#### **GMP BIOTECH PRODUCT**

# MOPS, FREE ACID

CAS #: 1132-61-2 Formula: C<sub>7</sub>H<sub>15</sub>NO<sub>4</sub>S F.W.: 209.26 g/mol

#### MOPS-4221

## **BIO PHARMA GRADE**

ANALYSIS			
Absorbance (0.1M)         260 nm         <= 0.020 a.u.           280 nm         <= 0.020 a.u.           Appearance and Color         White Crystals           Assay, Dried Basis         >= 99.5%           Chloride         <= 50 ppm           Enzymes         DNase RNase Protease           RNase Protease         None Detected None Detected None Detected None Detected           Loss on Drying         <= 1.0%           pH (1%)         3.0 - 4.5           pH (2.5M)         2.5 - 4.5           pKa         7.0 - 7.5           Residue on Ignition         <= 0.1%           Solubility (5%)         Passes Test           Sulfate         <= 50 ppm           Aluminum (Al) Arsenic (As) Arsenic (As) Sismuth (Bi) Calcium (Ca) Chromium (Cr) Chromium	Analysis		SPECIFICATIONS
Assay, Dried Basis         > = 99.5%           Chloride         < = 50 ppm	Absorbance (0.1M)	260 nm	< = 0.020 a.u.
Chloride < = 50 ppm  DNase RNase RNase Protease None Detected None Detec	Appearance and Color		White Crystals
Enzymes  DNase RNase Protease  Identification, IR  Loss on Drying  PH (1%)  PH (2.5M)  PKa  Residue on Ignition  Solubility (5%)  Arsenic (As) Bismuth (Bi) Calcium (Ca) Chromium (Cr) Trace Copper (Cu) Metals  Iron (Fe) Lead (Pb) Lithium (Li) Magnesium (Mg) Molybdenum (Mo) Nickel (Ni)  None Detected None Detec	Assay, Dried Basis		> = 99.5%
Enzymes RNase Protease None Detected None Detected None Detected None Detected  Identification, IR Conforms to Reference Standard  Loss on Drying <= 1.0%  pH (1%) 3.0 - 4.5  pH (2.5M) 2.5 - 4.5  pKa 7.0 - 7.5  Residue on Ignition <= 0.1%  Solubility (5%) Passes Test  Sulfate <= 50 ppm  Aluminum (Al)	Chloride		< = 50 ppm
Identification, IR  Loss on Drying  pH (1%)  3.0 - 4.5  pH (2.5M)  pKa  7.0 - 7.5  Residue on Ignition  Solubility (5%)  Aluminum (AI)  Arsenic (As)  Bismuth (Bi)  Calcium (Ca)  Calcium (Ca)  Chromium (Cr)  Trace  Copper (Cu)  Metals  Iron (Fe)  Lead (Pb)  Lithium (Li)  Magnesium (Mg)  Molybdenum (Mo)  Nickel (Ni)  Reference Standard  Standard  Calcium (2.5 ppm  C = 5 ppm  C = 5 ppm  Lead (Pb)  C = 5 ppm  Magnesium (Mg)  Molybdenum (Mo)  Nickel (Ni)  Solubility (2.5 ppm  C = 5 ppm	Enzymes	RNase	None Detected
pH (1%)  pH (2.5M)  pKa  7.0 - 7.5  Residue on Ignition  Solubility (5%)  Passes Test  Sulfate  Aluminum (Al)  Arsenic (As)  Bismuth (Bi)  Calcium (Ca)  Chromium (Cr)  Trace  Copper (Cu)  Metals  Iron (Fe)  Lead (Pb)  Lithium (Li)  Magnesium (Mg)  Molybdenum (Mo)  Nickel (Ni)  A 3.0 - 4.5  3.0 - 4.5  3.0 - 4.5  Aluminum  Cal.5  Passes Test  <= 50 ppm  <= 5 ppm	Identification, IR		
pH (2.5M)         2.5 - 4.5           pKa         7.0 - 7.5           Residue on Ignition         < = 0.1%	Loss on Drying		< = 1.0%
pKa 7.0 - 7.5  Residue on Ignition <= 0.1%  Solubility (5%) Passes Test  Sulfate <= 50 ppm  Aluminum (Al)	pH (1%)		3.0 - 4.5
Residue on Ignition <= 0.1%  Solubility (5%)  Passes Test  Sulfate  Aluminum (AI) Arsenic (As) Bismuth (Bi) Calcium (Ca) Chromium (Cr)  Trace Copper (Cu) Metals  Iron (Fe) Lead (Pb) Lithium (Li) Magnesium (Mg) Molybdenum (Mo) Nickel (Ni)  Passes Test  <= 5 ppm	pH (2.5M)		2.5 - 4.5
Solubility (5%)  Passes Test  Sulfate  Aluminum (Al) Arsenic (As) Bismuth (Bi) Calcium (Ca) Chromium (Cr)  Trace Copper (Cu) Metals Iron (Fe) Lead (Pb) Lithium (Li) Magnesium (Mg) Molybdenum (Mo) Nickel (Ni)  Passes Test  2 5 ppm  2 5 ppm  4 5 ppm  5 5 ppm  6 5 ppm  7 5 ppm  7 5 ppm  8 5 ppm  9 6 5 ppm  9 7 5 ppm  9 7 5 ppm  9 8 5 ppm  9 9 7 5 ppm  9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	рКа		7.0 – 7.5
Sulfate         <= 50 ppm	Residue on Ignition		<= 0.1%
Aluminum (Al)	Solubility (5%)		Passes Test
Arsenic (As)	Sulfate		< = 50 ppm
Water, KF <= 0.1%	Ai Bi: Ca Chro Trace Co Metals L Magne Molybde	rsenic (As) smuth (Bi) lcium (Ca) mium (Cr) opper (Cu) Iron (Fe) Lead (Pb) ithium (Li) sium (Mg) enum (Mo)	< = 5 ppm < = 5 ppm
	Water, KF		<= 0.1%

# Intended for Use in Biopharmaceutical & Biotechnological Applications and Products

MOPS, Free Acid is a high purity, reagent grade product, purified under full cGMP conditions. MOPS is a zwitterionic buffer used as a running buffer for denaturing gel electrophoresis and as a buffering agent in many biological and biochemical applications. It can be used as a Good's buffer because it has low UV absorptivity, minimal reactivity, stable pH and is soluble in water.

#### **General Product Description**

- Appears as a white crystalline product
- Manufactured in accordance with IPEC
- Manufactured in an enzyme free, hormone free and animal free environment
- Contains no known major food allergens (as defined by FDA and WHO)
- The final product and its raw materials are not derived from nor come into contact with animal parts, animal products, and/or animal byproducts/derivatives.
- Is not subject to genetic modification
- Synonyms: 3-(N-Morpholino) Propanesulfonic Acid, 4-Morpholinepropanesulfonic Acid
- Visit the product page on our website (<u>www.biospectra.us</u>) for additional information, supporting regulatory documents, and CoAs.

# **Storage and Shipping Conditions**

Refer to SDS.

#### **Standard Shelf Life Policy**

Each Certificate of Analysis will contain a 2-year retest date supported by a 3-year ICH Q1 Stability Study (if one is completed).

#### **Package Sizes**

100g, 500g, 1kg, 5kg, 10kg, 25kg, 50kg

#### **Standard Lead Time**

2-4 weeks

## **Country of Origin: USA**

This is not considered a controlled document. We are not responsible for any errors or omissions, and the user is responsible for any decisions based on the information herein.