

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/18/2021

Reviewed on 05/18/2021

## 1 Identification

- **Product identifier**
- **Trade name:** MICHEL'S FIXATIVE
- **Article number:** 18040-05, 18040-10, 18040-20, MICHEL'S FIXATIVE
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS07

- **Signal word** Warning

- **Hazard-determining components of labeling:**

ammonium sulphate

- **Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

- **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves / eye protection / face protection.

If on skin: Wash with plenty of water.

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

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If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a poison center/doctor if you feel unwell.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 2

Fire = 0

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

7783-20-2	ammonium sulphate	>25- ≤50%
128-53-0	N-ethylmaleimide	≤2.5%

### 4 First-aid measures

· **Description of first aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

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.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

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- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **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.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

7783-20-2	ammonium sulphate	13 mg/m <sup>3</sup>
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- **PAC-2:**

7783-20-2	ammonium sulphate	140 mg/m <sup>3</sup>
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- **PAC-3:**

7783-20-2	ammonium sulphate	840 mg/m <sup>3</sup>
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## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Thorough dedusting.  
Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Breathing equipment:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
- **Form:** Liquid
- **Color:** Colorless
- **Odor:** Irritant
- **Odor threshold:** Not determined.
- **pH-value at 20 °C (68 °F):** 7
- **Change in condition**
- **Melting point/Melting range:** Undetermined.

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· <b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not determined.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not applicable.
· <b>Density at 20 °C (68 °F):</b>	1.2 g/cm <sup>3</sup> (10.014 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with</b>	
· <b>Water:</b>	Soluble.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Dynamic:</b>	Not applicable.
· <b>Kinematic:</b>	Not applicable.
· <b>Solvent content:</b>	
· <b>VOC content:</b>	0.00 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

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

## 11 Toxicological information

### · Information on toxicological effects

#### · Acute toxicity:

#### · LD/LC50 values that are relevant for classification:

7783-20-2 ammonium sulphate

Oral	LD50	2,840 mg/kg (rat)
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#### · Primary irritant effect:

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.

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- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

- |                                  |      |
|----------------------------------|------|
| · <b>UN-Number</b>               | Void |
| · <b>DOT, ADR, IMDG, IATA</b>    | Void |
| · <b>UN proper shipping name</b> | Void |
| · <b>DOT, ADR, IMDG, IATA</b>    | Void |

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- |  |                 |
|--|-----------------|
| <b>· Transport hazard class(es)</b>  |                 |
| <b>· DOT, ADR, ADN, IMDG, IATA</b>   |                 |
| <b>· Class</b>   | Void            |
| <b>· Packing group</b>   |                 |
| <b>· DOT, ADR, IMDG, IATA</b>  | Void            |
| <b>· Environmental hazards:</b>  | Not applicable. |
| <b>· Special precautions for user</b>  | Not applicable. |
| <b>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| <b>· UN "Model Regulation":</b>  | Void            |

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

- Section 355 (extremely hazardous substances):

None of the ingredients is listed.

- Section 313 (Specific toxic chemical listings):

7783-20-2 ammonium sulphate

- TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

- Hazardous Air Pollutants

None of the ingredients is listed.

- Proposition 65

- Chemicals known to cause cancer:

None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

- Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- Carcinogenic categories

- EPA (Environmental Protection Agency)

None of the ingredients is listed.

- TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

- NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

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· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard-determining components of labeling:**

*ammonium sulphate*

· **Hazard statements**

*Causes skin irritation.*

*Causes serious eye irritation.*

*May cause respiratory irritation.*

· **Precautionary statements**

*Avoid breathing dust/fume/gas/mist/vapors/spray*

*Wash thoroughly after handling.*

*Use only outdoors or in a well-ventilated area.*

*Wear protective gloves / eye protection / face protection.*

*If on skin: Wash with plenty of water.*

*IF INHALED: Remove person to fresh air and keep comfortable for breathing.*

*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*

*Continue rinsing.*

*Call a poison center/doctor if you feel unwell.*

*Specific treatment (see on this label).*

*Take off contaminated clothing and wash it before reuse.*

*If skin irritation occurs: Get medical advice/attention.*

*If eye irritation persists: Get medical advice/attention.*

*Store in a well-ventilated place. Keep container tightly closed.*

*Store locked up.*

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

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

## 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.*

· **Date of preparation / last revision** 05/18/2021 / -

· **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*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

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*OSHA: Occupational Safety Health**TLV: Threshold Limit Value**PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

US

# Safety Data Sheet

## according to WHS Regulations

Printing date 18.05.2021

Revision: 18.05.2021

### 1 Identification

- **Product identifier**
- **Trade name:** MICHEL'S FIXATIVE
- **Article number:** 18040-05, 18040-10, 18040-20, MICHEL'S FIXATIVE
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- ProSciTech Pty Ltd  
11 Carlton Street, Kirwan QLD 4817 Australia  
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Website: ems.proscitech.com
- Emgrid Australia Pty. Ltd.  
P.O. Box 118  
The Patch VIC 3792  
Australia  
Tel: 03 9752 1785  
Fax: 03 9752 1784  
Website: www.emgrid.com.au
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 Hazard(s) Identification

- **Classification of the substance or mixture**



GHS07

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

- **Label elements**
- **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



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- **Signal word** Warning
- **Hazard-determining components of labelling:**  
ammonium sulphate
- **Hazard statements**  
Causes skin irritation.  
Causes serious eye irritation.  
May cause respiratory irritation.
- **Precautionary statements**  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wash thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves / eye protection / face protection.  
IF ON SKIN: Wash with plenty of water.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
Call a POISON CENTER/doctor if you feel unwell.  
Specific treatment (see on this label).  
Take off contaminated clothing and wash it before reuse.  
If skin irritation occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition and Information on Ingredients

- **Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

7783-20-2	ammonium sulphate	>25- ≤50%
128-53-0	N-ethylmaleimide	≤2.5%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### 4 First Aid Measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
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.

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- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **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.

### 7 Handling and Storage

- **Handling:**
- **Precautions for safe handling**  
Thorough dedusting.  
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls and personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.

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# Safety Data Sheet

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Trade name: MICHEL'S FIXATIVE

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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing  
 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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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

## 9 Physical and Chemical Properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

- **Form:** Liquid
- **Colour:** Colourless
- **Odour:** Irritant
- **Odour threshold:** Not determined.

- **pH-value at 20 °C:** 7

- **Change in condition**

- **Melting point/freezing point:** Undetermined.
- **Initial boiling point and boiling range:** Undetermined.

- **Flash point:** Not applicable.

- **Flammability (solid, gas):** Not determined.

- **Decomposition temperature:** Not determined.

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· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Vapour pressure:</b>	Not applicable.
· <b>Density at 20 °C:</b>	1.2 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with water:</b>	Soluble.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Dynamic:</b>	Not applicable.
· <b>Kinematic:</b>	Not applicable.
· <b>Other information</b>	No further relevant information available.

### 10 Stability and Reactivity

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

### 11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**

#### · **LD/LC50 values relevant for classification:**

7783-20-2 ammonium sulphate

Oral	LD50	2,840 mg/kg (rat)
------	------	-------------------

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.

#### · **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful  
Irritant

AU

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# Safety Data Sheet

## according to WHS Regulations

Printing date 18.05.2021

Revision: 18.05.2021

Trade name: MICHEL'S FIXATIVE

(Contd. of page 5)

### 12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

· <b>UN-Number</b>	
· <b>ADG, IMDG, IATA</b>	not regulated
· <b>UN proper shipping name</b>	
· <b>ADG, IMDG, IATA</b>	not regulated
· <b>Transport hazard class(es)</b>	
· <b>ADG, ADN, IMDG, IATA</b>	
· <b>Class</b>	not regulated
· <b>Packing group</b>	
· <b>ADG, IMDG, IATA</b>	not regulated
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b>	Not applicable.
· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>UN "Model Regulation":</b>	not regulated

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# Safety Data Sheet

## according to WHS Regulations

Printing date 18.05.2021

Revision: 18.05.2021

Trade name: MICHEL'S FIXATIVE

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### 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Australian Inventory of Industrial Chemicals**

All ingredients are listed.

· **Standard for the Uniform Scheduling of Medicines and Poisons**

None of the ingredients is listed.

· **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard-determining components of labelling:**

ammonium sulphate

· **Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

· **Precautionary statements**

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

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves / eye protection / face protection.

IF ON SKIN: Wash with plenty of water.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

Continue rinsing.

Call a POISON CENTER/doctor if you feel unwell.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

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

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

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

### 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.

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# Safety Data Sheet

## according to WHS Regulations

Printing date 18.05.2021

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**Trade name: MICHEL'S FIXATIVE**

(Contd. of page 7)

**· 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*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A*

*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

AU

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/18/2021

Reviewed on 05/18/2021

### 1 Identification

- **Product identifier**
- **Trade name:** MICHEL'S FIXATIVE
- **Article number:** 18040-05, 18040-10, 18040-20, MICHEL'S FIXATIVE
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
 Electron Microscopy Sciences  
 1560 Industry Road  
 USA-Hatfield, PA 19440  
 Tel: 215-412-8400 Fax: 215-412-8450  
 email: sgkcck@aol.com  
 www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
 ChemTrec 1-800-424-9300 Contract CCN7661  
 1-703-527-3887

### 2 Hazard identification

- **Classification of the substance or mixture**



GHS07

Skin Irritation - Category 2

H315 Causes skin irritation.

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure -  
Category 3

H335 May cause respiratory irritation.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS07

- **Signal word** Warning

- **Hazard-determining components of labeling:**

ammonium sulphate

- **Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

- **Precautionary statements**

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

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin: Wash with plenty of water.

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CA

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/18/2021

Reviewed on 05/18/2021

Trade name: MICHEL'S FIXATIVE

(Contd. of page 1)

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing.

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

Call a poison center/doctor if you feel unwell.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 2

Fire = 0

Reactivity = 0

### 3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

7783-20-2	ammonium sulphate	30-60% w/w *
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\* Actual concentration ranges are withheld as a trade secret.

### 4 First-aid measures

· **Description of first aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

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.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

CA

(Contd. on page 3)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/18/2021

Reviewed on 05/18/2021

Trade name: MICHEL'S FIXATIVE

(Contd. of page 2)

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **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.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Thorough dedusting.  
Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.

(Contd. on page 4)

CA

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/18/2021

Reviewed on 05/18/2021

Trade name: MICHEL'S FIXATIVE

(Contd. of page 3)

- **Breathing equipment:**

*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.*

- **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.*

- **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

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

· <b>Form:</b>	Liquid
· <b>Color:</b>	Colorless
· <b>Odor:</b>	Irritant
· <b>Odor threshold:</b>	Not determined.

· <b>pH-value at 20 °C:</b>	7
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- **Change in condition**

· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	Undetermined.

· <b>Flash point:</b>	Not applicable.
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· <b>Flammability (solid, gaseous):</b>	Not determined.
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· <b>Decomposition temperature:</b>	Not determined.
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· <b>Auto igniting:</b>	Product is not selfigniting.
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· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
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- **Explosion limits:**

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

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CA

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/18/2021

Reviewed on 05/18/2021

Trade name: MICHEL'S FIXATIVE

(Contd. of page 4)

- |   |  |
|---|--|
| · <b>Vapor pressure:</b>                          | Not applicable.                            |
| · <b>Density at 20 °C:</b>                        | 1.2 g/cm <sup>3</sup>                      |
| · <b>Relative density</b>                         | Not determined.                            |
| · <b>Vapor density</b>                            | Not applicable.                            |
| · <b>Evaporation rate</b>                         | Not applicable.                            |
| · <b>Solubility in / Miscibility with</b>         |  |
| · <b>Water:</b>                                   | Soluble.                                   |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                            |
| · <b>Viscosity:</b>                               |  |
| · <b>Dynamic:</b>                                 | Not applicable.                            |
| · <b>Kinematic:</b>                               | Not applicable.                            |
| · <b>Other information</b>                        | No further relevant information available. |

### 10 Stability and reactivity

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

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· <b>LD/LC50 values that are relevant for classification:</b>
---

7783-20-2 ammonium sulphate
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Oral	LD50	2,840 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant

- **Carcinogenic categories**

· <b>IARC (International Agency for Research on Cancer)</b>
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None of the ingredients is listed.
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· <b>NTP (National Toxicology Program)</b>
--

None of the ingredients is listed.
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CA  
(Contd. on page 6)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/18/2021

Reviewed on 05/18/2021

Trade name: MICHEL'S FIXATIVE

(Contd. of page 5)

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
*Water hazard class 1 (Self-assessment): slightly hazardous for water*  
*Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
*Must not be disposed of together with household garbage. Do not allow product to reach sewage system.*
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

· <b>UN-Number</b>	
· <b>DOT/TDG, ADR, IMDG, IATA</b>	Void
· <b>UN proper shipping name</b>	
· <b>DOT/TDG, ADR, IMDG, IATA</b>	Void
· <b>Transport hazard class(es)</b>	
· <b>DOT, ADR, ADN, IMDG, IATA</b>	
· <b>Class</b>	Void
· <b>Packing group</b>	
· <b>DOT/TDG, ADR, IMDG, IATA</b>	Void
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b>	Not applicable.
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>UN "Model Regulation":</b>	Void

CA  
(Contd. on page 7)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/18/2021

Reviewed on 05/18/2021

Trade name: MICHEL'S FIXATIVE

(Contd. of page 6)

### 15 Regulatory information

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

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

7783-20-2 ammonium sulphate

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Canadian substance listings:

· Canadian Domestic Substances List (DSL)

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%)

All ingredients are listed.

· GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS07

· Signal word Warning

· Hazard-determining components of labeling:

ammonium sulphate

· Hazard statements

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

· Precautionary statements

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

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin: Wash with plenty of water.

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

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

Continue rinsing.

Call a poison center/doctor if you feel unwell.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

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

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**Safety Data Sheet**  
**according to HPR, Schedule 1**

Printing date 05/18/2021

Reviewed on 05/18/2021

**Trade name: MICHEL'S FIXATIVE**

(Contd. of page 7)

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

**· Date of the latest revision of the safety data sheet** 05/18/2021 / -**· Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

CA

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 18.05.2021

Revision: 18.05.2021

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

- **1.1 Product identifier**
- **Trade name:** MICHEL'S FIXATIVE
- **Article number:** 18040-05, 18040-10, 18040-20, MICHEL'S FIXATIVE
- **UFI:** HVJ1-50GX-A005-7963
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 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 product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labelling:**  
ammonium sulphate
- **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.

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# Safety data sheet

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

Printing date 18.05.2021

Revision: 18.05.2021

**Trade name: MICHEL'S FIXATIVE**

(Contd. of page 1)

- 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.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 7783-20-2	ammonium sulphate	>25- ≤50%
EINECS: 231-984-1	⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. 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:** Mouth respiratory protective device.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

(Contd. on page 3)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.05.2021

Revision: 18.05.2021

Trade name: MICHEL'S FIXATIVE

(Contd. of page 2)

- **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**  
Thorough dedusting.  
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:** No special requirements.
- **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

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **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  
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

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- **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **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

## SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

· <b>Form:</b>	Liquid
· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Irritant
· <b>Odour threshold:</b>	Not determined.

· <b>pH-value at 20 °C:</b>	7
-----------------------------	---

- **Change in condition**

· <b>Melting point/freezing point:</b>	Undetermined.
· <b>Initial boiling point and boiling range:</b>	Undetermined.

· <b>Flash point:</b>	Not applicable.
-----------------------	-----------------

· <b>Flammability (solid, gas):</b>	Not determined.
-------------------------------------	-----------------

· <b>Decomposition temperature:</b>	Not determined.
-------------------------------------	-----------------

· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
-------------------------------------	------------------------------

· <b>Explosive properties:</b>	Product does not present an explosion hazard.
--------------------------------	---

- **Explosion limits:**

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

· <b>Vapour pressure:</b>	Not applicable.
---------------------------	-----------------

· <b>Density at 20 °C:</b>	1.2 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.

- **Solubility in / Miscibility with**

· <b>water:</b>	Soluble.
-----------------	----------

· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
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- **Viscosity:**

· <b>Dynamic:</b>	Not applicable.
· <b>Kinematic:</b>	Not applicable.

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- **9.2 Other information** No further relevant information available.

### 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.
- |  |                        |
|--|------------------------|
| · <b>LD/LC50 values relevant for classification:</b> |                        |
| 7783-20-2 ammonium sulphate                          |                        |
| Oral   | LD50 2,840 mg/kg (rat) |
- **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 (carcinogenicity, 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:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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- **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.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

- |  |                 |
|--|-----------------|
| · <b>14.1 UN-Number</b>  |                 |
| · <b>ADR, IMDG, IATA</b>   | not regulated   |
| · <b>14.2 UN proper shipping name</b>  |                 |
| · <b>ADR, IMDG, IATA</b>   | not regulated   |
| · <b>14.3 Transport hazard class(es)</b>   |                 |
| · <b>ADR, ADN, IMDG, IATA</b>  |                 |
| · <b>Class</b>   | not regulated   |
| · <b>14.4 Packing group</b>  |                 |
| · <b>ADR, IMDG, IATA</b>   | not regulated   |
| · <b>14.5 Environmental hazards:</b>   | Not applicable. |
| · <b>14.6 Special precautions for user</b>                                       | Not applicable. |
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>  | not regulated   |

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 65
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**  
None of the ingredients is 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.

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**· Relevant phrases***H315 Causes skin irritation.**H319 Causes serious eye irritation.**H335 May cause respiratory irritation.***· 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**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**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*

GB



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### ODDÍL 1: Identifikace látky/směsi a společnosti/podniku

- **1.1 Identifikátor výrobku**
- **Obchodní označení:** MICHEL'S FIXATIVE
- **Číslo výrobku:** 18040-05, 18040-10, 18040-20, MICHEL'S FIXATIVE
- **UFI:** HVJ1-50GX-A005-7963
- **1.2 Příslušná určená použití látky nebo směsi a nedoporučená použití**  
Další relevantní informace nejsou k dispozici.
- **Použití látky / přípravku** Laboratorní chemikálie
- **1.3 Podrobné údaje o dodavateli bezpečnostního listu**
- **Identifikace výrobce/dovozce:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Obor poskytující informace:** Product safety department
- **1.4 Telefonní číslo pro naléhavé situace:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### ODDÍL 2: Identifikace nebezpečnosti

- **2.1 Klasifikace látky nebo směsi**
- **Klasifikace v souladu s nařízením (ES) č. 1272/2008**



GHS07

- Skin Irrit. 2 H315 Dráždí kůži.
- Eye Irrit. 2 H319 Způsobuje vážné podráždění očí.
- STOT SE 3 H335 Může způsobit podráždění dýchacích cest.

