

**MES Monohydrate****MES****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 : C<sub>6</sub>H<sub>13</sub>NO<sub>4</sub>S.H<sub>2</sub>O  
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.  
King's Lynn, England, PE31 6DJ  
Tel: +44(0)1485 609069  
Web: [www.Formedium.com](http://www.Formedium.com)  
E-mail: [info@formedium.com](mailto: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](http://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.

**MES Monohydrate****MES****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.

**MES Monohydrate****MES****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

**MES Monohydrate****MES****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

**MES Monohydrate****MES****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 (CO<sub>2</sub>), Carbon monoxide.

**SECTION 11 Toxicological information****11.1. Information on toxicological effects**

**Toxicity information** : This product is non-hazardous.

**11.2. Additional information****Endocrine disrupting properties**

: The Substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**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.

**12.7. Endocrine disrupting properties**

The Substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**MES Monohydrate****MES****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