



SOVEREIGN CHEMICAL COMPANY

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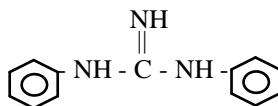
Sovchem® DPG Granule

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)	145.0 °C Minimum	ASTM D1519
Melting Point (final)	150.0 °C Maximum	ASTM D1519
Heat Loss @ 60°C	0.30% Maximum	ASTM D4571
Ash @ 900°C	0.30% Maximum	ASTM D4574

Typical Properties

Physical Form	White to gray granules	Visual
Specific Gravity	1.18	Typical

Applications

Description: Thiazole and sulfenamide booster, accelerator. Non-nitrosoamine generating. Can replace TMTD in many applications. 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 Regulation

177.2600 Rubber articles for repeated use - Limitation 1.5% maximum

Packaging and Storage

Packaging: 20 Kg (44.1 lb.) paper bags or special packaging upon request.

Shelf Life: 2 years if stored as indicated below.

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

Specification Date: February 16, 2011 (Supersedes September 23, 2004)