- **2.2 Prvky označení**
- **Označování v souladu s nařízením (ES) č. 1272/2008** Produkt je klasifikován a označen podle nařízení CLP.
- **Výstražné symboly nebezpečnosti**



GHS07

- **Signální slovo** Varování
- **Nebezpečné komponenty k etiketování:**  
ammonium sulphate
- **Standardní věty o nebezpečnosti**  
H315 Dráždí kůži.  
H319 Způsobuje vážné podráždění očí.  
H335 Může způsobit podráždění dýchacích cest.
- **Pokyny pro bezpečné zacházení**  
P261 Zamezte vdechování prachu/dýmu/plynu/mlhy/par/aerosolů.  
P280 Používejte ochranné rukavice / ochranné brýle / obličejový štít.

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- (pokračování strany 1)
- P304+P340 **PŘI VDECHNUTÍ:** Přeneste osobu na čerstvý vzduch a ponechte ji v poloze usnadňující dýchání.
- P305+P351+P338 **PŘI ZASAŽENÍ OČÍ:** Několik minut opatrně vyplachujte vodou. Vyjměte kontaktní čočky, jsou-li nasazeny a pokud je lze vyjmout snadno. Pokračujte ve vyplachování.
- P405 Skladujte uzamčené.
- P501 Obsah/nádobu likvidujte v souladu s místními/regionálními/národními/mezinárodními předpisy.
- **2.3 Další nebezpečnost**
  - **Výsledky posouzení PBT a vPvB**
  - **PBT:** Nedá se použít.
  - **vPvB:** Nedá se použít.

### ODDÍL 3: Složení/informace o složkách

- **3.2 Chemická charakteristika: Směsi**
- **Popis:** Směs obsahuje následné látky bez nebezpečných příměsí.

· **Výrobek obsahuje tyto nebezpečné látky:**

CAS: 7783-20-2	ammonium sulphate	>25- ≤50%
EINECS: 231-984-1	⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	

- **Dodatečná upozornění:** Znění uvedených údajů o nebezpečnosti látky je uvedeno v kapitole 16.

### ODDÍL 4: Pokyny pro první pomoc

- **4.1 Popis první pomoci**
- **Všeobecné pokyny:**  
Příznaky otravy se mohou projevit až po mnoha hodinách, proto je nutný lékařský dohled nejméně 48 hodin po nehodě.
- **Při nadýchání:**  
Přívod čerstvého vzduchu, případně kyslíkový přístroj, teplo. Při déle trvajících potížích konzultovat lékaře.  
Při bezvědomí uložit a přepravit ve stabilní poloze na boku.
- **Při styku s kůží:** Ihned omýt vodou a mýdlem a dobře opláchnout.
- **Při zasažení očí:**  
Oči s otevřenými víčky vyplachovat po více minut proudem tekoucí vody. Při přetrvávajících potížích se poradit s lékařem.
- **Při požití:** Při přetrvávajících potížích konzultovat s lékařem.
- **4.2 Nejdůležitější akutní a opožděné symptomy a účinky** Další relevantní informace nejsou k dispozici.
- **4.3 Pokyn týkající se okamžité lékařské pomoci a zvláštního ošetření**  
Další relevantní informace nejsou k dispozici.

### ODDÍL 5: Opatření pro hašení požáru

- **5.1 Hasiva**
- **Vhodná hasiva:** Způsob hašení přizpůsobit podmínkám v okolí.
- **5.2 Zvláštní nebezpečnost vyplývající z látky nebo směsi** Další relevantní informace nejsou k dispozici.
- **5.3 Pokyny pro hasiče**
- **Zvláštní ochranné prostředky pro hasiče:** Použít ochranný dýchací přístroj.

### ODDÍL 6: Opatření v případě náhodného úniku

- **6.1 Opatření na ochranu osob, ochranné prostředky a nouzové postupy** Není nutné.

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- **6.2 Opatření na ochranu životního prostředí:**  
Nenechat proniknout do kanalizace/povrchových vod/podzemních vod.
- **6.3 Metody a materiál pro omezení úniku a pro čištění:**  
Kontaminovaný materiál odstranit jako odpad podle bodu 13.  
Zajistit dostatečné větrání.
- **6.4 Odkaz na jiné oddíly**  
Informace o bezpečném zacházení viz kapitola 7.  
Informace o osobní ochranné výstroji viz kapitola 8.  
Informace k odstranění viz kapitola 13.

### ODDÍL 7: Zacházení a skladování

- **7.1 Opatření pro bezpečné zacházení**  
Dobré odprašování.  
Na pracovišti zabezpečit dobré větrání a odsávání.
- **Upozornění k ochraně před ohněm a explozí:** Nejsou nutná žádná zvláštní opatření.
- **7.2 Podmínky pro bezpečné skladování látek a směsí včetně neslučitelných látek a směsí**
- **Pokyny pro skladování:**
- **Požadavky na skladovací prostory a nádoby:** Žádné zvláštní požadavky.
- **Upozornění k hromadnému skladování:** Není nutné.
- **Další údaje k podmínkám skladování:** Nádrž držet neprodyšně uzavřenou.
- **7.3 Specifické konečné / specifická konečná použití** Další relevantní informace nejsou k dispozici.

### ODDÍL 8: Omezování expozice / osobní ochranné prostředky

- **Technická opatření:** Žádné další údaje, viz bod 7.
- **8.1 Kontrolní parametry**
- **Kontrolní parametry:**  
Produkt neobsahuje žádná relevantní množství látek, u kterých se musí kontrolovat hraniční hodnoty na pracovišti.
- **Další upozornění:** Jako podklad sloužily při zhotovení platné listiny.
- **8.2 Omezování expozice**
- **Osobní ochranné prostředky:**
- **Všeobecná ochranná a hygienická opatření:**  
Zdržovat od potravin, nápojů a krmiv.  
Zašpiněné, nasáknuté šaty ihned vysvléci.  
Před přestávkami a po práci umýt ruce.  
Zamezit styku s pokožkou a zrakem.
- **Ochrana dýchacích orgánů:**  
Při krátkodobém nebo nízkém zatížení použít dýchací přístroj s filtrem, při intenzivním nebo delším zatížení se musí použít dýchací přístroj nezávislý na okolním vzduchu.
- **Ochrana rukou:**



Ochranné rukavice

Materiál rukavic musí být nepropustný a odolný proti produktu / látce / směsi.  
Vzhledem k tomu, že chybí testy, není možné doporučit materiál rukavic pro produkt / přípravek / chemickou směs.  
Výběr materiálu rukavic proveďte podle času průniku, permeability a degradace.

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· **Materiál rukavic**

Správný výběr rukavic nezávisí jen na materiálu, ale také na dalších kritériích, která se liší podle výrobce. Protože je výrobek směs více látek, nelze materiál rukavic předem vypočítat a je nutno udělat před použitím zkoušku.

· **Doba průniku materiálem rukavic**

Je nutno u výrobce rukavic zjistit a dodržovat přesné časy průniku materiálem ochranných rukavic.

· **Ochrana očí:**



Uzavřené ochranné brýle

### ODDÍL 9: Fyzikální a chemické vlastnosti

· **9.1 Informace o základních fyzikálních a chemických vlastnostech**

· **Všeobecné údaje**

· **Vzhled:**

· **Skupenství:**

Tekutina

· **Barva:**

Bezbarvá

· **Zápach:**

Dráždivý

· **Prahová hodnota zápachu:**

Není určeno.

· **Hodnota pH při 20 °C:**

7

· **Změna stavu**

· **Bod tání/bod tuhnutí:**

Není určeno.

· **Počáteční bod varu a rozmezí bodu varu:**

Není určeno.

· **Bod vzplanutí:**

Nedá se použít.

· **Hořlavost (pevné látky, plyny):**

Není určeno.

· **Teplota rozkladu:**

Není určeno.

· **Teplota samovznícení:**

Produkt není samozápalný.

· **Výbušné vlastnosti:**

U produktu nehrozí nebezpečí exploze.

· **Meze výbušnosti:**

· **Dolní mez:**

Není určeno.

· **Horní mez:**

Není určeno.

· **Tlak páry:**

Nedá se použít.

· **Hustota při 20 °C:**

1,2 g/cm<sup>3</sup>

· **Relativní hustota**

Není určeno.

· **Hustota páry:**

Nedá se použít.

· **Rychlost odpařování**

Nedá se použít.

· **Rozpustnost ve / směsitelnost s**

· **vodě:**

Rozpustná.

· **Rozdělovací koeficient: n-oktanol/voda:**

Není určeno.

· **Viskozita:**

· **Dynamicky:**

Nedá se použít.

· **Kinematicky:**

Nedá se použít.

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## · 9.2 Další informace

Další relevantní informace nejsou k dispozici.

### ODDÍL 10: Stálost a reaktivita

- 10.1 Reaktivita Další relevantní informace nejsou k dispozici.
- 10.2 Chemická stabilita
- Termický rozklad / Podmínky, kterých je nutno se vyvarovat:  
Nedochází k rozkladu při doporučeném způsobu použití.
- 10.3 Možnost nebezpečných reakcí Žádné nebezpečné reakce nejsou známy.
- 10.4 Podmínky, kterým je třeba zabránit Další relevantní informace nejsou k dispozici.
- 10.5 Neslučitelné materiály: Další relevantní informace nejsou k dispozici.
- 10.6 Nebezpečné produkty rozkladu: Nejsou známy žádné nebezpečné produkty při rozkladu.

### ODDÍL 11: Toxikologické informace

- 11.1 Informace o toxikologických účincích
  - Akutní toxicita Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
  - Zařazení relevantní hodnoty LD/LC 50:
- |                             |      |                   |
|-----------------------------|------|-------------------|
| 7783-20-2 ammonium sulphate |      |                   |
| Orálně                      | LD50 | 2.840 mg/kg (rat) |
- Primární dráždivé účinky:
  - Žíravost/dráždivost pro kůži  
Dráždí kůži.
  - Vážné poškození očí / podráždění očí  
Způsobuje vážné podráždění očí.
  - Senzibilizace dýchacích cest / senzibilizace kůže  
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
  - Účinky CMR (karcinogenita, mutagenita a toxicita pro reprodukci)
  - Mutagenita v zárodečných buňkách Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
  - Karcinogenita Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
  - Toxicita pro reprodukci Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
  - Toxicita pro specifické cílové orgány – jednorázová expozice  
Může způsobit podráždění dýchacích cest.
  - Toxicita pro specifické cílové orgány – opakovaná expozice  
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
  - Nebezpečnost při vdechnutí Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.

### ODDÍL 12: Ekologické informace

- 12.1 Toxicita
- Aquatická toxicita: Další relevantní informace nejsou k dispozici.
- 12.2 Perzistence a rozložitelnost Další relevantní informace nejsou k dispozici.
- 12.3 Bioakumulační potenciál Další relevantní informace nejsou k dispozici.
- 12.4 Mobilita v půdě Další relevantní informace nejsou k dispozici.
- Další ekologické údaje:
- Všeobecná upozornění:  
Třída ohrožení vody 1 (Samozářazení): slabé ohrožení vody  
Nesmí se dostat nezředěný nebo ve větším množství do spodní vody, povodí nebo kanalizace.

(pokračování na straně 6)

# Bezpečnostní list

## podle 1907/2006/ES, Článek 31

Datum vydání: 18.05.2021

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Obchodní označení: MICHEL'S FIXATIVE

(pokračování strany 5)

- **12.5 Výsledky posouzení PBT a vPvB**
- **PBT:** Nedá se použít.
- **vPvB:** Nedá se použít.
- **12.6 Jiné nepříznivé účinky** Další relevantní informace nejsou k dispozici.

### ODDÍL 13: Pokyny pro odstraňování

- **13.1 Metody nakládání s odpady**
- **Doporučení:** Nesmí se odstraňovat společně s odpady z domácnosti. Nepřipustit únik do kanalizace.
- **Kontaminované obaly:**
- **Doporučení:** Odstranění podle příslušných předpisů.
- **Doporučený čisticí prostředek:** Voda, případně s přísadami čisticích prostředků.

### ODDÍL 14: Informace pro přepravu

- |   |                 |
|---|-----------------|
| · <b>14.1 UN číslo</b>  |                 |
| · <b>ADR, IMDG, IATA</b>  | odpadá          |
| · <b>14.2 Oficiální (OSN) pojmenování pro přepravu</b>                        |                 |
| · <b>ADR, IMDG, IATA</b>  | odpadá          |
| · <b>14.3 Třída/třídy nebezpečnosti pro přepravu</b>                          |                 |
| · <b>ADR, ADN, IMDG, IATA</b>   |                 |
| · <b>třída</b>  | odpadá          |
| · <b>14.4 Obalová skupina</b>   |                 |
| · <b>ADR, IMDG, IATA</b>  | odpadá          |
| · <b>14.5 Nebezpečnost pro životní prostředí:</b>                             | Nedá se použít. |
| · <b>14.6 Zvláštní bezpečnostní opatření pro uživatele</b>                    | Nedá se použít. |
| · <b>14.7 Hromadná přeprava podle přílohy II úmluvy MARPOL a předpisu IBC</b> | Nedá se použít. |
| · <b>UN "Model Regulation":</b>   | odpadá          |

### ODDÍL 15: Informace o předpisech

- **15.1 Předpisy týkající se bezpečnosti, zdraví a životního prostředí/specifické právní předpisy týkající se látky nebo směsi**
- **Rady 2012/18/EU**
- **Nebezpečné látky jmenovitě uvedené - PŘÍLOHA I** Žádná z obsažených látek není na seznamu.
- **Rady (ES) č. 1907/2006 PŘÍLOHA XVII** Omezující podmínky: 65
- **Směrnice 2011/65/EU o omezení používání některých nebezpečných látek v elektrických a elektronických zařízeních - Příloha II**
- **Žádná z obsažených látek není na seznamu.**
- **15.2 Posouzení chemické bezpečnosti:** Posouzení chemické bezpečnosti nebylo provedeno.

CZ

(pokračování na straně 7)

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## ODDÍL 16: Další informace

Údaje se opírají o dnešní stav našich vědomostí, nepředstavují však záruku vlastností produktu a nevznikají tak žádné smluvní právní vztahy.

### · Relevantní věty

H315 Dráždí kůži.

H319 Způsobuje vážné podráždění očí.

H335 Může způsobit podráždění dýchacích cest.

### · Zkratky a akronymy:

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

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Žíravost/dráždivost pro kůži – Kategorie 2

Eye Irrit. 2: Vážné poškození očí / podráždění očí – Kategorie 2

STOT SE 3: Toxicita pro specifické cílové orgány (jednorázová expozice) – Kategorie 3



# Veiligheidsinformatieblad volgens 1907/2006/EG, Artikel 31

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## RUBRIEK 1: Identificatie van de stof of het mengsel en van de vennootschap/onderneming

- **1.1 Productidentificatie**
- **Handelsnaam:** MICHEL'S FIXATIVE
- **Artikelnummer:** 18040-05, 18040-10, 18040-20, MICHEL'S FIXATIVE
- **UFI:** HVJ1-50GX-A005-7963
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**  
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- Aurion  
Binnenhaven 5  
6709 PD Wageningen  
The Netherlands  
Tel: 31 317 415094  
Fax: 31 317 415955  
email: info@aurion.nl
- **Inlichtingengevende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## RUBRIEK 2: Identificatie van de gevaren

- **2.1 Indeling van de stof of het mengsel**
- **Indeling overeenkomstig Verordening (EG) nr. 1272/2008**



GHS07

Skin Irrit. 2 H315 Veroorzaakt huidirritatie.  
Eye Irrit. 2 H319 Veroorzaakt ernstige oogirritatie.  
STOT SE 3 H335 Kan irritatie van de luchtwegen veroorzaken.

- **2.2 Etiketteringselementen**
- **Etikettering overeenkomstig Verordening (EG) nr. 1272/2008**  
Het product is geïdentificeerd en geëtiketteerd volgens de CLP-verordening.
- **Gevarenpictogrammen**



GHS07

- **Signaalwoord** Waarschuwing
- **Gevaaraanduidende componenten voor de etikettering:**  
ammoniumsulfaat

(Vervolg op blz. 2)



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(Vervolg van blz. 1)

- **Gevarenaanduidingen**

- H315 Veroorzaakt huidirritatie.
- H319 Veroorzaakt ernstige oogirritatie.
- H335 Kan irritatie van de luchtwegen veroorzaken.

- **Veiligheidsaanbevelingen**

- P261 Inademing van stoff/rook/gas/nevel/damp/spuitnevel vermijden.
- P280 Beschermende handschoenen / oogbescherming / gelaatsbescherming dragen.
- P304+P340 NA INADEMING: de persoon in de frisse lucht brengen en ervoor zorgen dat deze gemakkelijk kan ademen.
- P305+P351+P338 BIJ CONTACT MET DE OGEN: voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.
- P405 Achter slot bewaren.
- P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

- **2.3 Andere gevaren**


- **Resultaten van PBT- en zPzB-beoordeling**

- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.

### RUBRIEK 3: Samenstelling en informatie over de bestanddelen

- **3.2 Chemische karakterisering: Mengsels**
- **Beschrijving:** Mengsel van na elkaar aangevoerde stoffen met ongevaarlijke bijmengingen.

- **Gevaarlijke inhoudstoffen:**

CAS: 7783-20-2	ammoniumsulfaat	>25-≤50%
EINECS: 231-984-1	 Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	

- **Aanvullende gegevens:**

De woordelijke inhoud van de opgegeven aanwijzingen inzake de mogelijke gevaren is te vinden in hoofdstuk 16.

