FerroQuant™ Pro

(Mercury Free-Ferrozine)

A Safer, Sustainable Solution for Iron Determination

PRODUCT IN FOCUS

EXSYN® ESSENTIAL CHEMISTRY

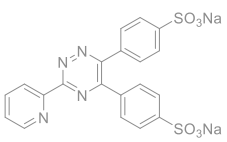
FerroQuant™ Pro (Ferrozine)

INTRODUCTION

FerroQuant™ Pro is a water-soluble chromogenic reagent widely used for the spectrophotometric determination of iron. Chemically, it is a ferroin-type ligand that forms a stable, intensely colored complex with ferrous ions (Fe^{2+}).

MANUFACTURE

Ferrozine is synthesized through a multistep process starting from 2-cyanopyridine. The synthesis involves hydrazine treatment, followed by reaction with benzil to form a triazine intermediate, which is subsequently sulfonated and converted to its sodium salt to yield Ferrozine. All steps are performed under controlled conditions to ensure consistent product quality.

Synonyms	Benzenesulfonic acid, 4,4′-[3-(2-pyridinyl)-1,2,4-triazine-5,6-diyl]bis-, disodium salt; Ferrospectral; Ferrozine Disodium Salt
CAS no.	28048-33-1
EINECS no.	248-797-6
Molecular formula	$C_{20}H_{12}N_4Na_2O_6S_2$
Molecular weight	514.44
Structure	

APPLICATIONS

FerroQuant™ Pro has numerous applications in analytical chemistry, biochemistry, environmental analysis and industrial testing.

Determination of iron:

- It is one of the widely used colorimetric reagents for measuring Fe^{2+} and total iron.

Biochemical assays & Environmental analysis:

- Used to determine iron in biological samples such as blood, serum, cells and tissue extracts.
- Used for detecting iron in water, wastewater and environmental samples.

Food and pharmaceutical analysis:

- Can be used for determining iron concentrations in food products, nutritional preparations and pharmaceutical samples.

Iron-binding studies:

- Useful for investigating iron availability, iron release and iron-binding processes in biochemical systems.

Redox studies:

- Since the reagent responds specifically to Fe^{2+}, it can be incorporated into assays involving the reduction of Fe^{3+} to Fe^{2+}.

Quantitative spectrophotometry:

- Its strong color response provides a sensitive method for determining relatively small concentrations of iron.

© ExSyn Corp | All rights reserved. | www.exsyncorp.com

FerroQuant™ Pro

(Mercury Free-Ferrozine)

A Safer, Sustainable Solution for Iron Determination

PRODUCT IN FOCUS

EXSYN® ESSENTIAL CHEMISTRY

SPECIFICATIONS

Test	Unit	Specification
Appearance	-	Greenish yellow powder
Solubility (C5%; w/v. in acetate buffer, pH 5.5)	-	Yellow, Clear
Identification by UV (c = 1%, w/v, d = 1 cm)	-	Should correspond to standard Max 282-284 nm Specific extinction at absorption Max 385-465
Identification by IR	-	Should correspond to standard
Sodium by flame photometry, based on hydrous substance	%	4.0 - 9.0
Water Content (By KF)	%	≤10.0
Assay Ferrozine anion (Photometric), based on hydrous substance	%	90.0 - 110.0
Iron (Fe) content (By ICP-MS)	ppm	NMT 10
Mercury content (By ICP-MS)	-	Should be absent
Purity by HPLC	%	To report
Purity by LCMS	%	To report

© ExSyn Corp | All rights reserved. | www.exsyncorp.com

FerroQuant™ Pro

(Mercury Free-Ferrozine)

A Safer, Sustainable Solution for Iron Determination

PRODUCT IN FOCUS

STORAGE

Keep in dry, cool place in tightly closed containers between +15 °C - +40 °C.

PACKING

25 kg HDPE drum

REACH Status

Not registered

ExSyn offers FerroQuant™ Pro on commercial scales and welcomes enquiries. No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.

© ExSyn Corp | All rights reserved. | www.exsyncorp.com