

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

## 1 Identification

- **Product identifier**
- **Trade name:** CytoFix
- **Article number:** 22805-01, 22805-02
- **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: info@emsdiasum.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**



GHS08 Health hazard

Muta. 1B H340 May cause genetic defects.

Carc. 1A H350 May cause cancer.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

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



GHS07



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
Petroleum gases, liquefied, sweetened  
Ethyl Alcohol, denatured
- **Hazard statements**  
Causes serious eye irritation.  
May cause genetic defects.  
May cause cancer.
- **Precautionary statements**  
Wear protective gloves/protective clothing/eye protection/face protection.  
Wash thoroughly after handling.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

Trade name: **CytoFix**

(Contd. of page 1)

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Store locked up.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = *1
FIRE	0	Fire = 0
REACTIVITY	1	Reactivity = 1

· **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:**

68476-86-8	Petroleum gases, liquefied, sweetened	50-100%
64-17-5	Ethyl Alcohol, denatured	10-25%

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Generally the product does not irritate the skin.

· **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.

US

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

Trade name: CytoFix

(Contd. of page 2)

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 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:**

64-17-5	Ethyl Alcohol, denatured	1,800 ppm
---------	--------------------------	-----------

- **PAC-2:**

64-17-5	Ethyl Alcohol, denatured	3300* ppm
---------	--------------------------	-----------

- **PAC-3:**

64-17-5	Ethyl Alcohol, denatured	15000* ppm
---------	--------------------------	------------

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
- **Information about protection against explosions and fires:**  
Protect from heat.  
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

US

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

Trade name: CytoFix

(Contd. of page 3)

## 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 following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.  
At this time, the remaining constituent has no known exposure limits.

### 64-17-5 Ethyl Alcohol, denatured

PEL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
REL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
TLV	Short-term value: 1880 mg/m <sup>3</sup> , 1000 ppm

- **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.  
Store protective clothing separately.  
Avoid contact with the eyes.  
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

US

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

Trade name: CytoFix

(Contd. of page 4)

## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Clear
Odor:	Alcohol-like
Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Not applicable, as aerosol.

· **Flash point:** Not applicable, as aerosol.

· **Flammability (solid, gaseous):** Not flammable.

· **Ignition temperature:** 425 °C (797 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower:	3.5 Vol %
Upper:	15.0 Vol %

· **Vapor pressure at 20 °C (68 °F):** 59 hPa (44 mm Hg)

· **Density:** Not determined.

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**

Water: Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

Dynamic:	Not determined.
Kinematic:	Not determined.

· **Solvent content:**

Organic solvents:	21.0 %
Water:	2.0 %
VOC content:	21.0 %
	214.3 g/l / 1.79 lb/gl

· **Other information** 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.

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

Trade name: CytoFix

(Contd. of page 5)

- **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:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **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:  
Irritant  
Carcinogenic.  
The product can cause inheritable damage.
- **Carcinogenic categories**

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

64-17-5 Ethyl Alcohol, denatured

1

- **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 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **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.

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017


Reviewed on 05/16/2017

Trade name: CytoFix

(Contd. of page 6)

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

## 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, ADR, IATA</b></li> <li>· <b>IMDG</b></li> </ul>	<p style="text-align: center;">Void UN1950</p>
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT, ADR, IATA</b></li> <li>· <b>IMDG</b></li> </ul>	<p style="text-align: center;">Void AEROSOLS</p>
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT, ADR, IATA</b></li> <li>· <b>Class</b></li> </ul>	<p style="text-align: center;">Void</p>
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> </ul>	
<div style="text-align: center;">  </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	<p style="text-align: center;">2.1 2.1</p>
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, ADR, IATA</b></li> </ul>	<p style="text-align: center;">Void</p>
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> </ul>	<p style="text-align: center;">Not applicable.</p>
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Stowage Code</b></li> </ul>	<p style="text-align: center;">Not applicable. F-D,S-U SW1 Protected from sources of heat.</p>
<ul style="list-style-type: none"> <li>· <b>Segregation Code</b></li> </ul>	<p style="text-align: center;">SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters. SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.</p>
<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul>	<p style="text-align: center;">Not applicable.</p>
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	<p style="text-align: center;">Void</p>

US

(Contd. on page 8)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

Trade name: CytoFix

(Contd. of page 7)

## 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):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are 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:**

64-17-5 Ethyl Alcohol, denatured

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

64-17-5 Ethyl Alcohol, denatured

A3

· **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).