### RUBRIEK 4: Eerstehulpmaatregelen

- **4.1 Beschrijving van de eerstehulpmaatregelen**
- **Algemene informatie:**  
Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.
- **Na het inademen:**  
Frisse lucht toedienen, eventueel beademing, warmte. Wanneer de klachten niet ophouden, een arts raadplegen.  
Bij bewusteloosheid ligging en vervoer in stabiele zijligging.
- **Na huidcontact:** Onmiddellijk met water en zeep afwassen en goed naspoelen.
- **Na oogcontact:**  
De ogen gedurende verscheidene minuten onder stromend water afspoelen terwijl de oogspleet geopend blijft. Bij aanhoudende klachten een dokter raadplegen.
- **Na inslikken:** Als de klachten niet minderen, een arts raadplegen
- **4.2 Belangrijkste acute en uitgestelde symptomen en effecten** Geen verdere relevante informatie verkrijgbaar.
- **4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling**  
Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 5: Brandbestrijdingsmaatregelen

- **5.1 Blusmiddelen**
- **Geschikte blusmiddelen:** Brandblusmaatregelen op omgeving afstemmen.

(Vervolg op blz. 3)

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- **5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**  
Geen verdere relevante informatie verkrijgbaar.
- **5.3 Advies voor brandweerlieden**
- **Speciale beschermende kleding:** Ademhalingstoestel aantrekken.

### RUBRIEK 6: Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermingsmiddelen en noodprocedures** Niet nodig.
- **6.2 Milieuvoorzorgsmaatregelen:** Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 Insluitings- en reinigingsmethoden en -materiaal:**  
Besmet materiaal zoals afval volgens punt 13 verwijderen.  
Voor voldoende ventilatie zorgen.
- **6.4 Verwijzing naar andere rubrieken**  
Informatie inzake veilig gebruik - zie hoofdstuk 7.  
Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.  
Informatie inzake berging - zie hoofdstuk 13.

### RUBRIEK 7: Hantering en opslag

- **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**  
Goed stofvrij maken.  
Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.
- **Informatie m.b.t. brand- en ontploffingsgevaar:** Geen bijzondere maatregelen noodzakelijk.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:** Tanks ondoordringbaar gesloten houden.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

- **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.
- **8.1 Controleparameters**
- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:**  
Het produkt bevat geen relevante hoeveelheden van stoffen, die met betrekking tot de werkplaatsen, qua grenswaarden gecontroleerd moeten worden.
- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.
- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**  
Verwijderd houden van eet- en drinkwaren.  
Verontreinigde kleding onmiddellijk uittrekken.  
Vóór de pauze en aan het einde van werktijd handen wassen.  
Aanraking met de ogen en de huid vermijden.
- **Ademhalingsbescherming:**  
Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingstoestel gebruiken.

(Vervolg op blz. 4)

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## · Handbescherming:



Veiligheidshandschoenen

Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.  
Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliënmengsel afgegeven worden.

Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.

## · Handschoenmateriaal

De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant. Aangezien het product uit meerdere stoffen is samengesteld, is de duurzaamheid van de handschoenmaterialen niet vooraf berekenbaar en moet derhalve vóór het gebruik worden getest.

## · Doordringingstijd van het handschoenmateriaal

De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.

## · Oogbescherming:



Nauw aansluitende veiligheidsbril

## RUBRIEK 9: Fysische en chemische eigenschappen

### · 9.1 Informatie over fysische en chemische basiseigenschappen

#### · Algemene gegevens

#### · Voorkomen:

- **Vorm:** Vloeistof
- **Kleur:** Kleurloos
- **Geur:** Irriterend
- **Geurdrempelwaarde:** Niet bepaald.

· **pH-waarde bij 20 °C:** 7

#### · Toestandsverandering

- **Smelt-/vriespunt:** Niet bepaald.
- **Beginkookpunt en kooktraject:** Niet bepaald.

· **Vlampunt:** Niet bruikbaar.

· **Ontvlambaarheid (vast, gas):** Niet bepaald.

· **Ontledingstemperatuur:** Niet bepaald.

· **Zelfontbrandingstemperatuur:** Het produkt ontbrandt niet uit zichzelf.

· **Ontploffingseigenschappen:** Het produkt is niet ontploffingsgevaarlijk.

#### · Ontploffingsgrenzen:

- **Onderste:** Niet bepaald.
- **Bovenste:** Niet bepaald.

· **Dampspanning:** Niet bruikbaar.

· **Dichtheid bij 20 °C:** 1,2 g/cm<sup>3</sup>

· **Relatieve dichtheid:** Niet bepaald.

(Vervolg op blz. 5)

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- |   |   |
|---|---|
| · <b>Dampdichtheid</b>                            | Niet bruikbaar.                                 |
| · <b>Verdampingssnelheid</b>                      | Niet bruikbaar.                                 |
| · <b>Oplosbaarheid in/mengbaarheid met Water:</b> | Oplosbaar.                                      |
| · <b>Verdelingscoëfficiënt: n-octanol/water:</b>  | Niet bepaald.                                   |
| · <b>Viscositeit</b>                              |   |
| · <b>Dynamisch:</b>                               | Niet bruikbaar.                                 |
| · <b>Kinematisch:</b>                             | Niet bruikbaar.                                 |
| · <b>9.2 Overige informatie</b>                   | Geen verdere relevante informatie verkrijgbaar. |

### RUBRIEK 10: Stabiliteit en reactiviteit

- **10.1 Reactiviteit** Geen verdere relevante informatie verkrijgbaar.
- **10.2 Chemische stabiliteit**
- **Thermische afbraak / te vermijden omstandigheden:** Geen afbraak bij gebruik volgens voorschrift.
- **10.3 Mogelijke gevaarlijke reacties** Geen gevaarlijke reacties bekend.
- **10.4 Te vermijden omstandigheden** Geen verdere relevante informatie verkrijgbaar.
- **10.5 Chemisch op elkaar inwerkende materialen:** Geen verdere relevante informatie verkrijgbaar.
- **10.6 Gevaarlijke ontledingsproducten:** Geen gevaarlijke ontbindingsproducten bekend.

### RUBRIEK 11: Toxicologische informatie

- **11.1 Informatie over toxicologische effecten**
- **Acute toxiciteit** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

#### · Indelingsrelevantie LD/LC50-waarden:

7783-20-2 ammoniumsulfaat

Oraal	LD50	2.840 mg/kg (rat)
-------	------	-------------------

- **Primaire aandoening:**
- **Huidcorrosie/-irritatie**  
Veroorzaakt huidirritatie.
- **Ernstig oogletsel/oogirritatie**  
Veroorzaakt ernstige oogirritatie.
- **Sensibilisatie van de luchtwegen/de huid**  
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Kankerverwekkendheid** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Giftigheid voor de voortplanting** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij eenmalige blootstelling**  
Kan irritatie van de luchtwegen veroorzaken.
- **STOT bij herhaalde blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

### RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.

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- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Verdere ecologische informatie:**
- **Algemene informatie:**  
Waterbezwaarlijkheid (NL): B(4) Weinig schadelijk voor in water levende organismen  
Gevaar voor water klasse 1 (D) (Zelfclassificatie): gevaar voor water klein  
Niet onverdund of in grote hoeveelheden lozen in grondwater, in oppervlaktewater of in de riolering.
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 13: Instructies voor verwijdering

- **13.1 Afvalverwerkingsmethoden**
- **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terecht komen.
- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.
- **Aanbevolen reinigingsmiddel:** Water, eventueel met toevoeging van reinigingsmiddelen.

### RUBRIEK 14: Informatie met betrekking tot het vervoer

· <b>14.1 VN-nummer</b>	
· <b>ADR, IMDG, IATA</b>	Niet van toepassing
· <b>14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN</b>	
· <b>ADR, IMDG, IATA</b>	Niet van toepassing
· <b>14.3 Transportgevaarklasse(n)</b>	
· <b>ADR, ADN, IMDG, IATA</b>	
· <b>klasse</b>	Niet van toepassing
· <b>14.4 Verpakkingsgroep:</b>	
· <b>ADR, IMDG, IATA</b>	Niet van toepassing
· <b>14.5 Milieugevaren:</b>	Niet bruikbaar.
· <b>14.6 Bijzondere voorzorgen voor de gebruiker</b>	Niet bruikbaar.
· <b>14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code</b>	Niet bruikbaar.
· <b>VN "Model Regulation":</b>	Niet van toepassing

### RUBRIEK 15: Regelgeving

- **15.1 Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel**
- **SZW-lijst van kankerverwekkende stoffen**  
geen der bestanddelen staat op de lijst.
- **SZW-lijst van mutagene stoffen**  
geen der bestanddelen staat op de lijst.

(Vervolg op blz. 7)

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(Vervolg van blz. 6)

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid**

geen der bestanddelen staat op de lijst.

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling**

geen der bestanddelen staat op de lijst.

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding**

geen der bestanddelen staat op de lijst.

· **Lijst Zeer Zorgwekkende Stoffen (ZZS)**

geen der bestanddelen staat op de lijst.

· **Lijst van Potentieel Zeer Zorgwekkende Stoffen**

geen der bestanddelen staat op de lijst.

· **Richtlijn 2012/18/EU**

· **Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I** geen der bestanddelen staat op de lijst.

· **Verordening (EG) nr. 1907/2006 BIJLAGE XVII** Beperkingsvoorwaarden: 65

· **Richtlijn 2011/65/EU betreffende beperking van het gebruik van bepaalde gevaarlijke stoffen in elektrische en elektronische apparatuur - Bijlage II**

geen der bestanddelen staat op de lijst.

· **Nationale voorschriften:**

· **Gevaarklasse v. water:** Waterbezwaarlijkheid (NL): B(4) Weinig schadelijk voor in water levende organismen

· **15.2 Chemischeveiligheidsbeoordeling:** Een chemische veiligheidsbeoordeling is niet uitgevoerd.

## RUBRIEK 16: Overige informatie

Deze gegevens zijn gebaseerd op de huidige stand van onze kennis. Zij beschrijven echter geen garantie van produkteigenschappen en vestigen geen contractuele rechtsbetrekking.

· **Relevante zinnen**

H315 Veroorzaakt huidirritatie.

H319 Veroorzaakt ernstige oogirritatie.

H335 Kan irritatie van de luchtwegen veroorzaken.

· **Afkortingen en acroniemen:**

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

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Huidcorrosie/-irritatie – Categorie 2

Eye Irrit. 2: Ernstig oogletsel/oogirritatie – Categorie 2

STOT SE 3: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 3



# Käyttöturvallisuustiedote

## 1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 18.05.2021

Tarkistus: 18.05.2021

### KOHTA 1: Aineen tai seoksen ja yhtiön tai yrityksen tunnistetiedot

- **1.1 Tuotetunniste**
- **Kauppanimike:** MICHEL'S FIXATIVE
- **Artikkelinumero:** 18040-05, 18040-10, 18040-20, MICHEL'S FIXATIVE
- **UFI:** HVJ1-50GX-A005-7963
- **1.2 Aineen tai seoksen merkitykselliset tunnistetut käytöt ja käytöt, joita ei suositella**  
Merkittäviä lisätietoja ei ole saatavilla.
- **Aineen / valmisteen käyttö** Laboratoriokemikaalit
- **1.3 Käyttöturvallisuustiedotteen toimittajan tiedot**
- **Valmistaja/toimittaja:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Tietoja antaa:** Product safety department
- **1.4 Hätäpuhelinnumero:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### KOHTA 2: Vaaran yksilöinti

- **2.1 Aineen tai seoksen luokitus**
- **Luokitus asetuksen (EY) N:o 1272/2008 mukaisesti**



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Skin Irrit. 2 H315 Ärsyttää ihoa.  
Eye Irrit. 2 H319 Ärsyttää voimakkaasti silmiä.  
STOT SE 3 H335 Saattaa aiheuttaa hengitysteiden ärsytystä.

- **2.2 Merkinnät**
- **Merkinnät asetuksen (EY) N:o 1272/2008 mukaisesti** Tuote on luokiteltu ja merkitty CLP-asetuksen mukaan.
- **Varoitusmerkit**



GHS07

- **Huomiosana** Varoitus
- **Vaaran määräävät komponentit etiketeissä:**  
ammonium sulphate
- **Vaaralausekkeet**  
H315 Ärsyttää ihoa.  
H319 Ärsyttää voimakkaasti silmiä.  
H335 Saattaa aiheuttaa hengitysteiden ärsytystä.
- **Turvalausekkeet**  
P261 Vältä pölyn/savun/kaasun/sumun/höyryn/suihkeen hengittämistä.  
P280 Käytä suojakäsineitä / silmiensuojainta / kasvonsuojainta.

(jatkuu sivulla 2)

# Käyttöturvallisuustiedote

## 1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 18.05.2021

Tarkistus: 18.05.2021

**Kauppanimike: MICHEL'S FIXATIVE**

(jatkuu sivulla 1)

- P304+P340 JOS KEMIKAALIA ON HENGITETTY: Siirrä henkilö raittiiseen ilmaan ja varmista vaivaton hengitys.
- P305+P351+P338 JOS KEMIKAALIA JOUTUU SILMIIN: Huuhto huolellisesti vedellä usean minuutin ajan. Poista mahdolliset piilolinssit, jos sen voi tehdä helposti. Jatka huuhtomista.
- P405 Varastoi lukitussa tilassa.
- P501 Hävitä säiliö(t) noudattaen paikallisia/alueellisia/kansallisia/kansainvälisiä määräyksiä.

- **2.3 Muut vaarat**
- **PBT- ja vPvB-arvioinnin tulokset**
- **PBT:** Ei voida käyttää.
- **vPvB:** Ei voida käyttää.

### KOHTA 3: Koostumus ja tiedot aineosista

- **3.2 Kemialliset ominaisuudet: Seokset**
- **Selostus:** Seuraavista aineista koostuva seos, jossa vaarattomia lisäaineita.

· **Sisältää vaarallisia aineita:**

CAS: 7783-20-2	ammonium sulphate	>25-≤50%
EINECS: 231-984-1	⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	

- **Lisätietoja:** Annettujen turvaohjeiden sanamuoto kappaleesta 16.

### KOHTA 4: Ensiaputoimenpiteet

- **4.1 Ensiaputoimenpiteiden kuvaus**
- **Yleisohjeet:**  
Myrkytysoireet voivat ilmaantua vasta useiden tuntien kuluttua. Tästä syystä henkilöt on pidettävä lääkärin tarkkailun alaisena ainakin 48 tuntia onnettomuuden jälkeen.
- **Hengitettynä:**  
Huolehdittava raittiin ilman saannista, tarvittaessa annettava tekohengitystä, pidettävä lämpimänä. Oireiden jatkuessa pyydettyä lääkärin apua.  
Tajuton pidettävä ja kuljetettava kyljellään.
- **Ihokosketuksessa:** Pestävä heti vedellä ja saippualla ja huuhdettava hyvin.
- **Aineen päästyä silmiin:**  
Silmiä huuhdotaan luomet auki juoksevan veden alla useita minutteja. Oireiden kestäessä käännytään lääkärin puoleen.
- **Nieltyä:** Käännyttävä lääkärin puoleen oireiden jatkuessa.
- **4.2 Tärkeimmät oireet ja vaikutukset, sekä välittömät että viivästyneet Merkittäviä lisätietoja ei ole saatavilla.**
- **4.3 Mahdollisesti tarvittavaa välitöntä lääketieteellistä apua ja erityishoitoa koskevat ohjeet**  
Merkittäviä lisätietoja ei ole saatavilla.

### KOHTA 5: Palontorjuntatoimenpiteet

- **5.1 Sammutusaineet**
- **Sopivat sammutusaineet:** Palontorjuntatoimenpiteet ympäristöä vastaavasti.
- **5.2 Aineesta tai seoksesta johtuvat erityiset vaarat** Merkittäviä lisätietoja ei ole saatavilla.
- **5.3 Palontorjuntaa koskevat ohjeet**
- **Erityinen suojavarustus:** Käytettävä hengityssuojainta.

### KOHTA 6: Toimenpiteet onnettomuuspäästöissä

- **6.1 Varotoimenpiteet, henkilönsuojaimet ja menettely hätätilanteessa** Ei tarvita.

(jatkuu sivulla 3)



# Käyttöturvallisuustiedote

## 1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 18.05.2021

Tarkistus: 18.05.2021

**Kauppanimike: MICHEL'S FIXATIVE**

(jatkuu sivulla 2)

- **6.2 Ympäristöön kohdistuvat varotoimet:** Estettävä pääsy viemäriin/pintavesiin/pohjaveteen.
- **6.3 Suojarakenteita ja puhdistusta koskevat menetelmät ja -välineet:**  
Saastunut aine on jätteenä hävitettävä kohdan 13 mukaisesti.  
Huolehdittava riittävästä tuuleutuksesta.
- **6.4 Viihtaukset muihin kohtiin**  
Turvallista käsittelyä koskevia ohjeita kappaleessa 7.  
Henkilökohtaista suojavarustusta koskevia ohjeita kappaleessa 8.  
Aineen hävitystä koskevia ohjeita kappaleessa 13.

### KOHTA 7: Käsittely ja varastointi

- **7.1 Turvallisen käsittelyn edellyttämät toimenpiteet**  
Hyvä pölynpoisto.  
Huolehdittava hyvästä tuuleutuksesta/imusta työpaikalla.
- **Palo- ja räjähdysuojaohteet:** Erikoistoimenpiteitä ei tarvita.
- **7.2 Turvallisen varastoinnin edellyttämät olosuhteet, mukaan luettuina yhteensopimattomuudet**
- **Varastointi:**
- **Varastotiloille ja säiliöille asetettavat vaatimukset:** Ei erikoisvaatimuksia.
- **Yhteisvarastointiohteet:** Ei tarvita.
- **Lisätietoja varastointiehtoihin:** Astiat on pidettävä tiiviisti suljettuina.
- **7.3 Erityinen loppukäyttö** Merkittäviä lisätietoja ei ole saatavilla.

