

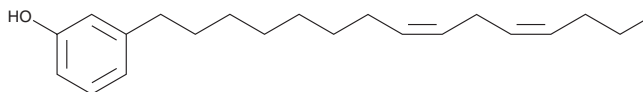
# PRODUCT INFORMATION



## Cardanol diene

Item No. 23153

CAS Registry No.: 51546-63-5  
Formal Name: 3-8Z,11Z-pentadecadien-1-yl-phenol  
MF: C<sub>21</sub>H<sub>32</sub>O  
FW: 300.5  
Purity: ≥95%  
UV/Vis.: λ<sub>max</sub>: 244, 273 nm  
Supplied as: A neat oil  
Storage: -20°C  
Stability: ≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Cardanol diene is supplied as a neat oil. A stock solution may be made by dissolving the oil in the solvent of choice. Cardanol diene is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of cardanol diene in these solvents is approximately 22, 15, and 20 mg/ml, respectively.

Cardanol diene is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cardanol diene should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Cardanol diene has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Cardanol diene is a phenol found in cashew nut shell liquid that inhibits tyrosinase with an IC<sub>50</sub> value of 52.5 μM *in vitro*.<sup>1</sup> Cardanol diene is used to synthesize cardanol-metal complexes that inhibit uropathogenic *E. coli* biofilm formation.<sup>2</sup>

### References

1. Yu, X.-P., Su, W.-C., Wang, Q., *et al.* Inhibitory mechanism of cardanols on tyrosinase. *Proc. Biochem.* **51(12)**, 223-2237 (2016).
2. Lalitha, K., Sandeep, M., Prasad, Y.S., *et al.* Intrinsic hydrophobic antibacterial thin film from renewable resources: Application in the development of anti-biofilm urinary catheters. *ACS Sus. Chem. Eng. (Univ. of Berlin)* **5(1)**, 436-449 (2017).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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