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** Danger

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

Petroleum gases, liquefied, sweetened

Ethyl Alcohol, denatured

· **Hazard statements**

Causes serious eye irritation.

May cause genetic defects.

May cause cancer.

· **Precautionary statements**

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

Wash thoroughly after handling.

Obtain special instructions before use.

(Contd. on page 9)



# Safety Data Sheet

## acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

**Trade name: CytoFix**

(Contd. of page 8)

*Do not handle until all safety precautions have been read and understood.*  
*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*  
*IF exposed or concerned: Get medical advice/attention.*  
*If eye irritation persists: Get medical advice/attention.*  
*Store locked up.*  
*Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **National regulations:**

· **Information about limitation of use:**

*Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.*

· **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** 05/16/2017 / -

· **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)*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety **Health***

***TLV: Threshold Limit Value***

***PEL: Permissible Exposure Limit***

***REL: Recommended Exposure Limit***

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

***Muta. 1B: Germ cell mutagenicity – Category 1B***

***Carc. 1A: Carcinogenicity – Category 1A***

# Safety Data Sheet

## according to WHS Regulations

Printing date 16.05.2017

Revision: 16.05.2017

### 1 Identification

- **Product identifier**
- **Trade name:** CytoFix
- **Article number:** 22805-01, 22805-02
- **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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://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)
- 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](http://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**



GHS08 health hazard

Muta. 1B H340 May cause genetic defects.

Carc. 1A H350 May cause cancer.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

- **Label elements**

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

(Contd. on page 2)

# Safety Data Sheet

## according to WHS Regulations

Printing date 16.05.2017

Revision: 16.05.2017

Trade name: CytoFix

(Contd. of page 1)

### · Hazard pictograms



GHS07 GHS08

### · Signal word Danger

### · Hazard-determining components of labelling:

Petroleum gases, liquefied, sweetened  
Ethyl Alcohol, denatured

### · Hazard statements

Causes serious eye irritation.  
May cause genetic defects.  
May cause cancer.

### · Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.  
Wash thoroughly after handling.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**IF exposed or concerned:** Get medical advice/attention.  
**If eye irritation persists:** Get medical advice/attention.  
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:

68476-86-8	Petroleum gases, liquefied, sweetened	50-100%
64-17-5	Ethyl Alcohol, denatured	10-25%

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

## 4 First Aid Measures

### · Description of first aid measures

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.  
· **After skin contact:** Generally the product does not irritate the skin.  
· **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.

(Contd. on page 3)

## Safety Data Sheet according to WHS Regulations

Printing date 16.05.2017

Revision: 16.05.2017

Trade name: CytoFix

(Contd. of page 2)

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

### 5 Fire Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 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**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
- **Information about fire - and explosion protection:**  
Protect from heat.  
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Protect from heat and direct sunlight.
- **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.

(Contd. on page 4)

# Safety Data Sheet

## according to WHS Regulations

Printing date 16.05.2017

Revision: 16.05.2017

Trade name: CytoFix

(Contd. of page 3)

- **Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

<b>64-17-5 Ethyl Alcohol, denatured</b>
---

WES	Long-term value: 1880 mg/m <sup>3</sup> , 1000 ppm
-----	--

- **Additional information:** The lists valid during the making 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.

Store protective clothing separately.

Avoid contact with the eyes.

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:** Clear

- **Odour:** Alcohol-like

- **Odour threshold:** Not determined.

(Contd. on page 5)

## Safety Data Sheet according to WHS Regulations

Printing date 16.05.2017

Revision: 16.05.2017

Trade name: CytoFix

(Contd. of page 4)

· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b>	
<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	Not applicable, as aerosol.
· <b>Flash point:</b>	Not applicable, as aerosol.
· <b>Flammability (solid, gas):</b>	Not applicable.
· <b>Ignition temperature:</b>	425 °C
· <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.
· <b>Explosion limits:</b>	
<b>Lower:</b>	3.5 Vol %
<b>Upper:</b>	15.0 Vol %
· <b>Vapour pressure at 20 °C:</b>	59 hPa
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with water:</b>	Fully miscible.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	21.0 %
<b>Water:</b>	2.0 %
<b>VOC (EC)</b>	21.00 %
· <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.

