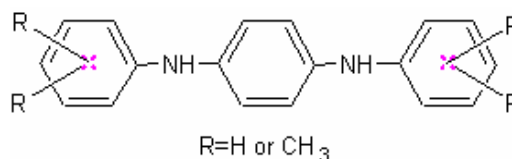




Antiozonant DOX-2

Specification number: DOX2-012007

1. Chemical description:

Chemical name: Mixed Diaryl-p-phenylenodiamines
Chemical formula: $R_2C_6H_3NHC_6H_4NHC_6H_3R_2$, R = H or CH_3 CAS number: 68953-83-3
EINECS number: 273-226-2

2. Typical properties:

Appearance and form at 20° C: Brown-black, semi-solid
Molecular weight: ~300 g / mol
Solubility in water at 20°C: Insoluble
Organic solvents: Soluble in acetone, toluene and xylene
Melting point: 50 ÷ 70° C
Decomposition point: > 200° C
Density at 20° C: 1,00 ÷ 1,20 g / cm³

3. Specification values:

No.	Property	Unit	Specification		Test Method
			Min	Max	
1	Density at 25° C	g / cm ³	1,000	1,200	ISO 758:1976
2	Viscosity at 50° C	mPa•s	-	3000	DJCHEM-212/00
3	Viscosity at 70° C	mPa•s	-	250	DJCHEM-212/00
4	Active components	wt. %	85,0	-	DJCHEM-210/04 (GC)

Date: 19-01-2007

Signature:

4. APPLICATIONS

- ANTIOXIDANT DOX - 2, a liquid at 60°C, has negligible scorch effect and is the least staining of the commercially available p-phenylenediamines
- ANTIOXIDANT DOX - 2 is a persistent antiozonant, a powerful antioxidant and an anti-flexcracing agent for many natural and synthetic elastomers.
- ANTIOXIDANT DOX -2 is widely used as a stabilizer for staining emulsion SBR. It is unaffected by even the lowest pH encountered during coagulation of the rubber and will provide excellent protection during drying, storage and processing of the SBR.

5. SAFETY AND HANDLING

- According to EEC regulations, practically non-harmful by ingestion.
- Acute oral toxicity: LD 50 (rat) 4 g/kg
- Practically non-harmful by skin absorption.
- ANTIOXIDANT DOX - 2 may also be used in articles intended for use in contact with food in accordance with FDA regulations 175.105 (Adhesives) and 177.2600 (Rubber articles intended for repeated use).
- Transport regulations: ANTIOXIDANT DOX – 2 is classified as non-hazardous liquid.

6. PACKAGING

- Metal drums or road tanks
- Storage life: 6 month if stored unopened in original packaging under normal conditions
- It is recommended that the temperature of bulk storage tanks be kept at around 60 °C if material is stored for a long time as ANTIOXIDANT DOX - 2 may deteriorate if it is exposed to high temperatures for a long time.