RHINOCHEM
TO ENHANCE POLYMER CHARACTERS

TECHNICAL DATA SHEET

Rhinox® 168

Hydrolytically stable phosphite processing stabilizer

Characterization

Rhinox® 168 is a hydrolytically stable phosphite processing stabilizer. As a secondary antioxidant, Rhinox® 168 reacts during processing with hydroperoxides formed by autoxidation of polymers preventing process induced degradation and extending the performance of primary antioxidants.

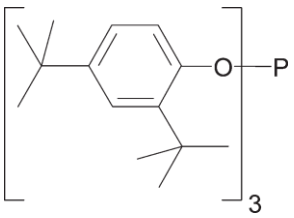
Chemical name

Tris(2,4-di-tert.-butylphenyl)phosphite

CAS number

31570-04-4

Chemical formula



Molecular weight

646.9 g/mol

Applications

The application range of Rhinox® 168 – synergistically combined with other RHINOCHEM anti-oxidants – comprises polyolefins and olefin-copolymers such as polyethylene (e. g. HDPE, LLDPE), polypropylene, polybutene and ethylene-vinylacetate copolymers as well as polycarbonates and polyamides. The blends can also be used in polyesters, styrene homo- and copolymers, adhesives and natural and synthetic tackifier resins, elastomers such as BR, SEBS, SBS, and other organic substrates. Rhinox 168 blends can be used in combination with light stabilizers of the Rhinuva® and Rhinosorb® range.

Features/benefits

Rhinox® 168 is an organophosphite of low volatility and is particularly resistant to hydrolysis. It protects polymers which are prone to oxidation, during the processing steps (compounding/pelletizing, fabrication and recycling) from molecular weight change (by chain scission or crosslinking) and prevents discoloration.

Rhinox® 168 performs best when combined with other RHINOCHEM antioxidants. Blends of Rhinox® 168 with hindered phenols of the Rhinox® range are particularly effective. The hindered phenols addi- tionally provide storage stability and give the polymer long term protectionagainst thermooxidative degradation. Rhinox® 168 comprised in phenol free systems with other appropriate RHINOCHEM stabilizers addresses specific stabilization requirements.

Physical properties

Melting range	183–186 °C
Specific gravity (20 °C)	1.03 g/ml
Bulk densityPowder	
	480–570 g/l
FF	480–550 g/l

Solubility (20 °C)	**g/100 g solution**
Acetone	1
Chloroform	36
Cyclohexane	16
Ethanol	0.1
Ethyl acetate	4
n-Hexane	11
Methanol	<0.01
Dichloromethane	36
TolueneWater	30
	<0.01

Health & Safety

Rhinox® 168 exhibits a very low order of oral toxicity and does not presentany abnormal problems in its handling or general use.

Detailed information on handling and any precautions to be observed in theuse of the product(s) described in this leaflet can be found in our relevant health and safety information sheet.

Note

The descriptions, designs, data and information contained herein are presentedin good faith, and are based on RHINOCHEM's current knowledge and experience.
They are provided for guidance only, and do not constitute the agreed contrac-tual quality of the product or a part of RHINOCHEM's terms and conditions of sale.
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