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

1.1 Product identifier
- **Trade name:** MES free acid monohydrate
- **Article number:** 1306
- **CAS Number:** 145224-94-8
- **EC number:** 224-632-3

Registration number
A registration number is not available for this substance as the substance or its uses are exempted from registration or the annual tonnage does not require a registration.

1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

1.3 Details of the supplier of the safety data sheet
- **Manufacturer/Supplier:** Biosolve Chimie
  - 20 Rue Roger Husson, 57260 Dieuze, France
  - Tel: +33 3 878 675 80/81/82/83/84/85
  - Email: info@biosolvechimie.com
- **Biosolve B.V.**
  - Leenderweg 78, 5555 CE Valkenswaard, the Netherlands.
  - Tel: +31-(0)40-2071300
  - Fax:+31-(0)40-2048537
  - Email: info@biosolve-chemicals.com

Further information obtainable from: Product safety department.

1.4 Emergency telephone number:
For emergency telephone numbers of the poisons centers in Europe please use this link: http://www.eapcct.org/

*SECTION 2: Hazards identification*

2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008

GHS07

**Skin Irrit. 2** H315  Causes skin irritation.
**Eye Irrit. 2** H319  Causes serious eye irritation.
**STOT SE 3** H335  May cause respiratory irritation.

2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.

(Contd. on page 2)
**Safety data sheet**

*according to 1907/2006/EC, Article 31*

**Printing date 20.04.2018**

**Revision: 28.01.2018**

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**Trade name:** MES free acid monohydrate

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**Hazard pictograms**

![Pictogram](image)

GHS07

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**Signal word** Warning

**Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

---

**Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves / eye protection / face protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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**SECTION 3: Composition/information on ingredients**

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description**
  - 145224-94-8 MES free acid monohydrate
- **Identification number(s)**
  - EC number: 224-632-3

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**SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
  - **General information:** Immediately remove any clothing soiled by the product.
  - **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
  - **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
  - **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**
  - No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
  - No further relevant information available.
**SECTION 5: Firefighting measures**

- **5.1 Extinguishing media**
  - Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

- **5.2 Special hazards arising from the substance or mixture** 
  No further relevant information available.

- **5.3 Advice for firefighters**
  - Protective equipment: No special measures required.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**
  Not required.

- **6.2 Environmental precautions:**
  No special measures required.

- **6.3 Methods and material for containment and cleaning up:**
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.

- **6.4 Reference to other sections**
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling**
  - Avoid contact with skin and eyes.
  - Avoid inhalation of vapour or mist.
  - Keep away from sources of ignition - No smoking.
  - Ensure good ventilation/exhaustion at the workplace.

- **Information about fire - and explosion protection:**
  No special measures required.

- **7.2 Conditions for safe storage, including any incompatibilities**
  - Storage:
    - Requirements to be met by storerooms and receptacles:
      Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
    - Information about storage in one common storage facility:
      Not required.
    - Further information about storage conditions:
      Keep container tightly sealed.

- **7.3 Specific end use(s)**
  No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

- **8.1 Control parameters**
  - Ingredients with limit values that require monitoring at the workplace: Not required.
  - Additional information: The lists valid during the making were used as basis.

- **8.2 Exposure controls**
  - Personal protective equipment:
    - General protective and hygienic measures:
      Keep away from foodstuffs, beverages and feed.
      Immediately remove all soiled and contaminated clothing.

(Contd. on page 4)
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

**Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**Protection of hands:**

![Protective gloves]

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:**

![Tightly sealed goggles]

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**SECTION 9: Physical and chemical properties**

<table>
<thead>
<tr>
<th>9.1 Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Information</strong></td>
</tr>
<tr>
<td><strong>Appearance:</strong></td>
</tr>
<tr>
<td>Form: Powder</td>
</tr>
<tr>
<td>Colour: White</td>
</tr>
<tr>
<td>Odour: Characteristic</td>
</tr>
<tr>
<td>Odour threshold: Not determined.</td>
</tr>
<tr>
<td>pH-value: 3.6</td>
</tr>
<tr>
<td>Change in condition</td>
</tr>
<tr>
<td>Melting point/freezing point: &gt;300 °C</td>
</tr>
<tr>
<td>Initial boiling point and boiling range: Undetermined</td>
</tr>
<tr>
<td>Flash point: Not applicable.</td>
</tr>
<tr>
<td>Flammability (solid, gas): Product is not flammable.</td>
</tr>
<tr>
<td>Decomposition temperature: Not determined.</td>
</tr>
<tr>
<td>Auto-ignition temperature: Not determined.</td>
</tr>
<tr>
<td>Explosive properties: Product does not present an explosion hazard.</td>
</tr>
</tbody>
</table>
Safety data sheet
according to 1907/2006/EC, Article 31

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Revision: 28.01.2018

Trade name: MES free acid monohydrate

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
  - **Skin corrosion/irritation** Causes skin irritation.
  - **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
  - May cause respiratory irritation.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
**SECTION 12: Ecological information**

- **12.1 Toxicity**
  - *Aquatic toxicity:* No further relevant information available.

- **12.2 Persistence and degradability**
  - No further relevant information available.

- **12.3 Bioaccumulative potential**
  - No further relevant information available.

- **12.4 Mobility in soil**
  - No further relevant information available.

- **Additional ecological information:**
  - *General notes:* Not known to be hazardous to water.

- **12.5 Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.

- **12.6 Other adverse effects**
  - No further relevant information available.

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
  - **Recommendation:**
    - Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**
  - **HP 4** Irritant - skin irritation and eye damage
  - **HP 5** Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

- **Uncleaned packaging:**
  - **Recommendation:**
    - Disposal must be made according to official regulations.

**SECTION 14: Transport information**

- **14.1 UN-Number**
  - **ADR, ADN, IMDG, IATA**
    - Void

- **14.2 UN proper shipping name**
  - **ADR, ADN, IMDG, IATA**
    - Void

- **14.3 Transport hazard class(es)**
  - **ADR, ADN, IMDG, IATA**
    - Void

- **14.4 Packing group**
  - **ADR, IMDG, IATA**
    - Void

- **14.5 Environmental hazards:**
  - **Marine pollutant:**
    - No

- **14.6 Special precautions for user**
  - Not applicable.

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**
  - Not applicable.

- **UN "Model Regulation":**
  - Void
SECTION 15: Regulatory information

- Labelling according to Regulation (EC) No 1272/2008
  The substance is classified and labelled according to the CLP regulation.
- Hazard pictograms

GHS07

- Signal word: Warning
- Hazard statements
  H315 Causes skin irritation.
  H319 Causes serious eye irritation.
  H335 May cause respiratory irritation.
- Precautionary statements
  P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
  P280 Wear protective gloves / eye protection / face protection.
  P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  P405 Store locked up.
  P501 Dispose of contents/container in accordance with local/Regional/national/international regulations.

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I Substance is not listed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing SDS: Product safety department
- Contact: Product safety department

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

* Data compared to the previous version altered.