-AU-

(Contd. on page 6)

# Safety Data Sheet

## according to WHS Regulations

Printing date 16.05.2017

Revision: 16.05.2017

Trade name: CytoFix

(Contd. of page 5)

### 11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **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:  
Irritant  
Carcinogenic.  
The product can cause inheritable damage.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
Muta. 1B, Carc. 1A

### 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 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **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

- **UN-Number**
- **ADG, ADN, IATA** not regulated
- **IMDG** UN1950

(Contd. on page 7)

## Safety Data Sheet according to WHS Regulations

Printing date 16.05.2017

Revision: 16.05.2017

Trade name: CytoFix

(Contd. of page 6)

· **UN proper shipping name**  
 · **ADG, ADN, IATA** not regulated  
 · **IMDG** AEROSOLS

· **Transport hazard class(es)**  
 · **ADG, ADN, IATA**  
 · **Class** not regulated

· **IMDG**

· **Class** 2.1  
 · **Label** 2.1

· **Packing group**  
 · **ADG, IATA** not regulated

· **Environmental hazards:** Not applicable.

· **Special precautions for user** Not applicable.  
 · **EMS Number:** F-D,S-U  
 · **Stowage Code** SW1 Protected from sources of heat.

· **Segregation Code** SW22 For AEROSOLS with a maximum capacity of 1 litre:  
 Category A. For AEROSOLS with a capacity above 1 litre:  
 Category B. For WASTE AEROSOLS: Category C, Clear of  
 living quarters.  
 SG69 For AEROSOLS with a maximum capacity of 1 litre:  
 Segregation as for class 9. Stow "separated from" class 1  
 except for division 1.4. For AEROSOLS with a capacity  
 above 1 litre: Segregation as for the appropriate subdivision  
 of class 2. For WASTE AEROSOLS: Segregation as for the  
 appropriate subdivision of class 2.

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

· **UN "Model Regulation":** not regulated

### 15 Regulatory information

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

· **Australian Inventory of Chemical Substances**

All ingredients are listed.

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

None of the ingredients is listed.

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

(Contd. on page 8)



# Safety Data Sheet

## according to WHS Regulations

Printing date 16.05.2017

Revision: 16.05.2017

Trade name: CytoFix

(Contd. of page 7)

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** *Danger*

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

*Petroleum gases, liquefied, sweetened*  
*Ethyl Alcohol, denatured*

· **Hazard statements**

*Causes serious eye irritation.*  
*May cause genetic defects.*  
*May cause cancer.*

· **Precautionary statements**

*Wear protective gloves/protective clothing/eye protection/face protection.*  
*Wash thoroughly after handling.*  
*Obtain special instructions before use.*  
*Do not handle until all safety precautions have been read and understood.*  
*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*  
*Continue rinsing.*  
*IF exposed or concerned: Get medical advice/attention.*  
*If eye irritation persists: Get medical advice/attention.*  
*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.*

· **National regulations:**

· **Information about limitation of use:**

*Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.*  
*Exceptions can be made by the authorities in certain cases.*

· **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.*

· **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)*  
*VOC: Volatile Organic Compounds (USA, EU)*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*vPvB: very Persistent and very Bioaccumulative*  
*Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A*  
*Muta. 1B: Germ cell mutagenicity – Category 1B*  
*Carc. 1A: Carcinogenicity – Category 1A*

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

## 1 Identification

- **Product identifier**
- **Trade name:** CytoFix
- **Article number:** 22805-01, 22805-02
- **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: info@emsdiasum.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**



GHS08 Health hazard

Germ Cell Mutagenicity - Category 1B H340 May cause genetic defects.

Carcinogenicity - Category 1A H350 May cause cancer.



GHS07

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

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



GHS07



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
 Petroleum gases, liquefied, sweetened  
 Ethyl Alcohol, denatured
- **Hazard statements**  
 Causes serious eye irritation.  
 May cause genetic defects.  
 May cause cancer.
- **Precautionary statements**  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 Wash thoroughly after handling.

(Contd. on page 2)

CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

**Trade name: CytoFix**

(Contd. of page 1)

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

**IF exposed or concerned:** Get medical advice/attention.

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

Store locked up.

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

· **Hazard description:**

· **WHMIS-symbols:**

D2A - Very toxic material causing other toxic effects



· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 1

· **HMIS-ratings (scale 0 - 4)**



Health = \*1

Fire = 0

Reactivity = 1

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

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

· **Dangerous components:**

68476-86-8	Petroleum gases, liquefied, sweetened	40-70% w/w
64-17-5	Ethyl Alcohol, denatured	10-30% w/w

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Generally the product does not irritate the skin.

