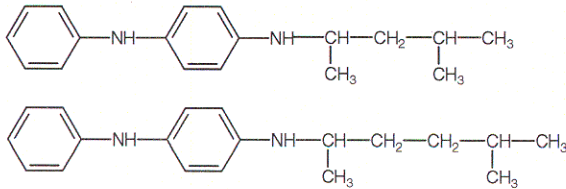




FLEXSYS

Product Data



SANTOFLEX 134PD

Blend of alkyl-aryl-p-phenylenediamines

CAS Reg. No.: 793-24-8/3081-01-4

Molecular weight: 268/282

FUNCTION

Santoflex 134PD functions as a synthetic polymer stabilizer and can be used as a high activity antidegradant for natural and synthetic elastomer compounds.

MAJOR APPLICATIONS AND PROPERTIES

- Santoflex 134PD is a 1:2 blend of N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine (Santoflex 6PPD) and N-1,4-dimethylpentyl-N'-phenyl-p-phenylenediamine (Santoflex 7PPD). Both constituents show comparable activity. Therefore, their blends can be regarded as similar to Santoflex 6PPD in terms of performance in rubber.
- Santoflex 134PD provides efficient stabilization for a wide range of solution and emulsion polymerized elastomers that can tolerate discoloration.
- The product provides powerful antiozonant and antioxidant properties with excellent high temperature flex fatigue resistance to rubber compounds.
- Santoflex 134PD is a liquid at room temperature, providing handling advantages over heated liquid PPD's.
- Santoflex 134PD provides compound protection against catalytic degradation by copper and other heavy metals.
- Santoflex 134PD has no negative effects on compound adhesion to textiles or steel cord up to levels of 2 phr. Above this concentration it may bloom and interfere with ply to ply and ply to cord adhesion.
- It will discolor compounds and cause severe contact and migration staining.
- Santoflex 134PD is regulated for use in articles in contact with food as specified under BgVV XXI, Category 4. Santoflex 134PD is not regulated for use in FDA food contact applications.

COMPOUNDING INFORMATION

Polymer Stabilization

Santoflex 134PD stabilizes synthetic polymers, providing cost effective retention of viscosity and resistance to gel formation to give longer storage life. Use 0.3 to 0.6% on a dry basis in either emulsion or solution synthetics. For emulsion systems one must first emulsify Santoflex 134PD. You can request a suggested formula to make a 50% emulsion from your local Flexsys representative.

Solid Rubber

Add 1-3 phr of Santoflex 134PD to rubber compounds for resistance to ozone and flex fatigue. Increasing level provides increasing protection. To provide maximum performance in static applications include a blended wax in the compound formulation, appropriately chosen for the application's temperature range.

Santoflex 134PD resists oxidation in cured compounds. However, also adding Flectol TMQ antioxidant to the compound will protect the antiozonant from oxidation, thus further enhancing long term performance.

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HANDLING PRECAUTIONS

For detailed information on toxicological properties and handling precautions please refer to the current Safety Data Sheet. This information sheet can be downloaded from our web site or requested from the nearest Flexsys office and should be consulted before handling this product.

STORAGE RECOMMENDATIONS

Santoflex 134PD can be stored in drums or in bulk tanks. Store drums below 35°C and away from direct sunlight. For heated bulk storage above 35°C incorporate a nitrogen blanket on the tank to prevent product oxidation that could reduce its usefulness as an antiozonant. Also continuously circulate product stored in heated tanks to minimize temperature gradients and reduce heating element fouling, thus maximizing the product's consistency.

PRODUCT INFORMATION

Santoflex 134PD Product form	liq liquid mixture	liq-s refined liquid mixture	
<u>PRODUCT SPECIFICATIONS</u>			<u>Test method</u>
Appearance	dark liquid	dark liquid	FF97.5
Active ingredients, total (GC) (%) min.	95.0	95.0	FGC97.10
- Santoflex 6PPD (%) min.	30.7	30.7	FGC97.10
- Santoflex 7PPD (%) min.	61.3	61.3	FGC97.10
Ketones (%) max.	-	0.07	FGC97.10
Heat loss (%) max.	1.0	0.5	FGr97.7
Ash (%) max.	0.1	0.1	FGr90.9
<u>TYPICAL PROPERTIES</u>			
Viscosity at 75°C (cSt)	13-17	13-17	
Specific gravity at 45/15°C	0.992-1.010	0.992-1.010	

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134PD2.AD/1000

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