### KOHTA 8: Altistumisen ehkäiseminen ja henkilösuojaimet

- **Lisäohjeita teknisten laitteiden varustukseen:** Ei muita tietoja, ks. kohta 7.
- **8.1 Valvontaa koskevat muuttajat**
- **Aineosat työpaikkakohtaisin valvottavin raja-arvo:**  
Tuote ei sisällä merkityksellisiä määriä aineita työpaikkakohtaisilla valvottavilla raja-arvoilla.
- **Lisäohjeet:** Tiedot perustuvat valmistushetkellä voimassaoleviin luetteloihin.
- **8.2 Altistumisen ehkäiseminen**
- **Henkilökohtainen suojavarustus:**
- **Yleiset suoja- ja hygieniatoimenpiteet:**  
Pidettävä loitolla elintarvikkeista, juomista ja rehuista.  
Likaantuneet, aineen saastuttamat vaatekappaleet on riisuttava välittömästi.  
Kädet on pestävä ennen taukoja ja työn päätyttyä.  
Vältettävä ihokosketusta ja kosketusta silmiin.
- **Hengityssuoja:**  
Lyhytaikaisessa tai vähäisessä altistuksessa hengityssuojasuodin; intensiivisessä tai pitkäaikaisessa rasituksessa ulkoilmasta riippumaton hengityssuojain.
- **Käsisuojus:**



Suojakäsineet

Käsin materiaalin tulee olla tuotetta/ainetta/valmistetta kestävä ja läpäisemätöntä.  
Puuttuvien testien vuoksi suositusta soveltavasta suojakäsine materiaalista tuotteelle/ valmistelle / kemikaalikohteelle ei voida antaa.  
Suojakäsine materiaalin valinnassa on otettava huomioon läpäisyajat, läpäisevyyskerroin ja kuluminen.

(jatkuu sivulla 4)

# Käyttöturvallisuustiedote

## 1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 18.05.2021

Tarkistus: 18.05.2021

Kauppanimike: MICHEL'S FIXATIVE

(jatkuu sivulla 3)

### · **Käsinmateriaali**

Soveltuvan käsinetyypin valikoima ei riipu yksinomaan materiaalista vaan myös muista laatuominaisuuksista ja vaihtelee eri valmistajilla. Koska tuote on valmiste, joka koostuu eri aineista, ei suojakäsinmateriaalin kestävyys ole ennalta arvioitavissa vaan pitää tarkistaa ennen käyttöä.

### · **Käsinmateriaalin läpäisy aika**

Tarkka läpäisy aika on selvitettävä suojakäsinvalmistajalta ja sitä on noudatettava.

### · **Silmäsuojus:**



Tiiviit suojalasit

## KOHTA 9: Fysikaaliset ja kemialliset ominaisuudet

### · **9.1 Fysikaalisia ja kemiallisia perusominaisuuksia koskevat tiedot**

#### · **Yleiset ohjeet**

#### · **Olomuoto:**

· **Muoto:** Neste

· **Väri:** Väritön

· **Haju:** Arsyttävä

· **Hajukynnys:** Ei määritetty.

· **pH-arvo 20 °C lämpötilassa:** 7

#### · **Tilanmuutos**

· **Sulamis- tai jäätymispiste:** Ei määritetty.

· **Kiehumispiste ja kiehumisalue:** Ei määritetty.

· **Leimahduspiste:** Ei voida käyttää.

· **Syttyvyys (kiinteät aineet, kaasut):** Ei määritetty.

· **Hajoamislämpötila:** Ei määritetty.

· **Itsesyttymislämpötila:** Tuote ei ole itsestään syttyvä.

· **Räjähävyys:** Tuote ei ole räjähdysvaarallinen.

#### · **Räjähdysrajat:**

· **Alempi:** Ei määritetty.

· **Ylempi:** Ei määritetty.

· **Höyrypaine:** Ei voida käyttää.

· **Tiheys 20 °C lämpötilassa:** 1,2 g/cm<sup>3</sup>

· **Suhteellinen tiheys** Ei määritetty.

· **Höyryntiheys:** Ei voida käyttää.

· **Haihtumisnopeus:** Ei voida käyttää.

#### · **Liukenevuus/sekoittuvuus**

· **veteen:** Liukeneva.

· **Jakautumiskerroin: n-oktanolivesi:** Ei määritetty.

#### · **Viskositeetti:**

· **Dynaaminen:** Ei voida käyttää.

· **Kinemaattinen:** Ei voida käyttää.

(jatkuu sivulla 5)

# Käyttöturvallisuustiedote

## 1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 18.05.2021

Tarkistus: 18.05.2021

Kauppanimike: MICHEL'S FIXATIVE

(jatkuu sivulla 4)

## · 9.2 Muut tiedot

Merkittäviä lisätietoja ei ole saatavilla.

### KOHTA 10: Stabiilisuus ja reaktiivisuus

- 10.1 Reaktiivisuus Merkittäviä lisätietoja ei ole saatavilla.
- 10.2 Kemiallinen stabiilisuus
- Terminen hajoavuus / vältettävät olosuhteet: Ei hajaantumista määräystenmukaisessa käytössä.
- 10.3 Vaarallisten reaktioiden mahdollisuus Ei tiedossa vaarallisia reaktioita.
- 10.4 Vältettävät olosuhteet Merkittäviä lisätietoja ei ole saatavilla.
- 10.5 Yhteensopimattomat materiaalit: Merkittäviä lisätietoja ei ole saatavilla.
- 10.6 Vaaralliset hajoamistuotteet: Tiedossa ei ole vaarallisia hajoamistuotteita.

### KOHTA 11: Myrkyllisyyteen liittyvät tiedot

- 11.1 Tiedot myrkyllisistä vaikutuksista
- Väliön myrkyllisyys Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.

## · Luokittelurelevantti LD/LC50-arvot:

7783-20-2 ammonium sulphate

Oraali LD50 2.840 mg/kg (rat)

- Ensisijainen ärsyttävä vaikutus:
- Ihosyövyttävyyksihoärsytys  
Ärsyttää ihoa.
- Vakava silmävaurio/silmä-ärsytys  
Ärsyttää voimakkaasti silmiä.
- Hengitysteiden tai ihon herkistyminen Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- CMR-vaikutukset eli syöpää aiheuttavat, perimää vaurioittavat ja lisääntymiselle vaaralliset vaikutukset
- Sukusolujen perimää vaurioittavat vaikutukset Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- Syöpää aiheuttavat vaikutukset Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- Lisääntymiselle vaaralliset vaikutukset Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- Elinkohtainen myrkyllisyys – kerta-altistuminen  
Saattaa aiheuttaa hengitysteiden ärsytystä.
- Elinkohtainen myrkyllisyys – toistuva altistuminen  
Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- Aspiraatiovaara Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.

### KOHTA 12: Tiedot vaarallisuudesta ympäristölle

- 12.1 Myrkyllisyys
- Vesimyrkyllisyys: Merkittäviä lisätietoja ei ole saatavilla.
- 12.2 Pysyvyys ja hajoavuus Merkittäviä lisätietoja ei ole saatavilla.
- 12.3 Biokertyvyys Merkittäviä lisätietoja ei ole saatavilla.
- 12.4 Liikkuvuus maaperässä Merkittäviä lisätietoja ei ole saatavilla.
- Ekologisia lisätietoja:
- Yleisohjeita:  
Vesistövaarallisuusluokka 1 (Oma luokitus): lievästi vesistöä vaarantava  
Estetään aineen pääsy ohentamattomana tai suurina määrinä pohjaveteen, vesistöihin, viemäristöön.
- 12.5 PBT- ja vPvB-arvioinnin tulokset
- PBT: Ei voida käyttää.
- vPvB: Ei voida käyttää.

(jatkuu sivulla 6)

## Käyttöturvallisuustiedote 1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 18.05.2021

Tarkistus: 18.05.2021

**Kauppanimike: MICHEL'S FIXATIVE**

(jatkuu sivulla 5)

- **12.6 Muut haitalliset vaikutukset** Merkittäviä lisätietoja ei ole saatavilla.

### KOHTA 13: Jätteiden käsittelyyn liittyvät näkökohdat

- **13.1 Jätteiden käsittelymenetelmät**
- **Suositus:** Ei voida hävittää yhdessä talousjätteiden kanssa. Ei saa päästää viemäristöön.
- **Puhdistamattomat pakkaukset:**
- **Suositus:** Hävitettävä virallisten määräysten mukaisesti.
- **Suosittelava puhdistusaine:** Vesi, johon tarvittaessa lisätään puhdistusaineita.

### KOHTA 14: Kuljetustiedot

- |   |                   |
|---|-------------------|
| · <b>14.1 YK-numero</b><br>· <b>ADR, IMDG, IATA</b>   | tarpeeton         |
| · <b>14.2 Kuljetuksessa käytettävä virallinen nimi</b><br>· <b>ADR, IMDG, IATA</b>            | tarpeeton         |
| · <b>14.3 Kuljetuksen vaaraluokka</b><br>· <b>ADR, ADN, IMDG, IATA</b><br>· <b>luokka</b>     | tarpeeton         |
| · <b>14.4 Pakkausryhmä</b><br>· <b>ADR, IMDG, IATA</b>  | tarpeeton         |
| · <b>14.5 Ympäristövaarat:</b>  | Ei voida käyttää. |
| · <b>14.6 Erityiset varotoimet käyttäjälle</b>  | Ei voida käyttää. |
| · <b>14.7 Kuljetus irtolastina Marpol-sopimuksen II liitteen ja IBC-säännösten mukaisesti</b> | Ei voida käyttää. |
| · <b>UN "Model Regulation":</b>   | tarpeeton         |

### KOHTA 15: Lainsäädäntöä koskevat tiedot

- **15.1 Nimenomaisesti ainetta tai seosta koskevat turvallisuus-, terveys- ja ympäristösäännökset tai -lainsäädäntö**
- **Direktiivi 2012/18/EU**
- **Nimetyt vaaralliset aineet - LIITE I** sisältäviä aineita ei ole lueteltu
- **NEUVOSTON ASETUS (EY) N:o 1907/2006 LIITE XVII** Rajoitusehdot: 65
- **Direktiivi 2011/65/EU** tiettyjen vaarallisten aineiden käytön rajoittamisesta sähkö- ja elektroniikkalaitteissa - **Liite II**  
sisältäviä aineita ei ole lueteltu
- **15.2 Kemikaaliturvallisuusarviointi:** Kemikaaliturvallisuusarviointia ei ole tehty.

### KOHTA 16: Muut tiedot

Annetut tiedot perustuvat tähänhetkisiin tietoihimme. Ne eivät kuitenkaan anna takuuta tuotteen ominaisuuksista eivätkä aikaansaa sopimuksellista oikeussuhdetta.

- **Asiaankuuluvat lausekkeet**  
H315 Ärsyttää ihoa.

(jatkuu sivulla 7)

**Käyttöturvallisuustiedote**  
**1907/2006/EY, 31 artikla mukainen**

Painatuspäivämäärä 18.05.2021

Tarkistus: 18.05.2021

**Kauppanimike: MICHEL'S FIXATIVE**

(jatkuu sivulla 6)

*H319 Ärsyttää voimakkaasti silmiä.**H335 Saattaa aiheuttaa hengitysteiden ärsytystä.***· Lyhenteet ja lyhytnimet:***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**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Skin Irrit. 2: Ihosöyvyttävyyssihoärsytys – Katgoria 2**Eye Irrit. 2: Vakava silmävaurio/silmä-ärsytys – Katgoria 2**STOT SE 3: Elinkohtainen myrkyllisyys (kerta-altistuminen) – Katgoria 3*

FI

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 18.05.2021

Révision: 18.05.2021

### RUBRIQUE 1: Identification de la substance/du mélange et de la société/l'entreprise

- **1.1 Identificateur de produit**
- **Nom du produit:** MICHEL'S FIXATIVE
- **Code du produit:** 18040-05, 18040-10, 18040-20, MICHEL'S FIXATIVE
- **UFI:** HVJ1-50GX-A005-7963
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**  
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### RUBRIQUE 2: Identification des dangers

- **2.1 Classification de la substance ou du mélange**
- **Classification selon le règlement (CE) n° 1272/2008**



GHS07

- Skin Irrit. 2 H315 Provoque une irritation cutanée.
- Eye Irrit. 2 H319 Provoque une sévère irritation des yeux.
- STOT SE 3 H335 Peut irriter les voies respiratoires.

- **2.2 Éléments d'étiquetage**
- **Étiquetage selon le règlement (CE) n° 1272/2008** Le produit est classifié et étiqueté selon le règlement CLP.
- **Pictogrammes de danger**



GHS07

- **Mention d'avertissement** Attention
- **Composants dangereux déterminants pour l'étiquetage:**  
sulfate d'ammonium
- **Mentions de danger**  
H315 Provoque une irritation cutanée.  
H319 Provoque une sévère irritation des yeux.  
H335 Peut irriter les voies respiratoires.
- **Conseils de prudence**  
P261 Éviter de respirer les poussières/fumées/gaz/brouillards/vapeurs/aérosols.

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- P280 Porter des gants de protection / un équipement de protection des yeux / un équipement de protection du visage.
- P304+P340 EN CAS D'INHALATION: transporter la personne à l'extérieur et la maintenir dans une position où elle peut confortablement respirer.
- P305+P351+P338 EN CAS DE CONTACT AVEC LES YEUX: Rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.
- P405 Garder sous clef.
- P501 Éliminer le contenu/réceptacle conformément à la réglementation locale/régionale/nationale/internationale.

- **2.3 Autres dangers**
- **Résultats des évaluations PBT et vPvB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.

### RUBRIQUE 3: Composition/informations sur les composants

- **3.2 Caractérisation chimique: Mélanges**
- **Description:** Mélange des substances mentionnées à la suite avec des additifs non dangereux.

- **Composants dangereux:**

CAS: 7783-20-2	sulfate d'ammonium	>25-≤50%
EINECS: 231-984-1	⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	

- **Indications complémentaires:** Pour le libellé des phrases de risque citées, se référer au chapitre 16.

### RUBRIQUE 4: Premiers secours

- **4.1 Description des premiers secours**
- **Remarques générales:**  
Les symptômes d'intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.
- **Après inhalation:**  
Donner de l'air frais. Assistance respiratoire si nécessaire. Tenir le malade au chaud. Si les troubles persistent, consulter un médecin.  
En cas d'inconscience, coucher et transporter la personne en position latérale stable.
- **Après contact avec la peau:** Laver immédiatement à l'eau et au savon et bien rincer.
- **Après contact avec les yeux:**  
Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières. Si les troubles persistent, consulter un médecin.
- **Après ingestion:** Si les troubles persistent, consulter un médecin.
- **4.2 Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.
- **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**  
Pas d'autres informations importantes disponibles.

### RUBRIQUE 5: Mesures de lutte contre l'incendie

- **5.1 Moyens d'extinction**
- **Moyens d'extinction:** Adapter les mesures d'extinction d'incendie à l'environnement.
- **5.2 Dangers particuliers résultant de la substance ou du mélange**  
Pas d'autres informations importantes disponibles.

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- **5.3 Conseils aux pompiers**
- **Équipement spécial de sécurité:** Porter un appareil de protection respiratoire.

### RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

- **6.1 Précautions individuelles, équipement de protection et procédures d'urgence** Pas nécessaire.
- **6.2 Précautions pour la protection de l'environnement:**  
Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.
- **6.3 Méthodes et matériel de confinement et de nettoyage:**  
Evacuer les matériaux contaminés en tant que déchets conformément au point 13.  
Assurer une aération suffisante.
- **6.4 Référence à d'autres rubriques**  
Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.  
Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.  
Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

### RUBRIQUE 7: Manipulation et stockage

- **7.1 Précautions à prendre pour une manipulation sans danger**  
Bien dépoussiérer.  
Veiller à une bonne ventilation/aspiration du poste de travail.
- **Préventions des incendies et des explosions:** Aucune mesure particulière n'est requise.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:** Tenir les emballages hermétiquement fermés.
- **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

### RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

- **Indications complémentaires pour l'agencement des installations techniques:**  
Sans autre indication, voir point 7.
- **8.1 Paramètres de contrôle**
- **Composants présentant des valeurs-seuil à surveiller par poste de travail:**  
Le produit ne contient pas en quantité significative des substances présentant des valeurs-seuil à surveiller par poste de travail.
- **Remarques supplémentaires:**  
Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.
- **8.2 Contrôles de l'exposition**
- **Équipement de protection individuel:**
- **Mesures générales de protection et d'hygiène:**  
Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.  
Retirer immédiatement les vêtements souillés ou humectés.  
Se laver les mains avant les pauses et en fin de travail.  
Éviter tout contact avec les yeux et avec la peau.
- **Protection respiratoire:**  
En cas d'exposition faible ou de courte durée, utiliser un filtre respiratoire; en cas d'exposition intense ou durable, utiliser un appareil de respiration indépendant de l'air ambiant.

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· **Protection des mains:**



Gants de protection

Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.  
À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.

Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.

· **Matériau des gants**

Le choix de gants appropriés dépend non seulement du matériau, mais aussi d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre. Puisque le produit représente une préparation composée de plusieurs substances, la résistance des matériaux des gants ne peut pas être calculée à l'avance et doit, alors, être contrôlée avant l'utilisation.

· **Temps de pénétration du matériau des gants**

Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.

· **Protection des yeux:**



Lunettes de protection hermétiques

### RUBRIQUE 9: Propriétés physiques et chimiques

· **9.1 Informations sur les propriétés physiques et chimiques essentielles**

· **Indications générales**

· **Aspect:**

· **Forme:**

Liquide

· **Couleur:**

Incolore

· **Odeur:**

Irritante

· **Seuil olfactif:**

Non déterminé.

· **valeur du pH à 20 °C:**

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· **Changement d'état**

· **Point de fusion/point de congélation:**

Non déterminé.

· **Point initial d'ébullition et intervalle d'ébullition:**

Non déterminé.

· **Point d'éclair**

Non applicable.

· **Inflammabilité (solide, gaz):**

Non déterminé.

· **Température de décomposition:**

Non déterminé.

· **Température d'auto-inflammabilité:**

Le produit ne s'enflamme pas spontanément.

· **Propriétés explosives:**

Le produit n'est pas explosif.

· **Limites d'explosion:**

· **Inférieure:**

Non déterminé.

· **Supérieure:**

Non déterminé.

· **Pression de vapeur:**

Non applicable.

· **Densité à 20 °C:**

1,2 g/cm<sup>3</sup>

· **Densité relative**

Non déterminé.