· **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

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

Trade name: CytoFix

(Contd. of page 2)

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 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**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
- **Information about protection against explosions and fires:**  
Protect from heat.  
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Protect from heat and direct sunlight.
- **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:**

### 64-17-5 Ethyl Alcohol, denatured

EL Short-term value: 1000 ppm

EV Long-term value: 1,900 mg/m<sup>3</sup>, 1,000 ppm

(Contd. on page 4)

CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

Trade name: CytoFix

(Contd. of page 3)

· **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.

Store protective clothing separately.

Avoid contact with the eyes.

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: Clear

· **Odor:** Alcohol-like

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Not applicable, as aerosol.

· **Flash point:** Not applicable, as aerosol.

(Contd. on page 5)

CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

Trade name: CytoFix

(Contd. of page 4)

· <b>Flammability (solid, gaseous):</b>	Not flammable.
· <b>Ignition temperature:</b>	425 °C
· <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>	3,5 Vol %
<b>Upper:</b>	15,0 Vol %
· <b>Vapor pressure at 20 °C:</b>	59 hPa
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	21,0 %
<b>Water:</b>	2,0 %
· <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:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **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:  
Irritant

(Contd. on page 6)

CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

Trade name: CytoFix

(Contd. of page 5)

Carcinogenic.  
The product can cause inheritable damage.

· **Carcinogenic categories**

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

64-17-5	Ethyl Alcohol, denatured	I
---------	--------------------------	---

· **NTP (National Toxicology Program)**

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 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **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, TDG, ADN, IATA</b>     | UN1950   |
| · <b>IMDG</b>                    |          |
|                                  |          |
| · <b>UN proper shipping name</b> | Void     |
| · <b>DOT, TDG, ADN, IATA</b>     | AEROSOLS |
| · <b>IMDG</b>                    |          |

(Contd. on page 7)

CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

Trade name: CytoFix

(Contd. of page 6)

· **Transport hazard class(es)**· **DOT, TDG, ADN, IATA**· **Class** Void· **IMDG**· **Class** 2.1· **Label** 2.1· **Packing group**· **DOT, TDG, IATA** Void· **Environmental hazards:** Not applicable.· **Special precautions for user** Not applicable.· **EMS Number:** F-D,S-U· **Stowage Code** SW1 Protected from sources of heat.

SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.

· **Segregation Code** SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.· **UN "Model Regulation":** 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):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Canadian substance listings:**· **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

64-17-5 Ethyl Alcohol, denatured

(Contd. on page 8)

CA



# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2017

Reviewed on 05/16/2017

Trade name: CytoFix

(Contd. of page 7)

· **Canadian Ingredient Disclosure list (limit 1%)**

None of the ingredients is listed.

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

· **Hazard pictograms**



GHS07    GHS08

· **Signal word** *Danger*

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

*Petroleum gases, liquefied, sweetened*

*Ethyl Alcohol, denatured*

· **Hazard statements**

*Causes serious eye irritation.*

*May cause genetic defects.*

*May cause cancer.*

· **Precautionary statements**

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

*Wash thoroughly after handling.*

*Obtain special instructions before use.*

*Do not handle until all safety precautions have been read and understood.*

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

*IF exposed or concerned: Get medical advice/attention.*

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

*Store locked up.*

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

· **National regulations:**

· **Information about limitation of use:**

*Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.*

*Exceptions can be made by the authorities in certain cases.*

· **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** 05/16/2017 / -

· **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)*

*WHMIS: Workplace Hazardous Materials Information System (Canada)*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

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

Printing date 16.05.2017

Revision: 16.05.2017

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

- **1.1 Product identifier**
- **Trade name:** CytoFix
- **Article number:** 22805-01, 22805-02
- **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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://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**



GHS08 health hazard

Muta. 1B H340 May cause genetic defects.

Carc. 1A H350 May cause cancer.

Aerosol 3 H229 Pressurised container: May burst if heated.

- **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**



GHS08

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
Petroleum gases, liquefied, sweetened
- **Hazard statements**  
H229 Pressurised container: May burst if heated.  
H340 May cause genetic defects.  
H350 May cause cancer.
- **Precautionary statements**  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P251 Do not pierce or burn, even after use.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

(Contd. on page 2)

# Safety data sheet

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

Printing date 16.05.2017

Revision: 16.05.2017

**Trade name: CytoFix**

(Contd. of page 1)

- P405 Store locked up.  
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
 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: 68476-86-8 EINECS: 270-705-8	Petroleum gases, liquefied, sweetened Flam. Gas 1, H220; Flam. Liq. 1, H224; Muta. 1B, H340; Carc. 1A, H350; Press. Gas C, H280	50-100%
CAS: 64-17-5 EINECS: 200-578-6	Ethyl Alcohol, denatured Flam. Liq. 2, H225	10-25%

