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SECTION 1 Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Identification of the product : Raw Material
Product code : MES
Trade name : MES Monohydrate
CAS number : 145224-94-8
Structural Formula : C₆H₁₃NO₄S.H₂O
Synonym(s) : 2-(N-Morpholino)-ethanesulfonic acid
4-Morpholineethanesulfonic acid monohydrate

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Relevant identified uses : For research purposes only

1.2.2 Uses advised against No additional information available

1.3. Details of the supplier of the safety data sheet

Company identification : Formedium Ltd.
Unit 1B Hunstanton Commercial Park
Norfolk PE365JQ
Tel: +44(0)1485 609069
Fax: +44(0)1485 600510
E-mail: info@formedium.com

1.4. Emergency telephone number

Emergency telephone number : Tel: +44(0)1485 609069 (local time : 9.00 to 17.00)
National Poison Information Centre : Europe UK : +44 0845 4647 (this service is only available to health professionals)
See www.toxbase.org for a local poison centre

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

:
Classification according to Regulation (EC) No 1272/2008
Not regulated

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008
Hazards pictograms code : None
Precautionary statements : None

2.3 Other hazards

None under normal conditions.

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SECTION 3 Composition/information on ingredients

Substance : This product is not classified as hazardous.

Substance name:	Contents	CAS No:	EC No:	Annex No:	Ref REACH	Classification
MES Monohydrate	>99%	145224-94-8	224-632-3	--	--	Not classified

SECTION 4 First aid measures

4.1. Description of first aid measures

- General information** : Seek medical attention if ill effect develops.
- Inhalation** : Remove victim to fresh air.
- Skin contact** : Flush with plenty of water.
- Eye contact** : Rinse with water.
- Ingestion** : Seek medical attention if ill effect develops, Give water to drink.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms and effects, both acute and delayed. : No data available.

4.3. Indication of any immediate medical attention and special treatment needed

Medical attention and special treatment needed. : No data available.

SECTION 5 Fire-fighting measures

5.1. Extinguishing media


Suitable extinguishing media : Dry powder
Water spray
Alcohol-resistant foam

5.2. Special hazards arising from the substance or mixture

When heated to decomposition, emits toxic fumes. NOx
SOx
COx

5.3. Advice for firefighters

- Protection against fire** : Wear proper protective equipment.
- Special procedures** : Avoid (reject) fire fighting water to enter environment.

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SECTION 6 Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures

Technical measures : Use good housekeeping practices to avoid rendering dust airborne.

6.2. Environmental precautions

Environmental precautions : Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Clean up methods : Dispose in a safe manner in accordance with local / national regulations.
Sweep up dry powder and dispose properly.

6.4. Reference to other sections

For disposal see section 13.

SECTION 7 Handling and storage
7.1. Precautions for safe handling

General : Store in a dry, well-ventilated area.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry, cool area.
Store at room temperature.

7.3. Specific end use(s)

Specific end use(s) : For research purposes only

SECTION 8 Exposure controls/personal protection
8.1. Control parameters

No additional information available.


8.2. Exposure controls

- **Eye protection** : Safety glasses.
- **Skin protection** : Wear suitable protective clothing.
- **Hand protection** : In case of repeated or prolonged contact wear gloves.
- **Respiratory protection** : Where excessive dust may result, wear approved mask. Type P1 (EN143)

SECTION 9 Physical and chemical properties
9.1 Information on basic physical and chemical properties.

- **Appearance**

Physical state at 20°C : Crystalline Powder
Colour : White.
Odour : Odourless


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SECTION 9 Physical and chemical properties (continued)

Odour threshold	: Not established.
pH	: 5.5 – 6.7
pKa (25°C)	: 6.1
Melting point (°C)	: > 300
Boiling point (°C)	: No data available.
Flash point (°C)	: No data available.
Evaporation rate (ether=1)	: No data available.
Flammability range (vol % in air)	: No data available.
Explosion limits	: No data available.
Vapour pressure	: No data available.
Relative vapour density (air = 1)	: No data available.
Relative Density	: No data available.
Solubility in water	: > 100 g/L
Log P octanol / water at 20°C	: No data available.
Auto ignition temperature (°C)	: No data available.
Thermal decomposition (°C)	: No data available.
Explosive properties	: No data available.
Oxidising properties	: No data available.

9.2 Other information

No additional information available

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SECTION 10 Stability and reactivity
10.1. Reactivity

Stable under normal conditions, handling and use.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Materials to avoid : Bases,
Strong oxidizers.

10.6. Hazardous decomposition products

Hazardous decomposition products : Carbon dioxide (CO₂), Carbon monoxide.

SECTION 11 Toxicological information
11.1. Information on toxicological effects

Toxicity information : This product is non-hazardous.

SECTION 12 Ecological information
12.1. Toxicity

No data available.

12.2. Persistence and degradability

No additional information available.

12.3. Bioaccumulative potential

No additional information available.

12.4. Mobility in soil

No additional information available.


12.5. Results of PBT and vPvB assessment

No additional information available.

12.6. Other adverse effects

No data available.

Ecological effects information : No data available.

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SECTION 13 Disposal considerations

13.1. Waste treatment methods

General Avoid release to the environment.
Dispose in a safe manner in accordance with local / national regulations.

SECTION 14 Transport information

14.1. UN Number

Not applicable

General information : Not classified as dangerous in the meaning of transport regulations.

14.2. UN Proper shipping name

Not applicable.

14.3. Transport Hazard Class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Not applicable.

14.6. Special precautions for user

Not applicable

SECTION 15 Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EU) No. 2015/830.
Ensure all national / local regulations are observed.

15.2. Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 Other information

Further information : The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Formedium Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

Revision : Complete SDS revision

End of document