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· <b>Densité de vapeur:</b>	Non applicable.
· <b>Taux d'évaporation:</b>	Non applicable.
· <b>Solubilité dans/miscibilité avec l'eau:</b>	Soluble
· <b>Coefficient de partage: n-octanol/eau:</b>	Non déterminé.
· <b>Viscosité:</b>	
· <b>Dynamique:</b>	Non applicable.
· <b>Cinématique:</b>	Non applicable.
· <b>9.2 Autres informations</b>	Pas d'autres informations importantes disponibles.

### RUBRIQUE 10: Stabilité et réactivité

- **10.1 Réactivité** Pas d'autres informations importantes disponibles.
- **10.2 Stabilité chimique**
- **Décomposition thermique/conditions à éviter:** Pas de décomposition en cas d'usage conforme.
- **10.3 Possibilité de réactions dangereuses** Aucune réaction dangereuse connue.
- **10.4 Conditions à éviter** Pas d'autres informations importantes disponibles.
- **10.5 Matières incompatibles:** Pas d'autres informations importantes disponibles.
- **10.6 Produits de décomposition dangereux:** Pas de produits de décomposition dangereux connus

### RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

#### · Valeurs LD/LC50 déterminantes pour la classification:

7783-20-2 sulfate d'ammonium

Oral | LD50 | 2.840 mg/kg (rat)

- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**  
Provoque une irritation cutanée.
- **Lésions oculaires graves/irritation oculaire**  
Provoque une sévère irritation des yeux.
- **Sensibilisation respiratoire ou cutanée**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
- **Mutagenicité sur les cellules germinales**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Cancérogénicité** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité pour la reproduction**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité spécifique pour certains organes cibles - exposition unique**  
Peut irriter les voies respiratoires.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

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### RUBRIQUE 12: Informations écologiques

- **12.1 Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Autres indications écologiques:**
- **Indications générales:**  
 Catégorie de pollution des eaux 1 (D) (Classification propre): peu polluant  
 Ne pas laisser le produit, non dilué ou en grande quantité, pénétrer la nappe phréatique, les eaux ou les canalisations.
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.
- **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

### RUBRIQUE 13: Considérations relatives à l'élimination

- **13.1 Méthodes de traitement des déchets**
- **Recommandation:** Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.
- **Emballages non nettoyés:**
- **Recommandation:** Evacuation conformément aux prescriptions légales.
- **Produit de nettoyage recommandé:** Eau, éventuellement avec des produits de nettoyage

### RUBRIQUE 14: Informations relatives au transport

- |  |                 |
|--|-----------------|
| · <b>14.1 Numéro ONU</b>   |                 |
| · <b>ADR, IMDG, IATA</b>   | néant           |
| · <b>14.2 Désignation officielle de transport de l'ONU</b>   |                 |
| · <b>ADR, IMDG, IATA</b>   | néant           |
| · <b>14.3 Classe(s) de danger pour le transport</b>  |                 |
| · <b>ADR, ADN, IMDG, IATA</b>  |                 |
| · <b>Classe</b>  | néant           |
| · <b>14.4 Groupe d'emballage</b>   |                 |
| · <b>ADR, IMDG, IATA</b>   | néant           |
| · <b>14.5 Dangers pour l'environnement:</b>  | Non applicable. |
| · <b>14.6 Précautions particulières à prendre par l'utilisateur</b>                                  | Non applicable. |
| · <b>14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC</b> | Non applicable. |
| · <b>"Règlement type" de l'ONU:</b>  | néant           |

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### RUBRIQUE 15: Informations relatives à la réglementation

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement**
- **Directive 2012/18/UE**
- **Substances dangereuses désignées - ANNEXE I** Aucun des composants n'est compris.
- **RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII** Conditions de limitation: 65
- **Directive 2011/65/UE relative à la limitation de l'utilisation de certaines substances dangereuses dans les équipements électriques et électroniques – Annexe II**
- Aucun des composants n'est compris.
- **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

### RUBRIQUE 16: Autres informations

Ces indications sont fondées sur l'état actuel de nos connaissances, mais ne constituent pas une garantie quant aux propriétés du produit et ne donnent pas lieu à un rapport juridique contractuel.

- **Phrases importantes**
- H315 Provoque une irritation cutanée.
- H319 Provoque une sévère irritation des yeux.
- H335 Peut irriter les voies respiratoires.
- **Acronymes et abréviations:**
- ADR: Accord européen sur le transport des marchandises dangereuses par Route
- 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
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Skin Irrit. 2: Corrosion cutanée/irritation cutanée – Catégorie 2
- Eye Irrit. 2: Lésions oculaires graves/irritation oculaire – Catégorie 2
- STOT SE 3: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 3

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

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überarbeitet am: 18.05.2021

### ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

· **1.1 Produktidentifikator**

· **Handelsname:** MICHEL'S FIXATIVE

· **Artikelnummer:** 18040-05, 18040-10, 18040-20, MICHEL'S FIXATIVE

· **UFI:** HVJI-50GX-A005-7963

· **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**

Keine weiteren relevanten Informationen verfügbar.

· **Verwendung des Stoffes / des Gemisches Laborchemikalien**

· **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**

· **Hersteller/Lieferant:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com

www.emsdiasum.com

Science Services GmbH

Unterhachinger Str. 75

81737 München Germany

Tel: +49(0)89 18 93 668-0

safety@scienceservices.de

Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, www.toxinfo.org

Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h

· **Auskunfteibereich:** Product safety department

· **1.4 Notrufnummer:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

### ABSCHNITT 2: Mögliche Gefahren

· **2.1 Einstufung des Stoffs oder Gemischs**

· **Einstufung gemäß Verordnung (EG) Nr. 1272/2008**



GHS07

Skin Irrit. 2 H315 Verursacht Hautreizungen.

Eye Irrit. 2 H319 Verursacht schwere Augenreizung.

STOT SE 3 H335 Kann die Atemwege reizen.

· **2.2 Kennzeichnungselemente**

· **Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008**

Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.

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· **Gefahrenpiktogramme**

GHS07

· **Signalwort** Achtung· **Gefahrbestimmende Komponenten zur Etikettierung:**

Ammoniumsulfat

· **Gefahrenhinweise**

H315 Verursacht Hautreizungen.

H319 Verursacht schwere Augenreizung.

H335 Kann die Atemwege reizen.

· **Sicherheitshinweise**

P261 Einatmen von Staub/Rauch/Gas/Nebel/Dampf/Aerosol vermeiden.

P280 Schutzhandschuhe / Augenschutz / Gesichtsschutz tragen.

P304+P340 BEI EINATMEN: Die Person an die frische Luft bringen und für ungehinderte Atmung sorgen.

P305+P351+P338 BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen. Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.

P405 Unter Verschluss aufbewahren.

P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.

· **2.3 Sonstige Gefahren**· **Ergebnisse der PBT- und vPvB-Beurteilung**· **PBT:** Nicht anwendbar.· **vPvB:** Nicht anwendbar.

### ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

· **3.2 Chemische Charakterisierung: Gemische**· **Beschreibung:** Gemisch aus nachfolgend angeführten Stoffen mit ungefährlichen Beimengungen.· **Gefährliche Inhaltsstoffe:**

CAS: 7783-20-2	Ammoniumsulfat	>25-≤50%
EINECS: 231-984-1	⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	

· **Zusätzliche Hinweise:** Der Wortlaut der angeführten Gefahrenhinweise ist dem Abschnitt 16 zu entnehmen.

### ABSCHNITT 4: Erste-Hilfe-Maßnahmen

· **4.1 Beschreibung der Erste-Hilfe-Maßnahmen**· **Allgemeine Hinweise:**

Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.

· **Nach Einatmen:**

Frischlufzufuhr, gegebenenfalls Atemspende, Wärme. Bei anhaltenden Beschwerden Arzt konsultieren.

Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.

· **Nach Hautkontakt:** Sofort mit Wasser und Seife abwaschen und gut nachspülen.· **Nach Augenkontakt:**

Augen mehrere Minuten bei geöffnetem Lidspalt unter fließendem Wasser spülen. Bei anhaltenden Beschwerden Arzt konsultieren.

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- **Nach Verschlucken:** Bei anhaltenden Beschwerden Arzt konsultieren.
- **4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen**  
Keine weiteren relevanten Informationen verfügbar.
- **4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung**  
Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

- **5.1 Löschmittel**
- **Geeignete Löschmittel:** Feuerlöschmaßnahmen auf die Umgebung abstimmen.
- **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**  
Keine weiteren relevanten Informationen verfügbar.
- **5.3 Hinweise für die Brandbekämpfung**
- **Besondere Schutzausrüstung:** Atemschutzgerät anlegen.

### ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**  
Nicht erforderlich.
- **6.2 Umweltschutzmaßnahmen:** Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.
- **6.3 Methoden und Material für Rückhaltung und Reinigung:**  
Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.  
Für ausreichende Lüftung sorgen.
- **6.4 Verweis auf andere Abschnitte**  
Informationen zur sicheren Handhabung siehe Abschnitt 7.  
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.  
Informationen zur Entsorgung siehe Abschnitt 13.

### ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**  
Gute Entstaubung.  
Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.
- **Hinweise zum Brand- und Explosionsschutz:** Keine besonderen Maßnahmen erforderlich.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:** Behälter dicht geschlossen halten.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** -
- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

- **Zusätzliche Hinweise zur Gestaltung technischer Anlagen:** Keine weiteren Angaben, siehe Abschnitt 7.

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- **8.1 Zu überwachende Parameter**
- **Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:**  
Das Produkt enthält keine relevanten Mengen von Stoffen mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten.
- **Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.
- **8.2 Begrenzung und Überwachung der Exposition**
- **Persönliche Schutzausrüstung:**
- **Allgemeine Schutz- und Hygienemaßnahmen:**  
Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.  
Beschmutzte, getränkte Kleidung sofort ausziehen.  
Vor den Pausen und bei Arbeitsende Hände waschen.  
Berührung mit den Augen und der Haut vermeiden.
- **Atemschutz:**  
Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition unluftunabhängiges Atemschutzgerät verwenden.
- **Handschutz:**



Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.

Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

- **Handschuhmaterial**  
Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich. Da das Produkt eine Zubereitung aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialien nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.
- **Durchdringungszeit des Handschuhmaterials**  
Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.
- **Augenschutz:**



Dichtschließende Schutzbrille

### ABSCHNITT 9: Physikalische und chemische Eigenschaften

- **9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**
  - **Allgemeine Angaben**
  - **Aussehen:**
  - **Form:** Flüssigkeit
  - **Farbe:** Farblos
  - **Geruch:** Reizend
  - **Geruchsschwelle:** Nicht bestimmt.
- |                             |   |
|-----------------------------|---|
| · <b>pH-Wert bei 20 °C:</b> | 7 |
|-----------------------------|---|

(Fortsetzung auf Seite 5)



# Sicherheitsdatenblatt

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· <b>Zustandsänderung</b>	
· <b>Schmelzpunkt/Gefrierpunkt:</b>	Nicht bestimmt.
· <b>Siedebeginn und Siedebereich:</b>	Nicht bestimmt.
· <b>Flammpunkt:</b>	Nicht anwendbar.
· <b>Entzündbarkeit (fest, gasförmig):</b>	Nicht bestimmt.
· <b>Zersetzungstemperatur:</b>	Nicht bestimmt.
· <b>Selbstentzündungstemperatur:</b>	Das Produkt ist nicht selbstentzündlich.
· <b>Explosive Eigenschaften:</b>	Das Produkt ist nicht explosionsgefährlich.
· <b>Explosionsgrenzen:</b>	
· <b>Untere:</b>	Nicht bestimmt.
· <b>Obere:</b>	Nicht bestimmt.
· <b>Dampfdruck:</b>	Nicht anwendbar.
· <b>Dichte bei 20 °C:</b>	1,2 g/cm <sup>3</sup>
· <b>Relative Dichte</b>	Nicht bestimmt.
· <b>Dampfdichte</b>	Nicht anwendbar.
· <b>Verdampfungsgeschwindigkeit</b>	Nicht anwendbar.
· <b>Löslichkeit in / Mischbarkeit mit</b>	
· <b>Wasser:</b>	Löslich.
· <b>Verteilungskoeffizient: n-Octanol/Wasser:</b>	Nicht bestimmt.
· <b>Viskosität:</b>	
· <b>Dynamisch:</b>	Nicht anwendbar.
· <b>Kinematisch:</b>	Nicht anwendbar.
· <b>9.2 Sonstige Angaben</b>	Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 10: Stabilität und Reaktivität

- **10.1 Reaktivität** Keine weiteren relevanten Informationen verfügbar.
- **10.2 Chemische Stabilität**
- **Thermische Zersetzung / zu vermeidende Bedingungen:**  
Keine Zersetzung bei bestimmungsgemäßer Verwendung.
- **10.3 Möglichkeit gefährlicher Reaktionen** Keine gefährlichen Reaktionen bekannt.
- **10.4 Zu vermeidende Bedingungen** Keine weiteren relevanten Informationen verfügbar.
- **10.5 Unverträgliche Materialien:** Keine weiteren relevanten Informationen verfügbar.
- **10.6 Gefährliche Zersetzungsprodukte:** Keine gefährlichen Zersetzungsprodukte bekannt.

### ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

· <b>Einstufungsrelevante LD/LC50-Werte:</b>		
7783-20-2 Ammoniumsulfat		
Oral	LD50	2.840 mg/kg (rat)

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- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut**  
Verursacht Hautreizungen.
- **Schwere Augenschädigung/-reizung**  
Verursacht schwere Augenreizung.
- **Sensibilisierung der Atemwege/Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
- **Keimzell-Mutagenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Karzinogenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**  
Kann die Atemwege reizen.
- **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**  
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

### ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.
- **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**  
Wassergefährdungsklasse 1 (Selbsteinstufung): schwach wassergefährdend  
Nicht unverdünnt bzw. in größeren Mengen in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.
- **12.5 Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.
- **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 13: Hinweise zur Entsorgung

- **13.1 Verfahren der Abfallbehandlung**
- **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.
- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.
- **Empfohlenes Reinigungsmittel:** Wasser, gegebenenfalls mit Zusatz von Reinigungsmitteln.

### ABSCHNITT 14: Angaben zum Transport

- |  |          |
|--|----------|
| · <b>14.1 UN-Nummer</b>                            |          |
| · <b>ADR, IMDG, IATA</b>                           | entfällt |
| · <b>14.2 Ordnungsgemäße UN-Versandbezeichnung</b> |          |
| · <b>ADR, IMDG, IATA</b>                           | entfällt |

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- |   |
|---|
| <ul style="list-style-type: none"> <li>· <b>14.3 Transportgefahrenklassen</b></li> <li>· <b>ADR, ADN, IMDG, IATA</b></li> <li>· <b>Klasse</b> <span style="float: right;">entfällt</span></li> </ul>  |
| <ul style="list-style-type: none"> <li>· <b>14.4 Verpackungsgruppe</b></li> <li>· <b>ADR, IMDG, IATA</b> <span style="float: right;">entfällt</span></li> </ul>                                       |
| <ul style="list-style-type: none"> <li>· <b>14.5 Umweltgefahren:</b> <span style="float: right;">Nicht anwendbar.</span></li> </ul>   |
| <ul style="list-style-type: none"> <li>· <b>14.6 Besondere Vorsichtsmaßnahmen für den Verwender</b> <span style="float: right;">Nicht anwendbar.</span></li> </ul>                                    |
| <ul style="list-style-type: none"> <li>· <b>14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code</b> <span style="float: right;">Nicht anwendbar.</span></li> </ul> |
| <ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b> <span style="float: right;">entfällt</span></li> </ul>   |

### ABSCHNITT 15: Rechtsvorschriften

- **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**
  - **Richtlinie 2012/18/EU**
  - **Namentlich aufgeführte gefährliche Stoffe - ANHANG I** Keiner der Inhaltsstoffe ist enthalten.
  - **VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII** Beschränkungsbedingungen: 65
- |   |
|---|
| <ul style="list-style-type: none"> <li>· <b>Richtlinie 2011/65/EU zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten – Anhang II</b></li> </ul> |
| <ul style="list-style-type: none"> <li>Keiner der Inhaltsstoffe ist enthalten.</li> </ul>   |
- **Nationale Vorschriften:**
  - **Wassergefährdungsklasse: WGK 1 (Selbsteinstufung):** schwach wassergefährdend.
  - **15.2 Stoffsicherheitsbeurteilung:** Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

### ABSCHNITT 16: Sonstige Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

- **Relevante Sätze**
- H315 Verursacht Hautreizungen.
- H319 Verursacht schwere Augenreizung.
- H335 Kann die Atemwege reizen.
- **Abkürzungen und Akronyme:**
- 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
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Skin Irrit. 2: Hautreizende/-ätzende Wirkung – Kategorie 2
- Eye Irrit. 2: Schwere Augenschädigung/Augenreizung – Kategorie 2
- STOT SE 3: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 3

**Scheda di dati di sicurezza**  
ai sensi del regolamento 1907/2006/CE, Articolo 31

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### SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

- **1.1 Identificatore del prodotto**
- **Denominazione commerciale:** MICHEL'S FIXATIVE
- **Articolo numero:** 18040-05, 18040-10, 18040-20, MICHEL'S FIXATIVE
- **UFI:** HVJ1-50GX-A005-7963
- **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**  
Non sono disponibili altre informazioni.
- **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio
- **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**
- **Produttore/fornitore:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Società Italiana Chimici**  
Via Rio Nell Ellba 140  
00138 Rome, Italy  
Tel: 39 06 8800211  
Fax: 39 30 06 8815313  
Web: www.sichim.com
- **Informazioni fornite da:** Product safety department
- **1.4 Numero telefonico di emergenza:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SEZIONE 2: Identificazione dei pericoli

- **2.1 Classificazione della sostanza o della miscela**
- **Classificazione secondo il regolamento (CE) n. 1272/2008**



GHS07

- *Skin Irrit. 2 H315 Provoca irritazione cutanea.*
- *Eye Irrit. 2 H319 Provoca grave irritazione oculare.*
- *STOT SE 3 H335 Può irritare le vie respiratorie.*

- **2.2 Elementi dell'etichetta**
- **Etichettatura secondo il regolamento (CE) n. 1272/2008**  
Il prodotto è classificato ed etichettato conformemente al regolamento CLP.
- **Pittogrammi di pericolo**



GHS07

- **Avvertenza** Attenzione
- **Componenti pericolosi che ne determinano l'etichettatura:**  
solfato di ammonio

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## Scheda di dati di sicurezza ai sensi del regolamento 1907/2006/CE, Articolo 31

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**· Indicazioni di pericolo**

- H315 Provoca irritazione cutanea.
- H319 Provoca grave irritazione oculare.
- H335 Può irritare le vie respiratorie.

