

## Technical Information

**Tinogard® DA**

PRD 30517297

Valid since 16.01.2019  
Revision 1.2

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**Care Chemicals****Non-phenolic antioxidant to protect oils, fats and fragrances from autoxidative decomposition****INCI name(s)**

Dilauryl Thiodipropionate

**Chemical description**

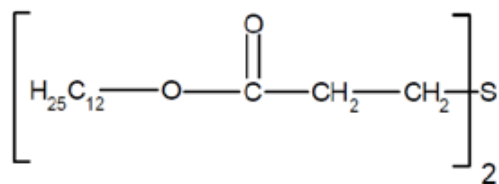
Didodecyl 3,3'-thiodipropionate

**Physical form:**

Solid, flakes

**Molecular weight**

515 g/mol

**Molecular Formula** $C_{30}H_{58}O_4S$ **Structural Formula****CASR-No.**

123-28-4

**Ingredient**

Didodecyl 3,3'-thiodipropionate

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**Care Chemicals****Characteristic values**

Specifications in the sections: 'Provisional quality control data' and 'Provisional additional product descriptive data' are not finalized and to be used for orientation purposes. A representative number of batches will be used for finalization at a later date.

**Provisional quality control data**

(Data which is used for quality release and is certified for each batch.)

Test property	Specification
Appearance	White to slightly yellowish flakes
Clarity of solution	Clear solution
Acid value	max. 3.0 mg KOH/g
Transmission at 425 nm	min. 97.0
Transmission at 500 nm	min. 98.0
Assay	min. 95.0 %

Specific methods used for batch release see Certificate of Analysis.

**Typical values**

(For information purposes only, not part of the guaranteed specifications.)

Property	Value
Melting Range	39 - 41 °C

**Storage information****Shelf life**

60 months

**Storage temperature**

Room temperature

**Storage conditions**

In original sealed containers and protected from moisture

**Additional information**

Store in a dry and cool place.

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**Care Chemicals****Stabilising additives / Auxiliaries****Preservatives**

not present

**Antioxidants**

not present

**Solvents**

not present

**Others**

not present

**General information****Raw material basis**

Petrochemical: (mineral oil / natural gas)

**Composition hints for finished product label****INCI Components****INCI Name (US/EU/CN)**

Dilauryl Thiodipropionate

**Content**

Complete \*

\* Complete means conclusively describes the substance

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**Care Chemicals****Product properties****Solubility**

Ethyl Acetate:	33 g
Isopropylmyristate:	14 g
Castor Oil:	1 g
Sunflower Oil:	3 g
Ethanol:	3 g
2-Propanol:	6 g
Water:	insoluble

Solubility (20°C) g/100g solution

**Miscellaneous information****Performance**

Tinogard® DA is an oil soluble non-phenolic antioxidant. It can be added to oils, perfumes and other organic materials, usually in combination with phenolic antioxidants like Tinogard® TT or Tinogard® TS at a ratio of 1:1. It may also be used as stand-alone antioxidant where appropriate.

It is recommended to predissolve the antioxidants in the most oxidation sensitive phase of a formulation (e.g. fragrance or oil/fat). Because of the insolubility in water a sufficient amount of solubilizing compounds is needed in aqueous formulations to avoid precipitation.

Tinogard® DA is non-discoloring, odorless, and of low volatility.

The product can also be used in combination with light stabilizers. Antioxidant concentrations of 0.01 to 0.10 % are usually sufficient to stabilize formulations against oxidative degradation. Optimal incorporation levels depend on the individual formulation, the packaging and long-term stability requirements.

**Example of use**

Tinogard® DA is a non-phenolic antioxidant for stabilization of oxidation sensitive formulations, ingredients and materials. It is a specialty antioxidant that has the ability to inactivate hydroperoxides, which are formed during oxidation. This mechanism works complementary to the radical scavenging mechanism of traditional phenolic antioxidants, and thus Tinogard® DA can show synergies in conjunction with phenolic antioxidants. It expands the possibilities to protect oils, fats, fragrances and other oxygen sensitive materials from degradation during processing, handling and storage, thus maintaining the product's performance and providing long-lasting shelf life.



We create chemistry

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**Care Chemicals**

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