



Europa Bioproducts Ltd

15-17 North Street • Wicken
Ely • Cambridge • CB7 5XW
Tel: 0044 (0)1353-721118
Fax: 0044 (0)1353-624589

Data Sheet

Description:	Nitro-PAPS. 2-(5-Nitro-2-pyridylazo)-5-[N-n-propyl-N-(3-sulfopropyl)amino]phenol, disodium salt, dihydrate
Catalogue:	DJ109A
Supplier:	Europa Bioproducts Ltd www.europa-bioproducts.com
CAS No:	143205-66-7
Chemical Formula:	$C_{17}H_{19}N_5Na_2O_6S, 2H_2O$
Molecular Weight:	503.45
Specification	
Purity:	>90.0%
Appearance:	Dark green, or dark greenish brown powder
Solubility in water (50mg/100ml):	To pass test (clear, dark red)
Molar Absorptivity pH7:	50,000 (around 450 nm)
Absorbance (0.1 nmol/l pH 7)	< 0.060 (566 nm)
Water content K.Fischer):	< 10.0%
IR Spectrum:	Authentic
Storage/Stability:	Keep tightly closed. Store in a cool, dark and dry place.



CERTIFICATE NO. 32423

E.mail: info@europa-bioproducts.com

Web site: <http://www.europa-bioproducts.com>

Registered Office: 15-17 North Street, Wicken, Ely, Cambridgeshire CB7 5XW
Registered Number: 2703381



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Product Name: Nitro-PAPS

Product Code: N031-10
Unit: 100 mg
Product Code: N031-12
Unit: 1 g

Description:

Storage: Ambient Temperature
Shipping Condition: Ambient Temperature
Chemical Name: 2-(5-Nitro-2-pyridylazo)-5-[N-n-propyl-N-(3-sulfopropyl)amino]phenol, disodium salt, dihydrate
CAS Number: 143205-66-7

Appearance: dark green or dark green brown powder

Purity: >90.0 %

Molar absorptivity: >50,000 (450 nm)

Absorbance (9.9x10⁻⁶ M in buffer soln.): <0.06 (566 nm)

Nitro-PAPS is a highly sensitive colorimetric reagent for Fe(II) detection that forms a water-soluble complex at 3.0-8.0 (λ_{\max} =582 nm, ϵ =107,000). This reagent is suitable for the determination of Fe(II) in serum, and can also be used to determine micromolar levels of Cu, Zn, Ni and Co. Cu and Zn in serum are masked by a mixture of thioglycolic acid and SDS. Zn in serum can be determined by Nitro-PAPS using CN⁻ as a masking reagent of Fe(II).
Cu.

Spectral Data of Nitro-PAPS-Metal Complex

Metal	λ_{\max}	Molar Absorptivity	Metal	λ_{\max}	Molar Absorptivity
Co(II)	590 nm	113,000	Ni(II)	568 nm	150,000
Cu(II)	566 nm	71,000	Zn(V)	566 nm	150,000



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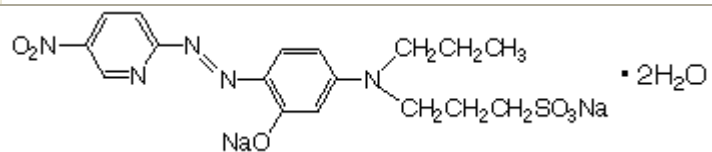
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Fe(II)	582 nm	107,000			
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