**· Consigli di prudenza**

- P261 Evitare di respirare la polvere/i fumi/i gas/la nebbia/i vapori/gli aerosol.
- P280 Indossare guanti / occhiali di protezione / protezione per il viso.
- P304+P340 IN CASO DI INALAZIONE: trasportare l'infortunato all'aria aperta e mantenerlo a riposo in posizione che favorisca la respirazione.
- P305+P351+P338 IN CASO DI CONTATTO CON GLI OCCHI: sciacquare accuratamente per parecchi minuti. Togliere le eventuali lenti a contatto se è agevole farlo. Continuare a sciacquare.
- P405 Conservare sotto chiave.
- P501 Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.

**· 2.3 Altri pericoli****· Risultati della valutazione PBT e vPvB**


- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.

### SEZIONE 3: Composizione/informazioni sugli ingredienti

**· 3.2 Caratteristiche chimiche: Miscela**

· **Descrizione:** Miscela delle seguenti sostanze con additivi non pericolosi.

**· Sostanze pericolose:**

CAS: 7783-20-2	solfato di ammonio	>25- ≤50%
EINECS: 231-984-1	 Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	

· **Ulteriori indicazioni:** Il testo dell'avvertenza dei pericoli citati può essere appreso dal capitolo 16

### SEZIONE 4: Misure di primo soccorso

**· 4.1 Descrizione delle misure di primo soccorso****· Indicazioni generali:**

I sintomi di avvelenamento possono comparire dopo molte ore, per tale motivo è necessaria la sorveglianza di un medico nelle 48 ore successive all'incidente.

**· Inalazione:**

Portare in zona ben areata, praticare eventualmente la respirazione artificiale, tenere al caldo. Se i disturbi persistono consultare il medico.

Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.

· **Contatto con la pelle:** Lavare immediatamente con acqua e sapone sciacquando accuratamente.

**· Contatto con gli occhi:**

Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte. Se persiste il dolore consultare il medico.

· **Ingestione:** Se il dolore persiste consultare il medico.

· **4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.

· **4.3 Indicazione dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**

Non sono disponibili altre informazioni.

### SEZIONE 5: Misure antincendio

**· 5.1 Mezzi di estinzione**

· **Mezzi di estinzione idonei:** Adottare provvedimenti antiincendio nei dintorni della zona colpita.

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- **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.
- **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** Indossare il respiratore.

### **SEZIONE 6: Misure in caso di rilascio accidentale**

- **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza** Non necessario.
- **6.2 Precauzioni ambientali:** Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.
- **6.3 Metodi e materiali per il contenimento e per la bonifica:**  
Smaltimento del materiale contaminato conformemente al punto 13.  
Provvedere ad una sufficiente areazione.
- **6.4 Riferimento ad altre sezioni**  
Per informazioni relative ad un manipolazione sicura, vedere capitolo 7.  
Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.  
Per informazioni relative allo smaltimento vedere Capitolo 13.

### **SEZIONE 7: Manipolazione e immagazzinamento**

- **7.1 Precauzioni per la manipolazione sicura**  
Accurata captazione delle polveri.  
Accurata ventilazione/aspirazione nei luoghi di lavoro.
- **Indicazioni in caso di incendio ed esplosione:** Non sono richiesti provvedimenti particolari.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:** Mantenere i recipienti ermeticamente chiusi.
- **7.3 Usi finali particolari** Non sono disponibili altre informazioni.

### **SEZIONE 8: Controllo dell'esposizione/protezione individuale**

- **Ulteriori indicazioni sulla struttura di impianti tecnici:** Nessun dato ulteriore, vedere punto 7.
- **8.1 Parametri di controllo**
- **Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro:**  
Il prodotto non contiene quantità rilevanti di sostanze i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro.
- **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.
- **8.2 Controlli dell'esposizione**
- **Mezzi protettivi individuali:**
- **Norme generali protettive e di igiene del lavoro:**  
Tenere lontano da cibo, bevande e foraggi.  
Togliere immediatamente gli abiti contaminati.  
Lavarsi le mani prima dell'intervallo o a lavoro terminato.  
Evitare il contatto con gli occhi e la pelle.
- **Maschera protettiva:**  
Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.

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**· Guanti protettivi:**

Guanti protettivi

*Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione.*

*A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche.*

*Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.*

**· Materiale dei guanti**

*La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro. Poiché il prodotto rappresenta una formulazione di più sostanze, la stabilità dei materiali dei guanti non è calcolabile in anticipo e deve essere testata prima dell'impiego*

**· Tempo di permeazione del materiale dei guanti**

*Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.*

**· Occhiali protettivi:**

Occhiali protettivi a tenuta

## SEZIONE 9: Proprietà fisiche e chimiche

**· 9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali****· Indicazioni generali****· Aspetto:****· Forma:**

Liquido

**· Colore:**

Incolore

**· Odore:**

Irritante

**· Soglia olfattiva:**

Non definito.

**· valori di pH a 20 °C:**

7

**· Cambiamento di stato****· Punto di fusione/punto di congelamento:**

Non definito.

**· Punto di ebollizione iniziale e intervallo di ebollizione:**

Non definito.

**· Punto di infiammabilità:**

Non applicabile.

**· Infiammabilità (solidi, gas):**

Non definito.

**· Temperatura di decomposizione:**

Non definito.

**· Temperatura di autoaccensione:**

Prodotto non autoinfiammabile.

**· Proprietà esplosive:**

Prodotto non esplosivo.

**· Limiti di infiammabilità:****· Inferiore:**

Non definito.

**· Superiore:**

Non definito.

**· Tensione di vapore:**

Non applicabile.

**· Densità a 20 °C:**1,2 g/cm<sup>3</sup>**· Densità relativa**

Non definito.

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· <b>Densità di vapore:</b>	Non applicabile.
· <b>Velocità di evaporazione</b>	Non applicabile.
· <b>Solubilità in/Miscibilità con acqua:</b>	Solubile.
· <b>Coefficiente di ripartizione: n-ottanolo/acqua:</b>	Non definito.
· <b>Viscosità:</b>	Non applicabile.
· <b>Dinamica:</b>	Non applicabile.
· <b>Cinematica:</b>	Non applicabile.
· <b>9.2 Altre informazioni</b>	Non sono disponibili altre informazioni.

### SEZIONE 10: Stabilità e reattività

- **10.1 Reattività** Non sono disponibili altre informazioni.
- **10.2 Stabilità chimica**
- **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.
- **10.3 Possibilità di reazioni pericolose** Non sono note reazioni pericolose.
- **10.4 Condizioni da evitare** Non sono disponibili altre informazioni.
- **10.5 Materiali incompatibili:** Non sono disponibili altre informazioni.
- **10.6 Prodotti di decomposizione pericolosi:** Non sono noti prodotti di decomposizione pericolosi.

### SEZIONE 11: Informazioni tossicologiche

- **11.1 Informazioni sugli effetti tossicologici**
- **Tossicità acuta** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

· **Valori LD/LC50 rilevanti per la classificazione:**

7783-20-2 solfato di ammonio

Orale | LD50 | 2.840 mg/kg (rat)

- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**  
Provoca irritazione cutanea.
- **Lesioni oculari gravi/irritazioni oculari gravi**  
Provoca grave irritazione oculare.
- **Sensibilizzazione respiratoria o cutanea**  
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
- **Mutagenicità delle cellule germinali**  
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Cancerogenicità** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità per la riproduzione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**  
Può irritare le vie respiratorie.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**  
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Pericolo in caso di aspirazione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

(continua a pagina 6)



**Scheda di dati di sicurezza**  
**ai sensi del regolamento 1907/2006/CE, Articolo 31**

Stampato il: 18.05.2021

Revisione: 18.05.2021

**Denominazione commerciale: MICHEL'S FIXATIVE**

(Segue da pagina 5)

### SEZIONE 12: Informazioni ecologiche

- **12.1 Tossicità**
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- **12.2 Persistenza e degradabilità** Non sono disponibili altre informazioni.
- **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**  
*Pericolosità per le acque classe 1 (D) (Autoclassificazione): poco pericoloso*  
*Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature non diluito o in grandi quantità.*
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.
- **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

### SEZIONE 13: Considerazioni sullo smaltimento

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.
- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.
- **Detergente consigliato:** Acqua eventualmente con l'aggiunta di detersivi.

### SEZIONE 14: Informazioni sul trasporto

· <b>14.1 Numero ONU</b> · <b>ADR, IMDG, IATA</b>	<i>non applicabile</i>
· <b>14.2 Nome di spedizione dell'ONU</b> · <b>ADR, IMDG, IATA</b>	<i>non applicabile</i>
· <b>14.3 Classi di pericolo connesso al trasporto</b> · <b>ADR, ADN, IMDG, IATA</b> · <b>Classe</b>	<i>non applicabile</i>
· <b>14.4 Gruppo di imballaggio</b> · <b>ADR, IMDG, IATA</b>	<i>non applicabile</i>
· <b>14.5 Pericoli per l'ambiente:</b>	<i>Non applicabile.</i>
· <b>14.6 Precauzioni speciali per gli utilizzatori</b>	<i>Non applicabile.</i>
· <b>14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC</b>	<i>Non applicabile.</i>
· <b>UN "Model Regulation":</b>	<i>non applicabile</i>

IT  
(continua a pagina 7)

**Scheda di dati di sicurezza**  
**ai sensi del regolamento 1907/2006/CE, Articolo 31**

Stampato il: 18.05.2021

Revisione: 18.05.2021

**Denominazione commerciale: MICHEL'S FIXATIVE**

(Segue da pagina 6)

### **SEZIONE 15: Informazioni sulla regolamentazione**

· **15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**

· **Direttiva 2012/18/UE**

· **Sostanze pericolose specificate - ALLEGATO I** Nessuno dei componenti è contenuto.

· **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 65

· **Direttiva 2011/65/UE sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche - Allegato II**

Nessuno dei componenti è contenuto.

· **15.2 Valutazione della sicurezza chimica:** Una valutazione della sicurezza chimica non è stata effettuata.

### **SEZIONE 16: Altre informazioni**

*I dati sono riportati sulla base delle nostre conoscenze attuali, non rappresentano tuttavia alcuna garanzia delle caratteristiche del prodotto e non motivano alcun rapporto giuridico contrattuale.*

· **Frasi rilevanti**

*H315 Provoca irritazione cutanea.*

*H319 Provoca grave irritazione oculare.*

*H335 Può irritare le vie respiratorie.*

· **Abbreviazioni e acronimi:**

*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*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Skin Irrit. 2: Corrosione/irritazione della pelle – Categoria 2*

*Eye Irrit. 2: Gravi lesioni oculari/irritazione oculare – Categoria 2*

*STOT SE 3: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 3*

# 물질안전보건자료

## GHS에 따라

인쇄일자: 2021.05.18

개정: 2021.05.18

### 1 화학제품과 회사에 관한 정보

- 제품 식별자
- 제품명: MICHEL'S FIXATIVE
- 상품번호: 18040-05, 18040-10, 18040-20, MICHEL'S FIXATIVE
- 해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도 추가적인 정보가 존재하지 않습니다.
- 제품의 권고 용도와 사용상의 제한: 실험실화학품
- 안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보
- 제조자/수입자/유통업자 정보:  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- Samchang Commercial Co., Ltd.  
Yeo Eui Do  
PO Box 1110  
Seoul, Korea  
Tel: 82 2 703 3040  
Fax: 82 2 717 3298
- 
- Daedok Science, Co. Ltd.  
34141 E10 Korea Advanced Institute of Science  
Guseong-Dong, Yuseong-gu, Daejeon,  
Korea  
Phone: 82 42 710 2091  
Fax: 82 42 367 0005  
Website: www.labsmro.com
- 추가적인 정보 획득 가능: Product safety department
- 비상연락 전화번호:  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 유해성·위험성

- 순물질 또는 혼합물의 분류



피부 부식성/피부 자극성 - 구분 2      H315 피부에 자극을 일으킴  
 심한 눈 손상성/눈 자극성 - 구분 2      H319 눈에 심한 자극을 일으킴  
 특정표적장기 독성 - 1회 노출 - 구분 3      H335 호흡 자극성을 일으킬 수 있음

- 라벨표기 요소
- GHS 라벨 요소  
본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

(2 쪽에 계속)

# 물질안전보건자료

## GHS에 따라

인쇄일자: 2021.05.18

개정: 2021.05.18

**제품명: MICHEL'S FIXATIVE**

(1 쪽부터계속)

· **그림문자**



GHS07

· **신호어 경고**

· **상표상에명확히위험성이표시된성분:**

N-ethylmaleimide

· **유해.위험 문구**

피부에 자극을 일으킴  
 눈에 심한 자극을 일으킴  
 호흡 자극성을 일으킬 수 있음

· **예방조치 문구**

분진·흙·가스·미스트·증기·스프레이의 흡입을 피하십시오.  
 보호장갑 / 눈 보호대 / 안면 보호구 착용.  
 흡입하면 신선한 공기가 있는 곳으로 옮기고 호흡하기 쉬운 자세로 안정을 취하십시오.  
 눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으시오.  
 밀봉하여 저장하십시오.  
 (지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.

· **기타 유해성**

- PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과
- PBT(잔류성, 생물농축성, 독성 물질): 해당사항 없음.
- vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.

### 3 구성성분의 명칭 및 함유량

· **화 학 적 특 성:** 혼합물

· **설 명:** 무해한 첨가 물 이 함유된 아래에 열 거 된 물 질로 만 들 어 진 혼 합 물.

· **위 험 요 소:**

7783-20-2	ammonium sulphate 피부 부식성/피부 자극성 - 구분 2, H315; 심한 눈 손상성/눈 자극성 - 구분 2, H319; 특정표적장기 독성 - 1회 노출 - 구분 3, H335	>25-≤50%
128-53-0	N-ethylmaleimide 급성 독성 - 경구 - 구분 3, H301; 급성 독성 - 경피 - 구분 3, H311; 급성 독성 - 흡입 - 구분 3, H331;  피부 부식성/피부 자극성 - 구분 1, H314; 심한 눈 손상성/눈 자극성 - 구분 1, H318	≤2.5%

### 4 응급조치 요령

· **응급조치요령 내용**

· **일 반 적 정 보:**

중 독 증 상 은 몇 시 간 이 지 난 뒤 에 발 생 할 수 있 다. 따 라 서 사 고 가 발 생 한 후 에 적 어 도 48 시 간 동 안 은 의 료 진 의 관 찰 을 받 아 야 한 다.

· **흡입했을 때:**

신 선 한 공 기 를 쐬 고, 필 요 할 경 우 에 는 산 소 호 흡 기 의 도 움 을 받 는 다. 환 자 를 따 뜻 하 게 하 고, 증 상 이 지 속 될 경 우 에 는 의 료 진 의 도 움 을 구 한 다.

환 자 가 의 식 을 잃 었 을 경 우 에 는 안 전 한 자 세 에 서 환 자 를 운 반 한 다.

· **피부에 접촉했을 때:** 즉시 물과 비누로 씻고 잘 행군다.

· **눈에 들어갔을 때:** 흐르는 물에 눈을 몇 분 동안 씻어내고 나서, 증상이 지속될 경우에는 의사와 상담한다

(3 쪽에계속)

# 물질안전보건자료

## GHS에 따라

인쇄일자: 2021.05.18

개정: 2021.05.18

**제품명: MICHEL'S FIXATIVE**

(2 쪽부터계속)

- **먹었을 때:** 증상이 지속될 경우에는 의사와 상담 한다.
- **기타 의사의 주의사항:**
- **가장 중요한 급·만성 증상 및 영향** 추가적인 정보가 존재하지 않습니다.
- **즉각적인 의료처치 및 특별치료가 필요함을 시사하는 징후** 추가적인 정보가 존재하지 않습니다.

### 5 폭발·화재시 대처방법

- **소화제**
- **적절한 소화제:** 주변 환경에 맞는 화재 진화방법을 사용한다.
- **본 화학물질이나 혼합물에서 발생하는 특별 유해성** 추가적인 정보가 존재하지 않습니다.
- **소방관에 대한 권고사항**
- **화재 진압 시 착용할 보호구 및 예방조치:** 호흡보호장비설치.

### 6 누출 사고 시 대처방법

- **개인적 예방조치, 보호장비 및 응급처치 절차** 필요없음.
- **환경 관련 예방조치:** 하수도망/해수면위외물/지하수로도달하지않게한다.
- **밀폐 및 정화 방법과 소재:**  
항목 13에 따라 오염된 물질을 쓰레기로 처분한다.  
충분한 환기가 되도록 한다.
- **타 섹션 참조**  
안전관리에 대한 정보는 제7 장 을 참고하시오.  
개인 보호 장 비에 대한 정보는 제8 장 을 참고하시오.  
쓰레기 처리에 대한 정보는 제13 장 을 참고하시오.

### 7 취급 및 저장방법

- **취급:**
- **안전 취급을 위한 예방조치**  
철저한 먼지 제거.  
작업장에서는통풍이잘되고/습기제거가잘되게주의한다.
- **화재 및 폭발 사고 예방대책에 관한 정보:** 특별한 조치가 필요없음.
- **혼합위험성 등 안전 저장 조건**
- **보관:**
- **안전한 저장 방법:** 특별한 요구사항이 없음.
- **하나의 공동 보관 시설에 대한 보관 관련 정보:** 필요없음
- **보관 조건에 관한 추가적인 정보:** 용기를새지않게밀폐한채보관한다.
- **구체적 최종 사용자** 추가적인 정보가 존재하지 않습니다.

### 8 노출방지 및 개인보호구

- **첨단시설 디자인에 대한 추가정보:** 더 이상 의 자료는 없음. 항 목 7 을 참고하시오.

