TOCRIS
a bio-techne brand

Print Date: Jan 15th 2016

Certificate of Analysis

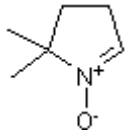
www.tocris.com

Product Name: **DMPO** **Catalog No.: 3415** **Batch No.: 1**

CAS Number: 3317-61-1 EC Number: 222-011-1

IUPAC Name: 3,4-Dihydro-2,2-dimethyl-2*H*-pyrrole 1-oxide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	$C_6H_{11}NO$
Batch Molecular Weight:	113.16
Physical Appearance:	Colourless liquid
Solubility:	DMSO to 100 mM ethanol to 100 mM
Storage:	Store at -20°C
Batch Molecular Structure:	

2. ANALYTICAL DATA

^{1}H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

Product Name: **DMPO** **Catalog No.: 3415** **Batch No.: 1**

CAS Number: 3317-61-1 EC Number: 222-011-1

IUPAC Name: 3,4-Dihydro-2,2-dimethyl-2*H*-pyrrole 1-oxide

Description:

Water soluble nitric oxide spin trap; allows the measurement of oxygen-centered free radicals in biological systems at room temperature using electron spin resonance (ESR). Has a high reaction rate constant for superoxide and hydroxyl radicals, and distinguishes simultaneously among a variety of important biologically generated free radicals.

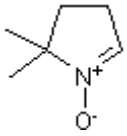
Physical and Chemical Properties:

Batch Molecular Formula: $C_6H_{11}NO$

Batch Molecular Weight: 113.16

Physical Appearance: Colourless liquid

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 100 mM

CAUTION - This product is hygroscopic and we recommend that it is desiccated upon arrival. This product is supplied as a lyophilized oil and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Togashi *et al* (2000) Analysis of hepatic oxidative stress status by electron spin resonance spectroscopy and imaging. Free Radic.Biol.Med. ***28*** 846. PMID: 10802214.

Nohara *et al* (2009) The generation of lucigenin chemiluminescence from the reaction of guanidino compounds with phenylglyoxal under alkaline conditions and its application. Chem.Pharm.Bull. ***57*** 700. PMID: 19571414.

Saito *et al* (2009) Comparison of superoxide detection abilities of newly developed spin traps in the living cells. Free Radic.Res. ***43*** 668. PMID: 19479584.

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956