

BIO SPECTRA

Safety Data Sheet MES Monohydrate

Section 1 - Chemical Product and Company Identification

1.1 Product Identifiers

SDS Name: MES, Monohydrate

Catalog Numbers: ME5220, ME4220, ME3220

CAS#: 145224-94-8

EC#: 224-632-3

RTECS#: NA

1.2 Recommended Use of the Chemical and restrictions of Use

Chemical manufacturing

1.3 Company Identification:

BioSpectra, Inc.

100 Majestic Way

Bangor, Pa 18013

610.599.3400

1.4 Emergency Number s:

US & Canada: 1-800-424-9300

Outside the US & Canada: +1 703-527-3887

Section 2 – Hazard Identification

2.1 Classification of substance or mixture

Skin Corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A

Specific target organ toxicity (single exposure) Category 3

2.2 GHS Label Elements Including Precautionary Statements

Pictogram



Signal Word: Warning

Hazard Statement(s)

H315	May cause skin irritation.
H319	Causes serious eye irritation.
H355	May cause respiratory irritation.

Precautionary Statement(s)

P261	Avoid breathing dust/fume/gas/vapors/spray.
P264	Wash face, hands and any exposed skin thoroughly after handling.

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P307+P311	If exposed or concerned: Get medical advice/attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of soap and water
P332+P313	If skin irritation occurs: Get medical advice/attention.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P403+P223	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not Classified or not Covered by the GHS

None

Section 3 – Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
145224-94-8	4-Morpholineethanesulfonic acidmonohydrate	98-100%	224-632-3

Molecular Formula: C₆H₁₃NO₄S · H₂O

Molecular Weight: 213.25 g/mol

Synonyms: 4-Morpholineethanesulfonic acidmonohydrate; 2-(N-Morpholino)ethanesulfonic acid

Section 4 - First Aid Measures

4.1 Description of necessary first aid measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid if irritation develops.

Skin: Wash with soap and flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion: Never give anything by mouth to an unconscious person. If victim is conscious rinse out mouth with water. Get medical attention.

Inhalation: Remove to fresh air. If not breathing give artificial respiration.

4.2 Most Important symptoms/effects, acute and delayed

Refer to Section 2.2 for Precautionary Statements if any are applicable

4.3 Indication of Immediate Medical Attention and Special Treatment

No information available

Section 5 - Firefighting Measures

5.1 Extinguishing Media

In case of fire, use water, dry chemical, chemical foam, or carbon dioxide.

5.2 Specific Hazards Associated with this Chemical

Carbon oxides, nitrogen oxides (NO_x), Sulphur oxides

5.3 Special Equipment/Precautions for Firefighters

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source. In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Explosion will appear as fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.4 Other information

None available

Section 6 - Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Use proper personal protective equipment as indicated in Section 8. Avoid dust formation. Avoid breathing vapors, mist or gas.

6.2 Environmental Precautions

Do not allow to enter drains

6.3 Methods and Materials for Containment and Cleaning Up

Remove all sources of ignition. Do not let enter drains. Ventilate area of leak or spill. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

6.4 Other information

None available

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for Storage Including any Incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

7.3 Other information

None available

Section 8 - Exposure Controls, Personal Protection

8.1 Control parameters

Chemical does not contain any substances with occupational exposure limits

8.2 Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

8.3 Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. A respiratory protection program that meets OSHA's 29 CFR '1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Solid	Melting Point: >300C (>527F)
Appearance: White Crystalline Powder	Boiling Point: Not applicable
Odor: Odorless	Decomposition Temperature: N/A
pH: 3.5-5.5 (0.5M sol.)	Specific Gravity/Density: Not available
Vapor Pressure: Negligible	Solubility: Not available
Vapor Density: Not applicable	Molecular Weight: 213.25 g/mol
Viscosity: Not available	Molecular Formula: C ₆ H ₁₃ NO ₄ S · H ₂ O

Section 10 - Stability and Reactivity

10.1 Chemical Stability

Stable under normal temperatures and pressures.

10.2 Conditions to Avoid

Incompatible materials, dust generation, excess heat and ignition sources.

10.3 Incompatibilities with Other Materials

Strong oxidizers.

10.4 Hazardous Decomposition Products

Oxides of carbon, sulfur and nitrogen may form when heated to decomposition.

10.5 Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

11.1 Toxicological effects

CAS# 145224-94-8 unlisted.

LD50/LC50: Not available.

Carcinogenicity CAS# 145224-94-8: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: Not available

Teratogenicity: Not available

Reproductive Effects: Not available
Neurotoxicity: Not available
Mutagenicity: Not available
Other Studies: Not available

11.2 Other information

RTECS#: N/A

To the best of our knowledge the associated physical, chemical and toxicological properties of this chemical have not undergone thorough investigation, all known information is contained in this SDS.

Section 12 - Ecological Information

12.1 Ecotoxicity

Not available.

12.2 Persistence and degradability

No information available

12.3 Bioaccumulative Potential

No information available

12.4 Mobility in Soil

No information available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other Adverse Effects

No information available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

	US DOT	IATA	IMDG
Shipping Name:	Not Dangerous Goods	Not Dangerous Goods	Not Dangerous Goods
Hazard Class:			
UN Number:			
Packing Group:			

Section 15 - Regulatory Information

15.1 EHS Chemical Specific Regulations

SARA Section 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312: Acute health hazard

STATE:

Pennsylvania Right To Know Components

4-Morpholineethanesulfonic acidmonohydrate CAS-No.145224-94-8

New Jersey Right To Know Components

4-Morpholineethanesulfonic acidmonohydrate CAS-No.145224-94-8

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Section 16 - Additional Information

NFPA Classification

Health hazard: 2

Flammability: 0

Reactivity Hazard: 0

The information conveyed in this Safety Data Sheet is only a representation of what BioSpectra has found to be accurate based on the current information that is available in regards to this compound. BioSpectra makes no warranty, expressed or implied, with respect to such information, and therefore assumes no liability resulting from product usage. It is strongly recommended that users of this product perform their own investigations to determine the accuracy and suitability of the information for their specific purposes. In no way will BioSpectra assume liability for any claims, losses, damages to any third party, any lost profits or any special, indirect, incidental, consequential or exemplary damages that may arise, even if BioSpectra has been advised of the possibility of such damages.