- **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**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **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:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

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

(Contd. on page 3)

# Safety data sheet

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

Printing date 16.05.2017

Revision: 16.05.2017

Trade name: CytoFix

(Contd. of page 2)

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**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
- **Information about fire - and explosion protection:**  
Protect from heat.  
Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Protect from heat and direct sunlight.
- **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:**

<b>64-17-5 Ethyl Alcohol, denatured</b>
---

WEL   Long-term value: 1920 mg/m <sup>3</sup> , 1000 ppm
--

- **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.  
Store protective clothing separately.  
Avoid contact with the eyes.  
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.

(Contd. on page 4)

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

Printing date 16.05.2017

Revision: 16.05.2017

**Trade name: CytoFix**

(Contd. of page 3)

*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

## 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>	Clear
<b>Odour:</b>	Alcohol-like
<b>Odour threshold:</b>	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	Not applicable, as aerosol.

- **Flash point:** Not applicable, as aerosol.

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

- **Ignition temperature:** 425 °C

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Product is not selfigniting.

- **Explosive properties:** Product does not present an explosion hazard.

- **Explosion limits:**

<b>Lower:</b>	3.5 Vol %
<b>Upper:</b>	15.0 Vol %

- **Vapour pressure at 20 °C:** 59 hPa

- **Density:** Not determined.

- **Relative density** Not determined.

- **Vapour density** Not determined.

- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with water:**

Fully miscible.

- **Partition coefficient: n-octanol/water:** Not determined.

(Contd. on page 5)

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

Printing date 16.05.2017

Revision: 16.05.2017

Trade name: CytoFix

(Contd. of page 4)

- |                                |  |
|--------------------------------|--|
| · <b>Viscosity:</b>            |  |
| <b>Dynamic:</b>                | Not determined.                            |
| <b>Kinematic:</b>              | Not determined.                            |
| · <b>Solvent content:</b>      |  |
| <b>Organic solvents:</b>       | 21.0 %                                     |
| <b>Water:</b>                  | 2.0 %                                      |
| <b>VOC (EC)</b>                | 21.00 %                                    |
| · <b>9.2 Other information</b> | 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.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **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**  
May cause genetic defects.
- **Carcinogenicity**  
May cause cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **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 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.

(Contd. on page 6)

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

Printing date 16.05.2017

Revision: 16.05.2017

Trade name: CytoFix

(Contd. of page 5)

- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

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

- **14.1 UN-Number**
- **ADR, ADN, IATA** not regulated
- **IMDG** UN1950

- **14.2 UN proper shipping name**
- **ADR, ADN, IATA** not regulated
- **IMDG** AEROSOLS

- **14.3 Transport hazard class(es)**
- **ADR, ADN, IATA**
- **Class** not regulated

- **IMDG**



- **Class** 2.1
- **Label** 2.1

- **14.4 Packing group**
- **ADR, IATA** not regulated

- **14.5 Environmental hazards:** Not applicable.

- **14.6 Special precautions for user** Not applicable.
- **EMS Number:** F-D,S-U
- **Stowage Code** SW1 Protected from sources of heat.  
SW22 For AEROSOLS with a maximum capacity of 1 litre:  
Category A. For AEROSOLS with a capacity above 1 litre:  
Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.

(Contd. on page 7)

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

Printing date 16.05.2017

Revision: 16.05.2017

**Trade name: CytoFix**

(Contd. of page 6)

· <b>Segregation Code</b>	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· <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: 28, 29
- **National regulations:**
- **Information about limitation of use:**  
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.
- **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.

- **Relevant phrases**  
H220 Extremely flammable gas.  
H224 Extremely flammable liquid and vapour.  
H225 Highly flammable liquid and vapour.  
H280 Contains gas under pressure; may explode if heated.  
H340 May cause genetic defects.  
H350 May cause cancer.
- **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)  
VOC: Volatile Organic Compounds (USA, EU)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Flam. Gas 1: Flammable gases – Category 1  
Aerosol 3: Aerosols – Category 3  
Press. Gas C: Gases under pressure – Compressed gas  
Flam. Liq. 1: Flammable liquids – Category 1  
Flam. Liq. 2: Flammable liquids – Category 2  
Muta. 1B: Germ cell mutagenicity – Category 1B  
Carc. 1A: Carcinogenicity – Category 1A



# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 16.05.2017

Herziening van: 16.05.2017

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

- **1.1 Productidentificatie**
- **Handelsnaam:** CytoFix
- **Artikelnummer:** 22805-01, 22805-02
- **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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Aurion**  
Binnenhaven 5  
6709 PD Wageningen  
The Netherlands  
Tel: 31 317 415094  
Fax: 31 317 415955  
email: [info@aurion.nl](mailto: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**



GHS08 gezondheidsgevaar

Muta. 1B H340 Kan genetische schade veroorzaken.

