

LOWINOX™ 1790 stabilizer

Phenolic Antioxidant

Description

LOWINOX™ 1790 stabilizer is a high performance sterically hindered phenolic antioxidant of the trisphenol class with a cyanuric acid central moiety.

Chemical Name

1,3,5-tris(4-tert.-butyl-3-hydroxy-2,6-dimethylbenzyl)-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione

CAS-Number:

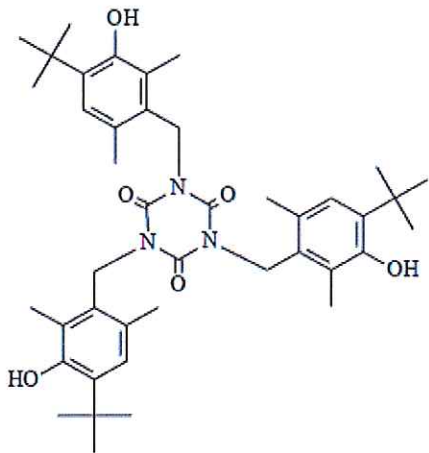
40601-76-1

EINECS-Number:

254-996-9

Formula

LOWINOX™ 1790 stabilizer



Typical physical properties of LOWINOX™ 1790 stabilizer

Appearance	White free flowing powder or granules
Granular Bulk density, g/l	534
Powder Bulk density, g/l	405
Molecular weight [g/mol]	700
Melting range, °C	159-163

Solubility (g/100g solvent) @ 25°C

Water	<0.1	Toluene	75
Methanol	<0.1	Dimethylacetamide	>100
Ethyl Acetate	>100	<i>n</i> -Hexane	1.5
Acetone	60	Chloroform	>100

Thermogravimetric Analysis (10 mg @ 10°C/minute under N₂)

Weight Loss [%]	1	5	10
Temperature [°C]	202	333	349

Application

LOWINOX™ 1790 stabilizer is especially suited for polyurethane, polypropylene, polyester and polyamide fibers where it provides at unusually low load levels excellent gas fading resistance. In addition, the molecular structure and the relatively high molecular weight results in a high extraction resistance in highly demanding applications like hot water conducting polypropylene pipes. For more detailed advice on applications and load levels please contact SI Group Technical Service.

Features

- Excellent gas fading resistance
- High molecular weight, high extraction resistance
- Excellent process stabilizer
- Exceptional heat stabilization in combination with secondary antioxidants (exceptional synergism with **NAUGARD™ DLTDP thioester**) provides excellent processing stability at load levels of 50% - 75% of conventional phenolic antioxidants in rotomolding applications.

Physical Forms

LOWINOX™ 1790 stabilizer is a white to off-white powder. For applications in polyurethane fibers it is available in organic solvents (e.g. Dimethylacetamide). Utilizing SI Group proprietary technology [US 5240642 (31.8.1993), EP 0565184 (1.4.1993)]

LOWINOX™ 1790 stabilizer can be offered also in the form of tailor made NDBs (No Dust Blends) containing **LOWINOX™ 1790 stabilizer** alone or together with co-stabilizers, specific phenolic antioxidants, synergistic light stabilizers of the HALS type, thio or phosphorus synergists. For additional information on the above-mentioned physical forms please contact SI Group Technical Service.

Food Contact

For details please contact SI Group Regulatory Affairs.

Handling and Storage

The use of proper protective equipment is recommended. Excess exposure to the product should be avoided. Wash thoroughly after handling. Store the product in a cool, dry, well-ventilated area away from incompatible materials. Unless otherwise stated, the shelf life of the product is 1 year when it is properly stored.

For additional handling and toxicological information consult the SI Group Material Safety Data Sheet.