· **통제 변수**

- **화학물질의 노출기준, 생물학적 노출기준 등:**

7783-20-2 ammonium sulphate

TLV (KR) 단기간의값: 20 mg/m<sup>3</sup>

장기간의값: 10 mg/m<sup>3</sup>

- **추 가 정보:** 제 조 할 당시에 유효 한 목 록을 기초로 사용했다.

(4 쪽에계속)

# 물질안전보건자료 GHS에 따라

인쇄일자: 2021.05.18

개정: 2021.05.18

**제품명: MICHEL'S FIXATIVE**

(3 쪽부터계속)

- **노출 통제**
- **개인 보호구**
- **일반적보호조치및위생조치:**  
 식료품, 음료수와 사료로부터 멀리떨어뜨려 놓는다.  
 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.  
 휴식 전 이나 작업이 끝날때마다 손을 씻는다.  
 눈과 피부와의 접촉은 피한다.
- **호흡기 보호:**  
 단 시간 또는 경미한 오염의 경우에는 호흡여과기를 사용한다. 심각한 또는 장기간 노출시에는 호흡보호장비를 사용한다.
- **손 보호:**



보호용 장갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.  
 테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합 물에 적합한 장갑재질에 대한 추천이 없다.  
 투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

- **장갑의재료**  
 적합한장갑의선정은재질차이뿐아니라품질기준의차이도고려하여이루어져야하고제조업종에따라서도다  
 르게선정되어야한다. 제품은다양한재료로부터의조제로이루어지는것이기때문에, 장갑재질의안정성은사  
 전에예측되어질수있는것이아니고, 반드시사용전에 (그안전성이) 체크되어야한다.
- **장갑재료의투과시간** 정확한관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.
- **눈 보호:**



팍조이는보안경

## 9 물리화학적 특성

- **기본 물리 및 화학적 특성에 대한 정보**
- **일반정보**
- **외형**
- **물리적 상태:** 액체
- **색:** 색소가없는
- **냄새:** 자극적인 (매력적인)
- **후각역치** 알맞지않다.
- **pH 의경우 20 °C:** 7
- **상태변화**
- **녹는점/어는점:** 맞지않는
- **초기 끓는점과 끓는점 범위:** 맞지않는
- **인화점:** 해당사항 없음.
- **인화성(고체, 기체):** 알맞지않다.
- **분해 온도:** 알맞지않다.
- **자기점화:** 이제품은자연발화성이없다.
- **폭발위험:** 이제품은폭발위험성이없다

(5 쪽에계속)

# 물질안전보건자료

## GHS에 따라

인쇄일자: 2021.05.18

개정: 2021.05.18

**제품명: MICHEL'S FIXATIVE**

(4 쪽부터계속)

· 인화 또는 폭발 범위의 상한/하한	
· 아래로:	알맞지않다.
· 위로:	알맞지않다.
· 증기압:	해당사항 없음.
· 밀도 의경우 20 °C:	1.2 g/cm <sup>3</sup>
· 비중:	알맞지않다.
· 증기밀도:	해당사항 없음.
· 증발 속도:	해당사항 없음.
· 용해도:	
· 물:	가용의
· n 옥탄올/물 분배계수:	알맞지않다.
· 점도:	
· 역학성:	해당사항 없음.
· 동점성:	해당사항 없음.
· 기타 정보	추가적인 정보가 존재하지 않습니다.

### 10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 및 유해 반응의 가능성 / 피해야 할 조건: 규정에따라사용할경우해체는없다
- 유해반응 가능성 위험한반응으로는알려지지않았다.
- 피해야 할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 금지 물질: 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성있는분해물들은알려지지않았다.

### 11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성:

· LD/LC50-수치에 따른 분류:
7783-20-2 ammonium sulphate
구강의 LD50 2,840 mg/kg (rat)

- 입차적 자극 효과:
- 피부 부식성 또는 자극성: 피부와점막을자극한다.
- 심한 눈 손상 또는 자극성: 자극
- 감각화: 민감한영향이없는것으로알려져있다.

· 추가적인 독성에 관한 정보:

이제품은유럽공동체의공동분류원칙의합법적인절차에근거하여최근에발효된원고에서아래위험들의사전 준비에대하여제시하고있다.  
건강에해로운  
자극적인

KR

(6 쪽에계속)



# 물질안전보건자료

## GHS에 따라

인쇄일자: 2021.05.18

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**제품명: MICHEL'S FIXATIVE**

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### 12 환경에 미치는 영향

- **독성**
- **수생독성:** 추가적인 정보가 존재하지 않습니다.
- **지속성 및 분해성** 추가적인 정보가 존재하지 않습니다.
- **환경 시스템에서의 행동:**
- **생물농축 잠재성** 추가적인 정보가 존재하지 않습니다.
- **토양내 이동성** 추가적인 정보가 존재하지 않습니다.
- **추가적인 생태학 정보:**
- **일반 특징:**  
수질오염등급 1 (자체등급분류): 약하게수질오염이된  
희석시키지않은채대량으로지하수나, 하천으로그리고하수도망에도달하지않게한다.
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질):** 해당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당사항 없음.
- **기타 부작용** 추가적인 정보가 존재하지 않습니다.

### 13 폐기시 주의사항

- **폐기물 처리 방법**
- **권고:** 생활쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.
- **비위생적 포장:**
- **권고:** 당국의지침에입각한쓰레기처리.
- **추천 세정제:** 경우에따라서세제가첨가된물

### 14 운송에 필요한 정보

· <b>유엔 번호</b> · ADR, IMDG, IATA	누락되다
· <b>UN 적정 선적명</b> · ADR, IMDG, IATA	누락되다
· <b>교통 위험 클래스</b> · ADR, ADN, IMDG, IATA · <b>등급</b>	누락되다
· <b>용기등급</b> · ADR, IMDG, IATA	누락되다
· <b>환경적 유해물질:</b>	해당사항 없음.
· <b>이용자 특별 예방조치</b>	해당사항 없음.
· <b>MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송</b>	해당사항 없음.
· <b>UN "모범 규제":</b>	누락되다

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(7 쪽에계속)

# 물질안전보건자료

## GHS에 따라

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개정: 2021.05.18

**제품명: MICHEL'S FIXATIVE**

(6 쪽부터계속)

### 15 법적 규제현황

· 산업안전보건법에 의한 규제:

· 제조 등 금지물질:

어떠한내용물도목록화되어있지않다

· 허가대상물질:

어떠한내용물도목록화되어있지않다

· 관리대상유해물질:

어떠한내용물도목록화되어있지않다

· 작업환경측정 대상 유해인자

어떠한내용물도목록화되어있지않다

· 특수건강진단 대상 유해인자

어떠한내용물도목록화되어있지않다

· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률

· Korean Existing Chemical Inventory

7783-20-2 ammonium sulphate

KE-01743

· 화학물질관리법

· 사고대비물질

어떠한내용물도목록화되어있지않다

· 금지물질

어떠한내용물도목록화되어있지않다

· 제한물질

어떠한내용물도목록화되어있지않다

· 유독물질

어떠한내용물도목록화되어있지않다

· 허가물질

어떠한내용물도목록화되어있지않다

· 등록 또는 신고 면제대상 화학물질

어떠한내용물도목록화되어있지않다

· '21년까지 등록하여야 할 압, 돌연변이, 생식능력 이상을 일으키거나 일으킬 우려가 있는 기존화학물질

어떠한내용물도목록화되어있지않다

· 중점관리물질의 지정

· 표1 중점관리물질(제2조 관련)

어떠한내용물도목록화되어있지않다

· 표2 중점관리물질(제2조 관련)

어떠한내용물도목록화되어있지않다

· GHS 라벨 요소

본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· 그림문자



GHS07

(8 쪽에 계속)

# 물질안전보건자료

## GHS에 따라

인쇄일자: 2021.05.18

개정: 2021.05.18

**제품명: MICHEL'S FIXATIVE**

(7 쪽부터계속)

- **신호어 경고**
- **상표상에명확히위험성이표시된성분:**  
N-ethylmaleimide
- **유해.위험 문구**  
피부에 자극을 일으킴  
눈에 심한 자극을 일으킴  
호흡 자극성을 일으킬 수 있음
- **예방조치 문구**  
분진·흙·가스·미스트·증기·스프레이의 흡입을 피하십시오.  
보호장갑 / 눈 보호대 / 안면 보호구 착용.  
흡입하면 신선한 공기가 있는 곳으로 옮기고 호흡하기 쉬운 자세로 안정을 취하십시오.  
눈에 묻으면 몇 분간 물로 조심해서 씻으십시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으십시오.  
밀봉하여 저장하십시오.  
(지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.
- **화학물질 안전성 평가:** 화학물질 안전성 평가가 수행되지 않음

### 16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은기술하지않았으며계약적인법률관계에기반을두고있지도않다

- **최초 작성일자:** 2021.05.18
- **개정 횟수 및 최종 개정일자:** 1 / 2021.05.18
- **약어와 두문자어:**  
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  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative

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**Ficha de dados de segurança**  
em conformidade com 1907/2006/CE, Artigo 31°

data da impressão 18.05.2021

Revisão: 18.05.2021

### SECÇÃO 1: Identificação da substância/mistura e da sociedade/empresa

- **1.1 Identificador do produto**
- **Nome comercial:** MICHEL'S FIXATIVE
- **Código do produto:** 18040-05, 18040-10, 18040-20, MICHEL'S FIXATIVE
- **UFI:** HVJ1-50GX-A005-7963
- **1.2 Utilizações identificadas relevantes da substância ou mistura e utilizações desaconselhadas**  
Não existe mais nenhuma informação relevante disponível.
- **Utilização da substância / da preparação** Químicos de laboratório
- **1.3 Identificação do fornecedor da ficha de dados de segurança**
- **Fabricante/fornecedor:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Entidade para obtenção de informações adicionais:** Product safety department
- **1.4 Número de telefone de emergência:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECÇÃO 2: Identificação dos perigos

- **2.1 Classificação da substância ou mistura**
- **Classificação em conformidade com o Regulamento (CE) n.º 1272/2008**



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- Skin Irrit. 2 H315 Provoca irritação cutânea.
- Eye Irrit. 2 H319 Provoca irritação ocular grave.
- STOT SE 3 H335 Pode provocar irritação das vias respiratórias.

- **2.2 Elementos do rótulo**
- **Rotulagem em conformidade com o Regulamento (CE) n.º 1272/2008**  
O produto classificou-se e está etiquetado em conformidade com o regulamento CLP.
- **Pictogramas de perigo**



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- **Palavra-sinal** Atenção
- **Componentes determinantes para os perigos constantes do rótulo:**  
sulfato de amónio
- **Advertências de perigo**  
H315 Provoca irritação cutânea.  
H319 Provoca irritação ocular grave.  
H335 Pode provocar irritação das vias respiratórias.
- **Recomendações de prudência**  
P261 Evitar respirar as poeiras/fumos/gases/névoas/vapores/aerossóis.

( continuação na página 2 )

# Ficha de dados de segurança

## em conformidade com 1907/2006/CE, Artigo 31º

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Revisão: 18.05.2021

**Nome comercial:** MICHEL'S FIXATIVE

(continuação da página 1)

- P280 Usar luvas de protecção / protecção ocular / protecção facial.
- P304+P340 EM CASO DE INALAÇÃO: retirar a pessoa para uma zona ao ar livre e mantê-la numa posição que não dificulte a respiração.
- P305+P351+P338 SE ENTRAR EM CONTACTO COM OS OLHOS: Enxaguar cuidadosamente com água durante vários minutos. Se usar lentes de contacto, retire-as, se tal lhe for possível. Continue a enxaguar.
- P405 Armazenar em local fechado à chave.
- P501 Eliminar o conteúdo/recipiente de acordo com a legislação local/regional/nacional/internacional.

- **2.3 Outros perigos**
- **Resultados da avaliação PBT e mPmB**
- **PBT:** Não aplicável.
- **mPmB:** Não aplicável.

### SECÇÃO 3: Composição/informação sobre os componentes

- **3.2 Caracterização química: Misturas**
- **Descrição:** Mistura das seguintes substâncias com aditivos não perigosos.

- **Substâncias perigosas:**

CAS: 7783-20-2	sulfato de amónio	>25-≤50%
EINECS: 231-984-1	⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	

- **Avisos adicionais:** O texto das indicações de perigo aqui incluído poderá ser consultado no capítulo 16.

### SECÇÃO 4: Medidas de primeiros socorros

- **4.1 Descrição das medidas de primeiros socorros**
- **Indicações gerais:**  
Os sintomas de envenenamento podem surgir apenas após várias horas, por isso é necessária vigilância médica pelo menos 48 horas após o acidente.
- **Em caso de inalação:**  
Remover a vítima para um local arejado. Se necessário administrar respiração artificial. Manter a vítima aquecida. Se os sintomas persistirem, consultar o médico.  
Se a vítima estiver inconsciente, posicioná-la e transportá-la com estabilidade, deitada lateralmente.
- **Em caso de contacto com a pele:** Lavar imediatamente com água e sabão e enxaguar abundantemente.
- **Em caso de contacto com os olhos:**  
Enxaguar os olhos durante alguns minutos sob água corrente, mantendo as pálpebras abertas. Em caso de persistência dos sintomas, consultar o médico.
- **Em caso de ingestão:** Se os sintomas persistirem, consultar o médico.
- **4.2 Sintomas e efeitos mais importantes, tanto agudos como retardados**  
Não existe mais nenhuma informação relevante disponível.
- **4.3 Indicações sobre cuidados médicos urgentes e tratamentos especiais necessários**  
Não existe mais nenhuma informação relevante disponível.

### SECÇÃO 5: Medidas de combate a incêndios

- **5.1 Meios de extinção**
- **Meios adequados de extinção:** Coordenar no local medidas para extinção do fogo.
- **5.2 Perigos especiais decorrentes da substância ou mistura**  
Não existe mais nenhuma informação relevante disponível.

(continuação na página 3)

# Ficha de dados de segurança

## em conformidade com 1907/2006/CE, Artigo 31º

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Nome comercial: MICHEL'S FIXATIVE

( continuação da página 2 )

- **5.3 Recomendações para o pessoal de combate a incêndios**
- **Equipamento especial de protecção:** Colocar máscara de respiração.

### SECÇÃO 6: Medidas a tomar em caso de fugas acidentais

- **6.1 Precauções individuais, equipamento de protecção e procedimentos de emergência** Não necessário.
- **6.2 Precauções a nível ambiental:** Evitar que penetre na canalização / águas superficiais / águas subterrâneas.
- **6.3 Métodos e materiais de confinamento e limpeza:**  
Eliminar residualmente as substâncias contaminadas como um resíduo segundo o Ponto 13.  
Assegurar uma ventilação adequada.
- **6.4 Remissão para outras secções**  
Para informações sobre uma manipulação segura, ver o capítulo 7.  
Para informações referentes ao equipamento de protecção individual, ver o capítulo 8.  
Para informações referentes à eliminação residual, ver o capítulo 13.

### SECÇÃO 7: Manuseamento e armazenagem

- **7.1 Precauções para um manuseamento seguro**  
Remover completamente o pó.  
Assegurar uma boa ventilação / exaustão no local de trabalho.
- **Precauções para prevenir incêndios e explosões:** Não são necessárias medidas especiais.
- **7.2 Condições de armazenagem segura, incluindo eventuais incompatibilidades**
- **Armazenagem:**
- **Requisitos para espaços ou contentores para armazenagem:** Sem requisitos especiais.
- **Avisos para armazenagem conjunta:** Não necessário.
- **Outros avisos sobre as condições de armazenagem:** Manter o recipiente hermeticamente fechado.
- **7.3 Utilização(ões) final(is) específica(s)** Não existe mais nenhuma informação relevante disponível.

### SECÇÃO 8: Controlo da exposição/Protecção individual

- **Indicações adicionais para concepção de instalações técnicas:** Não existem outras informações, ver ponto 7.
- **8.1 Parâmetros de controlo**
- **Componentes cujo valor do limite de exposição no local de trabalho deve ser monitorizado:**  
O produto não contém quantidades relevantes de substâncias cujo valor limite relacionado no local de trabalho tenha que ser monitorizado.
- **Indicações adicionais:** Foram utilizadas como base as listas válidas à data da elaboração.
- **8.2 Controlo da exposição**
- **Equipamento de protecção individual:**
- **Medidas gerais de protecção e higiene:**  
Manter afastado de alimentos, bebidas e forragens.  
Despir imediatamente a roupa contaminada e embebida.  
Lavar as mãos antes das pausas e no fim do trabalho.  
Evitar o contacto com os olhos e com a pele.
- **Protecção respiratória:**  
Utilizar uma máscara respiratória se a exposição for reduzida ou durante um curto espaço de tempo; se esta for mais prolongada ou mais intensa, utilizar uma máscara respiratória independente do ar ambiente.

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· **Protecção das mãos:**

Luvas de protecção

O material das luvas tem de ser impermeável e resistente ao produto / à substância / preparação.

Uma vez que não foram realizados testes nesta área, não podemos recomendar um determinado tipo de material para as luvas que seja adequado para o produto / a preparação / a mistura de químicos.

Escolher o material das luvas tendo em consideração a durabilidade, a permeabilidade e a degradação.

· **Material das luvas**

A escolha das luvas mais adequadas não depende apenas do material, mas também de outras características qualitativas e varia de fabricante para fabricante. O facto de o produto ser composto por uma variedade de materiais leva a que não seja possível prever a duração dos mesmos e, conseqüentemente, das luvas, sendo assim necessário proceder a uma verificação antes da sua utilização.

· **Tempo de penetração no material das luvas**

Deve informar-se sobre a validade exacta das suas luvas junto do fabricante e respeitá-la.

· **Protecção dos olhos:**

Óculos de protecção totalmente fechados

### SECÇÃO 9: Propriedades físico-químicas

· **9.1 Informações sobre propriedades físicas e químicas de base**· **Informações gerais**· **Aspetto:**· **Forma:**

Líquido

· **Cor:**

Incolor

· **Odor:**

Irritante

· **Limiar olfactivo:**

Não determinado.

· **valor pH em 20 °C:**

7

· **Mudança do estado:**· **Ponto de fusão/ponto de congelação:**

Não determinado.

· **Ponto de ebulição inicial e intervalo de ebulição:**

Não determinado.