Carc. 1A H350 Kan kanker veroorzaken.

Aerosol 3 H229 Houder onder druk: kan open barsten bij verhitting.

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



GHS08

- **Signaalwoord** Gevaar
- **Gevaaraanduidende componenten voor de etikettering:**  
aardoliegassen, vloeibaar gemaakt, stankvrij gemaakt

(Vervolg op blz. 2)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 16.05.2017

Herziening van: 16.05.2017

**Handelsnaam: CytoFix**

(Vervolg van blz. 1)

- **Gevarenaanduidingen**
  - H229 Houder onder druk: kan open barsten bij verhitting.
  - H340 Kan genetische schade veroorzaken.
  - H350 Kan kanker veroorzaken.
- **Veiligheidsaanbevelingen**
  - P210 Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken.
  - P251 Ook na gebruik niet doorboren of verbranden.
  - P280 Beschermende handschoenen/beschermende kleding/oogbescherming/gelaatsbescherming dragen.
  - P405 Achter slot bewaren.
  - P410+P412 Tegen zonlicht beschermen. Niet blootstellen aan temperaturen boven 50 °C/122 °F.
  - 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: 68476-86-8 EINECS: 270-705-8	aardoliegassen, vloeibaar gemaakt, stankvrij gemaakt Flam. Gas 1, H220; Flam. Liq. 1, H224; Muta. 1B, H340; Carc. 1A, H350 Press. Gas C, H280	50-100%
CAS: 64-17-5 EINECS: 200-578-6	ethanol Flam. Liq. 2, H225	10-25%

- **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**
- **Na het inademen:** Frisse lucht toedienen; bij klachten arts ontbieden.
- **Na huidcontact:** Over het algemeen is het produkt niet prikkelend voor de huid
- **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:**  
CO<sub>2</sub>, bluspoeder of waterstraal. Grotere brand met waterstraal bestrijden of met schuim, dat tegen alcohol bestand is.

(Vervolg op blz. 3)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 16.05.2017

Herziening van: 16.05.2017

**Handelsnaam:** CytoFix

(Vervolg van blz. 2)

- **5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**  
Geen verdere relevante informatie verkrijgbaar.
- **5.3 Advies voor brandweertieners**
- **Speciale beschermende kleding:** Geen bijzondere maatregelen nodig.

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

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting 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**  
Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.  
Tanks voorzichtig openen en behandelen.
- **Informatie m.b.t. brand- en ontploffingsgevaar:**  
Beschermen tegen hitte.  
Ademhalingstoestellen gereedhouden.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:**  
De overheidsbepalingen m.b.t. de opslag van drukgaspakkingen moeten in acht genomen worden.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:**  
Tanks ondoordringbaar gesloten houden.  
Tegen hitte en directe zonnestralen beschermen.
- **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:**

#### 64-17-5 ethanol

WGW	Korte termijn waarde: 1900 mg/m <sup>3</sup> , 990 ppm
	Lange termijn waarde: 260 mg/m <sup>3</sup> , 35 ppm

- **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.

(Vervolg op blz. 4)

# Veiligheidsinformatieblad volgens 1907/2006/EG, Artikel 31

datum van de druk: 16.05.2017

Herziening van: 16.05.2017

**Handelsnaam: CytoFix**

(Vervolg van blz. 3)

Vóór de pauze en aan het einde van werktijd handen wassen.

Beschermende kleding afzonderlijk bewaren.

Aanraking met de ogen vermijden.

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 ademhalingsstoestel gebruiken.

• **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:** Helder

• **Geur:** Alcoholachtig

• **Geurdrempelwaarde:** Niet bepaald.

• **pH-waarde:** Niet bepaald.

• **Toestandsverandering**

**Smelt-/vriespunt:** Niet bepaald.

**Beginkookpunt en kooktraject:** Vanwege aerosol niet bruikbaar.

• **Vlampunt:** Vanwege aerosol niet bruikbaar.

• **Ontvlambaarheid (vast, gas):** Niet bruikbaar.

• **Ontstekingstemperatuur:** 425 °C

• **Ontledingstemperatuur:** Niet bepaald.

