



SOVEREIGN CHEMICAL COMPANY

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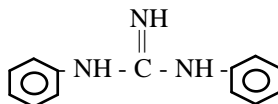
Sovchem® DPG Oiled Powder

Manufacturer: Sovereign Chemical Company

Classification: Guanidine Accelerator

Chemical Composition:

Chemical Structure:



Empirical Formula: $C_{13}N_3H_{13}$
Molecular Weight: 211.3
CA Nomenclature: Guanidine, N, N' - diphenyl
Synonym Nomenclature: Diphenylguanidine

Physical Data

Specification Properties	Value	Test Method
Purity	96.0% minimum	ASTM D5054
Melting Point (initial)	144.0°C minimum	ASTM D1519
Melting Point (final)	150.0°C maximum	ASTM D 1519
Heat Loss	0.30% maximum	ASTM D4571 @ 60°C
Ash	0.40% maximum	ASTM D4574 @ 900°C
Sieve Residue	0.10% maximum	ASTM D4570 100 mesh
Oil Content	1.0 - 2.0%	In Process
Typical Properties		
Physical Form	White to gray powder	Visual
Specific Gravity	1.13 – 1.23	Typical

Applications

Description: Thiazole and sulfenamide booster, accelerator. **DPG** is non-nitrosamine generating. **DPG** can replace TMTD in many applications. **DPG** is excellent accelerator for curing thick rubber articles.

Polymers: Natural rubber and most synthetic rubbers.

Synergism: Synergistic effect with thiazoles, sulfenamides and thiurams.

Cure Effect: Excellent secondary accelerator for boosting thiazoles and sulfenamides. Slow curing primary accelerator for natural rubber but too slow for synthetic rubbers. **DPG** has less scorch safety than DOTG. Need slightly more **DPG** than DOTG to get the same state of cure.

Crosslink Type: **DPG** produces predominately poly-sulfidic crosslinks which maximizes the tear strength of its vulcanizates.

FDA Regulations

177.2600 Rubber articles for repeated use - Limitation 1.5% maximum

Packaging and Storage

Packaging: 20 Kg (44.1 lb.) kraft paper bags with a PE liner.

Shelf Life: 2 years if stored as indicated below.

Storage: Store in unopened original packaging in a cool dry place.

Specification Date: September 23, 2004 (supercedes November 20, 2003)