· **Ponto de inflamação:**

Não aplicável.

· **Inflamabilidade (sólido, gás):**

Não determinado.

· **Temperatura de decomposição:**

Não determinado.

· **Temperatura de autoignição:**

O produto não é auto-inflamável.

· **Propriedades explosivas:**

O produto não corre o risco de explosão.

· **Limites de explosão:**· **Inferior:**

Não determinado.

· **Superior:**

Não determinado.

· **Pressão de vapor:**

Não aplicável.

· **Densidade em 20 °C:**1,2 g/cm<sup>3</sup>· **Densidade relativa**

Não determinado.

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· <b>Densidade de vapor</b>	Não aplicável.
· <b>Taxa de evaporação:</b>	Não aplicável.
· <b>Solubilidade em / miscibilidade com água:</b>	Solúvel.
· <b>Coefficiente de partição: n-octanol/água</b>	Não determinado.
· <b>Viscosidade:</b>	
· <b>Dinâmico:</b>	Não aplicável.
· <b>Cinemático:</b>	Não aplicável.
· <b>9.2 Outras informações</b>	Não existe mais nenhuma informação relevante disponível.

### SECÇÃO 10: Estabilidade e reactividade

- **10.1 Reactividade** Não existe mais nenhuma informação relevante disponível.
- **10.2 Estabilidade química**
- **Decomposição térmica / condições a evitar:** Não existe decomposição se usado de acordo com as especificações.
- **10.3 Possibilidade de reações perigosas** Não se conhecem reações perigosas.
- **10.4 Condições a evitar** Não existe mais nenhuma informação relevante disponível.
- **10.5 Materiais incompatíveis:** Não existe mais nenhuma informação relevante disponível.
- **10.6 Produtos de decomposição perigosos:** Não se conhecem produtos de decomposição perigosos.

### SECÇÃO 11: Informação toxicológica

- **11.1 Informações sobre os efeitos toxicológicos**
- **Toxicidade aguda** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.

· **Valores LD/LC50 relevantes para a classificação:**

7783-20-2 sulfato de amónio

por via oral | LD50 | 2.840 mg/kg (rat)

- **Efeito de irritabilidade primário:**
- **Corrosão/irritação cutânea**  
Provoca irritação cutânea.
- **Lesões oculares graves/irritação ocular**  
Provoca irritação ocular grave.
- **Sensibilização respiratória ou cutânea**  
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Efeitos CMR (carcinogenicidade, mutagenicidade e efeitos tóxicos na reprodução)**
- **Mutagenicidade em células germinativas**  
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Carcinogenicidade** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Toxicidade reprodutiva** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Toxicidade para órgãos-alvo específicos (STOT) - exposição única**  
Pode provocar irritação das vias respiratórias.
- **Toxicidade para órgãos-alvo específicos (STOT) - exposição repetida**  
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Perigo de aspiração** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.

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### SECÇÃO 12: Informação ecológica

- **12.1 Toxicidade**
- **Toxicidade aquática:** Não existe mais nenhuma informação relevante disponível.
- **12.2 Persistência e degradabilidade** Não existe mais nenhuma informação relevante disponível.
- **12.3 Potencial de bioacumulação** Não existe mais nenhuma informação relevante disponível.
- **12.4 Mobilidade no solo** Não existe mais nenhuma informação relevante disponível.
- **Outras indicações ecológicas:**
- **Indicações gerais:**  
Classe de perigo para a água 1 (D) (auto-classificação): pouco perigoso para a água  
Não deixar chegar substâncias concentradas, ou seja quantidades grandes, às águas subterrâneas, aos cursos de água ou à canalização.
- **12.5 Resultados da avaliação PBT e mPmB**
- **PBT:** Não aplicável.
- **mPmB:** Não aplicável.
- **12.6 Outros efeitos adversos** Não existe mais nenhuma informação relevante disponível.

### SECÇÃO 13: Considerações relativas à eliminação

- **13.1 Métodos de tratamento de resíduos**
- **Recomendação:** Não se pode eliminar juntamente com o lixo doméstico. Não permita que chegue à canalização.
- **Embalagens contaminadas:**
- **Recomendação:** Eliminação residual conforme o regulamento dos serviços públicos.
- **Meio de limpeza recomendado:** Água, eventualmente com adição de produtos de limpeza

### SECÇÃO 14: Informações relativas ao transporte

- |   |                |
|---|----------------|
| · <b>14.1 Número ONU</b>  |                |
| · <b>ADR, IMDG, IATA</b>  | não aplicável  |
| · <b>14.2 Designação oficial de transporte da ONU</b>   |                |
| · <b>ADR, IMDG, IATA</b>  | não aplicável  |
| · <b>14.3 Classes de perigo para efeitos de transporte</b>  |                |
| · <b>ADR, ADN, IMDG, IATA</b>   |                |
| · <b>Classe</b>   | não aplicável  |
| · <b>14.4 Grupo de embalagem</b>  |                |
| · <b>ADR, IMDG, IATA</b>  | não aplicável  |
| · <b>14.5 Perigos para o ambiente:</b>  | Não aplicável. |
| · <b>14.6 Precauções especiais para o utilizador</b>  | Não aplicável. |
| · <b>14.7 Transporte a granel em conformidade com o anexo II da Convenção MARPOL e o Código IBC</b> | Não aplicável. |
| · <b>UN "Model Regulation":</b>   | não aplicável  |

PT

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### SECÇÃO 15: Informação sobre regulamentação

- **15.1 Regulamentação/legislação específica para a substância ou mistura em matéria de saúde, segurança e ambiente**
- **Directiva 2012/18/UE**
- **Substâncias perigosas designadas - ANEXO I Nenhum dos componentes se encontra listado.**
- **Regulamento (CE) n.º 1907/2006 ANEXO XVII Condições de limitação: 65**

- **Directiva 2011/65/UE relativa à restrição do uso de determinadas substâncias perigosas em equipamentos eléctricos e electrónicos - Anexo II**

Nenhum dos componentes se encontra listado.

- **15.2 Avaliação da segurança química: Não foi realizada nenhuma Avaliação de Segurança Química.**

### SECÇÃO 16: Outras informações

As informações fornecidas baseiam-se no estado actual dos nossos conhecimentos, embora não representem uma garantia das propriedades do produto e não fundamentam uma relação contratual.

- **Frases relevantes**

H315 Provoca irritação cutânea.

H319 Provoca irritação ocular grave.

H335 Pode provocar irritação das vias respiratórias.

- **Abreviaturas e acrónimos:**

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

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Corrosão/irritação cutânea – Categoria 2

Eye Irrit. 2: Lesões oculares graves/irritação ocular – Categoria 2

STOT SE 3: Toxicidade para órgãos-alvo específicos (exposição única) – Categoria 3

# Ficha de datos de seguridad

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### SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

- **1.1 Identificador del producto**
- **Nombre comercial:** MICHEL'S FIXATIVE
- **Número del artículo:** 18040-05, 18040-10, 18040-20, MICHEL'S FIXATIVE
- **UFI:** HVJ1-50GX-A005-7963
- **1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**  
No existen más datos relevantes disponibles.
- **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio
- **1.3 Datos del proveedor de la ficha de datos de seguridad**
- **Fabricante/distribuidor:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Aname**  
C/ Perez Galdos no. 2  
28693 Quijorna  
Madrid, Spain  
Tel: +34.91.816.89.50  
Fax: +34.91.816.85.94  
email: ventas@aname.es
- **Área de información:** Product safety department
- **1.4 Teléfono de emergencia:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECCIÓN 2: Identificación de los peligros

- **2.1 Clasificación de la sustancia o de la mezcla**
- **Clasificación con arreglo al Reglamento (CE) n° 1272/2008**



GHS07

Skin Irrit. 2 H315 Provoca irritación cutánea.  
Eye Irrit. 2 H319 Provoca irritación ocular grave.  
STOT SE 3 H335 Puede irritar las vías respiratorias.

- **2.2 Elementos de la etiqueta**
- **Etiquetado con arreglo al Reglamento (CE) n° 1272/2008**  
El producto se ha clasificado y etiquetado de conformidad con el reglamento CLP.
- **Pictogramas de peligro**



GHS07

- **Palabra de advertencia** Atención
- **Componentes peligrosos a indicar en el etiquetaje:**  
sulfato de amonio

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- **Indicaciones de peligro**

H315 Provoca irritación cutánea.  
 H319 Provoca irritación ocular grave.  
 H335 Puede irritar las vías respiratorias.

- **Consejos de prudencia**

P261 Evitar respirar el polvo/el humo/el gas/la niebla/los vapores/el aerosol.  
 P280 Llevar guantes de protección / gafas de protección / máscara de protección.  
 P304+P340 EN CASO DE INHALACIÓN: Transportar a la persona al aire libre y mantenerla en una posición que le facilite la respiración.  
 P305+P351+P338 EN CASO DE CONTACTO CON LOS OJOS: Enjuagar con agua cuidadosamente durante varios minutos. Quitar las lentes de contacto cuando estén presentes y pueda hacerse con facilidad. Proseguir con el lavado.  
 P405 Guardar bajo llave.  
 P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

- **2.3 Otros peligros**

- **Resultados de la valoración PBT y mPmB**

- **PBT:** No aplicable.
- **mPmB:** No aplicable.

### SECCIÓN 3: Composición/información sobre los componentes

- **3.2 Caracterización química: Mezclas**

- **Descripción:** Mezcla formada por las sustancias especificadas a continuación con adiciones no peligrosas.

- **Componentes peligrosos:**

CAS: 7783-20-2	sulfato de amonio	>25- ≤50%
EINECS: 231-984-1	⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	

- **Indicaciones adicionales:** El texto de los posibles riesgos aquí indicados se puede consultar en el capítulo 16.

### SECCIÓN 4: Primeros auxilios

- **4.1 Descripción de los primeros auxilios**

- **Instrucciones generales:**

Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.

- **En caso de inhalación del producto:**

Suministrar aire fresco; eventualmente hacer respiración artificial, calor. Si los trastornos persisten, consultar al médico.

Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.

- **En caso de contacto con la piel:** Lavar inmediatamente con agua y jabón y enjuagar bien.

- **En caso de con los ojos:**

Limpiar los ojos abiertos durante varios minutos con agua corriente. En caso de trastornos persistentes consultar un médico.

- **En caso de ingestión:** Consultar un médico si los trastornos persisten.

- **4.2 Principales síntomas y efectos, agudos y retardados** No existen más datos relevantes disponibles.

- **4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente** No existen más datos relevantes disponibles.

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### SECCIÓN 5: Medidas de lucha contra incendios

- **5.1 Medios de extinción**
- **Sustancias extintoras apropiadas:** Combatir los incendios con medidas adaptados al ambiente circundante.
- **5.2 Peligros específicos derivados de la sustancia o la mezcla** No existen más datos relevantes disponibles.
- **5.3 Recomendaciones para el personal de lucha contra incendios**
- **Equipo especial de protección:** Colocarse la protección respiratoria.

### SECCIÓN 6: Medidas en caso de vertido accidental

- **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia** No es necesario.
- **6.2 Precauciones relativas al medio ambiente:**  
Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.
- **6.3 Métodos y material de contención y de limpieza:**  
Desechar el material contaminado como vertido según item 13.  
Asegurar suficiente ventilación.
- **6.4 Referencia a otras secciones**  
Ver capítulo 7 para mayor información sobre una manipulación segura.  
Ver capítulo 8 para mayor información sobre el equipo personal de protección.  
Para mayor información sobre cómo desechar el producto, ver capítulo 13.

### SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**  
Desempolvar cuidadosamente.  
Asegurar suficiente ventilación /aspiración en el puesto de trabajo.
- **Prevención de incendios y explosiones:** No se requieren medidas especiales.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**  
Mantener el recipiente cerrado herméticamente.
- **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

### SECCIÓN 8: Controles de exposición/protección individual

- **Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:**  
Sin datos adicionales, ver punto 7.
- **8.1 Parámetros de control**
- **Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:**  
El producto no contiene cantidades relevantes de sustancias con valores límite que exijan un control en el puesto de trabajo.
- **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.
- **8.2 Controles de la exposición**
- **Equipo de protección individual:**
- **Medidas generales de protección e higiene:**  
Mantener alejado de alimentos, bebidas y alimentos para animales.  
Quitarse de inmediato la ropa ensuciada o impregnada.  
Lavarse las manos antes de las pausas y al final del trabajo.

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Evitar el contacto con los ojos y la piel.

- **Protección respiratoria:**

Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.

- **Protección de manos:**



Guantes de protección

El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.

Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.

Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.

- **Material de los guantes**

La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser evaluada de antemano, de modo que los guantes deberán ser controlados antes de su utilización.

- **Tiempo de penetración del material de los guantes**

El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.

- **Protección de ojos:**



Gafas de protección herméticas

### SECCIÓN 9: Propiedades físicas y químicas

- **9.1 Información sobre propiedades físicas y químicas básicas**

- **Datos generales**

- **Aspecto:**

- **Forma:** Líquido

- **Color:** Incoloro

- **Olor:** Irritante

- **Umbral olfativo:** No determinado.

- **valor pH a 20 °C:** 7

- **Cambio de estado**

- **Punto de fusión/punto de congelación:** Indeterminado.

- **Punto inicial de ebullición e intervalo de ebullición:** Indeterminado.

- **Punto de inflamación:** No aplicable.

- **Inflamabilidad (sólido, gas):** No determinado.

- **Temperatura de descomposición:** No determinado.

- **Temperatura de auto-inflamación:** El producto no es autoinflamable.

- **Propiedades explosivas:** El producto no es explosivo.

- **Límites de explosión:**

- **Inferior:** No determinado.

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· <b>Superior:</b>	No determinado.
· <b>Presión de vapor:</b>	No aplicable.
· <b>Densidad a 20 °C:</b>	1,2 g/cm <sup>3</sup>
· <b>Densidad relativa</b>	No determinado.
· <b>Densidad de vapor</b>	No aplicable.
· <b>Tasa de evaporación:</b>	No aplicable.
· <b>Solubilidad en / miscibilidad con agua:</b>	Soluble.
· <b>Coefficiente de reparto: n-octanol/agua:</b>	No determinado.
· <b>Viscosidad:</b>	
· <b>Dinámica:</b>	No aplicable.
· <b>Cinemática:</b>	No aplicable.
· <b>9.2 Otros datos</b>	No existen más datos relevantes disponibles.

### SECCIÓN 10: Estabilidad y reactividad

- **10.1 Reactividad** No existen más datos relevantes disponibles.
- **10.2 Estabilidad química**
- **Descomposición térmica / condiciones que deben evitarse:** No se descompone al emplearse adecuadamente.
- **10.3 Posibilidad de reacciones peligrosas** No se conocen reacciones peligrosas.
- **10.4 Condiciones que deben evitarse** No existen más datos relevantes disponibles.
- **10.5 Materiales incompatibles:** No existen más datos relevantes disponibles.
- **10.6 Productos de descomposición peligrosos:** No se conocen productos de descomposición peligrosos.

### SECCIÓN 11: Información toxicológica

- **11.1 Información sobre los efectos toxicológicos**
- **Toxicidad aguda** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

· **Valores LD/LC50 (dosis letal /dosis letal = 50%) relevantes para la clasificación:**

7783-20-2 sulfato de amonio		
Oral	LD50	2.840 mg/kg (rat)

- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas**  
Provoca irritación cutánea.
- **Lesiones o irritación ocular graves**  
Provoca irritación ocular grave.
- **Sensibilización respiratoria o cutánea**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Carcinogenicidad** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad para la reproducción** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición única**  
Puede irritar las vías respiratorias.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

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# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 18.05.2021

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· **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

### SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**  
Nivel de riesgo para el agua 1 (autoclasificación): escasamente peligroso para el agua  
En estado no diluido o no neutralizado, no dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados.
- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

### SECCIÓN 13: Consideraciones relativas a la eliminación

- **13.1 Métodos para el tratamiento de residuos**
- **Recomendación:** No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.
- **Embalajes sin limpiar:**
- **Recomendación:** Eliminar conforme a las disposiciones oficiales.
- **Producto de limpieza recomendado:** Agua, eventualmente añadiendo productos de limpieza.

### SECCIÓN 14: Información relativa al transporte

- |   |               |
|---|---------------|
| · <b>14.1 Número ONU</b>  |               |
| · <b>ADR, IMDG, IATA</b>  | suprimido     |
| · <b>14.2 Designación oficial de transporte de las Naciones Unidas</b>                        |               |
| · <b>ADR, IMDG, IATA</b>  | suprimido     |
| · <b>14.3 Clase(s) de peligro para el transporte</b>  |               |
| · <b>ADR, ADN, IMDG, IATA</b>   |               |
| · <b>Clase</b>  | suprimido     |
| · <b>14.4 Grupo de embalaje</b>   |               |
| · <b>ADR, IMDG, IATA</b>  | suprimido     |
| · <b>14.5 Peligros para el medio ambiente:</b>  | No aplicable. |
| · <b>14.6 Precauciones particulares para los usuarios</b>                                     | No aplicable. |
| · <b>14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC</b> | No aplicable. |
| · <b>"Reglamentación Modelo" de la UNECE:</b>   | suprimido     |

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### SECCIÓN 15: Información reglamentaria

- **15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**
- **Directiva 2012/18/UE**
- **Sustancias peligrosas nominadas - ANEXO I** ninguno de los componentes está incluido en una lista
- **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII** Restricciones: 65
- **Directiva 2011/65/UE sobre restricciones a la utilización de determinadas sustancias peligrosas en aparatos eléctricos y electrónicos - Anexo II**
- ninguno de los componentes está incluido en una lista
- **15.2 Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

### SECCIÓN 16: Otra información

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contractual.

- **Frases relevantes**
- H315 Provoca irritación cutánea.
- H319 Provoca irritación ocular grave.
- H335 Puede irritar las vías respiratorias.
- **Abreviaturas y acrónimos:**
- 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
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Skin Irrit. 2: Corrosión o irritación cutáneas – Categoría 2
- Eye Irrit. 2: Lesiones oculares graves o irritación ocular – Categoría 2
- STOT SE 3: Toxicidad específica en determinados órganos ( exposición única) – Categoría 3