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

(Vervolg op blz. 5)

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 16.05.2017

Herziening van: 16.05.2017

**Handelsnaam:** CytoFix

(Vervolg van blz. 4)

· <b>Ontploffingseigenschappen:</b>	Het produkt is niet ontploffingsgevaarlijk.
· <b>Ontploffingsgrenzen:</b>	
<b>Onderste:</b>	3,5 Vol %
<b>Bovenste:</b>	15,0 Vol %
· <b>Dampspanning bij 20 °C:</b>	59 hPa
· <b>Dichtheid:</b>	Niet bepaald.
· <b>Relatieve dichtheid</b>	Niet bepaald.
· <b>Dampdichtheid</b>	Niet bepaald.
· <b>Verdampingsnelheid</b>	Niet bruikbaar.
· <b>Oplosbaarheid in/mengbaarheid met Water:</b>	Volledig mengbaar.
· <b>Verdelingscoëfficiënt: n-octanol/water:</b>	Niet bepaald.
· <b>Viscositeit</b>	
<b>Dynamisch:</b>	Niet bepaald.
<b>Kinematisch:</b>	Niet bepaald.
· <b>Oplosmiddelgehalte:</b>	
<b>Organisch oplosmiddel:</b>	21,0 %
<b>Water:</b>	2,0 %
<b>VOC (EG)</b>	21,00 %
· <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.
- **Primaire aandoening:**
- **Huidcorrosie/-irritatie** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Ernstig oogletsel/oogirritatie** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **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**  
Kan genetische schade veroorzaken.
- **Kankerverwekkendheid**  
Kan kanker veroorzaken.
- **Giftigheid voor de voortplanting** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij eenmalige blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

(Vervolg op blz. 6)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 16.05.2017

Herziening van: 16.05.2017

**Handelsnaam:** CytoFix

(Vervolg van blz. 5)

- **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.
- **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)  
Gevaar voor water klasse 2 (D) (Zelfclassificatie): gevaar voor water  
Niet lozen in grondwater, in oppervlaktewater of in riolering.  
Gevaar voor drinkwater zelfs bij uitlopen van geringe hoeveelheden in de ondergrond.
- **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 terechtkomen.
- **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, ADN, IATA</b>   | Niet van toepassing |
| · <b>IMDG</b>   | UNI950              |
| · <b>14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN</b>        |                     |
| · <b>ADR, ADN, IATA</b>   | Niet van toepassing |
| · <b>IMDG</b>   | AEROSOLS            |
| · <b>14.3 Transportgevarenklasse(n)</b>   |                     |
| · <b>ADR, ADN, IATA</b>   |                     |
| · <b>klasse</b>   | Niet van toepassing |
| · <b>IMDG</b>   |                     |
|  |                     |
| · <b>Class</b>  | 2.1                 |
| · <b>Label</b>  | 2.1                 |

(Vervolg op blz. 7)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 16.05.2017

Herziening van: 16.05.2017

**Handelsnaam:** CytoFix

(Vervolg van blz. 6)

· <b>14.4 Verpakkingsgroep:</b> · <b>ADR, IATA</b>	Niet van toepassing
· <b>14.5 Milieugevaren:</b>	Niet bruikbaar.
· <b>14.6 Bijzondere voorzorgen voor de gebruiker</b> · <b>EMS-nummer:</b> · <b>Stowage Code</b>	Niet bruikbaar. F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· <b>Segregation Code</b>	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· <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

68476-86-8	aardoliegassen, vloeibaar gemaakt, stankvrij gemaakt
------------	--

64-17-5	ethanol
---------	---------

##### · SZW-lijst van mutagene stoffen

68476-86-8	aardoliegassen, vloeibaar gemaakt, stankvrij gemaakt
------------	--

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

64-17-5	ethanol	IA
---------	---------	----

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

64-17-5	ethanol	IA
---------	---------	----

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

64-17-5	ethanol	x
---------	---------	---

#### · 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: 28, 29

#### · Nationale voorschriften:

##### · Aanwijzingen m.b.t. tewerkstellingsbeperking:

Werknemers mogen aan de kankerverwekkende gevaarlijke stoffen van deze toebereiding niet blootgesteld worden. In uitzonderingsgevallen kan de overheid speciale vergunningen afgeven.

