan: MITI Korea: ECL Philippines: PICCS

USA: TSCA

IRGANOX PS 802 is approved in many countries for use in food contact applications.

For detailed information refer to our Positive List or contact your local sales office.

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