

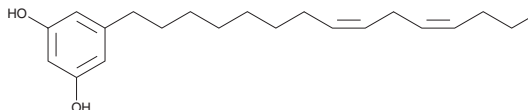
# PRODUCT INFORMATION



## Cardol diene

Item No. 23373

CAS Registry No.: 79473-25-9  
Formal Name: 5-(8Z,11Z)-8,11-pentadecadien-1-yl-1,3-benzenediol  
MF:  $C_{21}H_{32}O_2$   
FW: 316.5  
Purity:  $\geq 95\%$   
UV/Vis.:  $\lambda_{\max}$ : 279 nm  
Supplied as: A 5 mg/ml solution in acetonitrile  
Storage:  $-20^{\circ}\text{C}$   
Stability:  $\geq 1$  year



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

### Laboratory Procedures

Cardol diene is supplied as a 5 mg/ml solution in acetonitrile. To change the solvent, simply evaporate the acetonitrile under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of cardol diene in these solvents is approximately 22, 15, and 20 mg/ml, respectively.

Cardol diene is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the acetonitrile solution of cardol diene should be diluted with the aqueous buffer of choice. Cardol diene has a solubility of 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

Cardol diene is a phenol found in cashew nut shell liquid.<sup>1</sup> It is schistosomicidal, killing 50, 100, 100, and 100% of *S. mansoni* worms after 24 hours when used at concentrations of 25, 50, 100, or 200  $\mu\text{M}$ , respectively.<sup>2</sup> Cardol diene has an  $\text{LC}_{50}$  value of 32.2  $\mu\text{M}$  after 24 and 48 hours against *S. mansoni* worms. It has been used as a starting material for the synthesis of bis-benzoxazines.<sup>3</sup>

### References

1. Tyman, J.H. and Kiong, L.S. Long chain phenols: Part XI. Composition of natural cashew nutshell liquid (*Anacardium occidentale*) from various sources. *Lipids* **13**(8), 525-532 (1978).
2. Alvarenga, T.A., de Oliveira, P.F., de Souza, J.M., et al. Schistosomicidal activity of alkyl-phenols from the cashew *Anacardium occidentale* against *Schistosoma mansoni* adult worms. *J. Agric. Food Chem.* **64**(46), 8821-8827 (2016).
3. Attanasi, O.A., Behalo, M.S., Favi, G., et al. Solvent free synthesis of novel mono- and bis-benzoxazines from cashew nut shell liquid components. *Curr. Org. Chem.* **16**(21), 2613-2621 (2012).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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