· **Gevaarklasse v. water:** Waterbezwaarlijkheid (NL): B(4)

(Vervolg op blz. 8)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 16.05.2017

Herziening van: 16.05.2017

**Handelsnaam: CytoFix**

(Vervolg van blz. 7)

· **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**

- H220 Zeer licht ontvlambaar gas.
- H224 Zeer licht ontvlambare vloeistof en damp.
- H225 Licht ontvlambare vloeistof en damp.
- H280 Bevat gas onder druk; kan ontploffen bij verwarming.
- H340 Kan genetische schade veroorzaken.
- H350 Kan kanker 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)
- VOC: Volatile Organic Compounds (USA, EU)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Gas 1: Ontvlambare gassen – Categorie 1
- Aerosol 3: Aerosolen – Categorie 3
- Press. Gas C: Gassen onder druk – Samengeperst gas
- Flam. Liq. 1: Ontvlambare vloeistoffen – Categorie 1
- Flam. Liq. 2: Ontvlambare vloeistoffen – Categorie 2
- Muta. 1B: Mutageniteit in geslachtscellen – Categorie 1B
- Carc. 1A: Kankerverwekkendheid – Categorie 1A



# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 16.05.2017

Révision: 16.05.2017

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

- **1.1 Identificateur de produit**
- **Nom du produit:** CytoFix
- **Code du produit:** 22805-01, 22805-02
- **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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://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**



GHS08 danger pour la santé

Muta. 1B H340 Peut induire des anomalies génétiques.

Carc. 1A H350 Peut provoquer le cancer.

Aerosol 3 H229 Récipient sous pression: peut éclater sous l'effet de la chaleur.

- **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**



GHS08

- **Mention d'avertissement** Danger
- **Composants dangereux déterminants pour l'étiquetage:**  
gaz de pétrole liquéfiés adoucis
- **Mentions de danger**  
H229 Récipient sous pression: peut éclater sous l'effet de la chaleur.  
H340 Peut induire des anomalies génétiques.  
H350 Peut provoquer le cancer.
- **Conseils de prudence**  
P210 Tenir à l'écart de la chaleur, des surfaces chaudes, des étincelles, des flammes nues et de toute autre source d'inflammation. Ne pas fumer.  
P251 Ne pas perforer, ni brûler, même après usage.

(suite page 2)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 16.05.2017

Révision: 16.05.2017

**Nom du produit: CytoFix**

(suite de la page 1)

- P280 Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.
- P405 Garder sous clef.
- P410+P412 Protéger du rayonnement solaire. Ne pas exposer à une température supérieure à 50 °C/122 °F.
- P501 Éliminer le contenu/récipient 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: 68476-86-8 EINECS: 270-705-8	gaz de pétrole liquéfiés adoucis Flam. Gas 1, H220; Flam. Liq. 1, H224; Muta. 1B, H340; Carc. 1A, H350; Press. Gas C, H280	50-100%
CAS: 64-17-5 EINECS: 200-578-6	éthanol Flam. Liq. 2, H225	10-25%

- **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**
- **Après inhalation:** Donner de l'air frais, consulter un médecin en cas de troubles.
- **Après contact avec la peau:** En règle générale, le produit n'irrite pas la peau.
- **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:**  
CO<sub>2</sub>, poudre d'extinction ou eau pulvérisée. Combattre les foyers importants avec de l'eau pulvérisée ou de la mousse résistant à l'alcool.
- **5.2 Dangers particuliers résultant de la substance ou du mélange**  
Pas d'autres informations importantes disponibles.
- **5.3 Conseils aux pompiers**
- **Équipement spécial de sécurité:** Aucune mesure particulière n'est requise.

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

- **6.1 Précautions individuelles, équipement de protection et procédures d'urgence** Pas nécessaire.

(suite page 3)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 16.05.2017

Révision: 16.05.2017

**Nom du produit: CytoFix**

(suite de la page 2)

- **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**  
Veiller à une bonne ventilation/aspiration du poste de travail.  
Ouvrir et manipuler les récipients avec précaution.
- **Préventions des incendies et des explosions:**  
Tenir à l'abri de la chaleur.  
Tenir des appareils de protection respiratoire prêts.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:**  
Respecter les prescriptions légales pour le stockage des emballages sous pression.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:**  
Tenir les emballages hermétiquement fermés.  
Protéger de la forte chaleur et du rayonnement direct du soleil.
- **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:**

#### 64-17-5 éthanol

VME	Valeur momentanée: 9500 mg/m <sup>3</sup> , 5000 ppm
	Valeur à long terme: 1900 mg/m <sup>3</sup> , 1000 ppm

- **Remarques supplémentaires:**  
Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.
- **8.2 Contrôles de l'exposition**
- **Equipement 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.  
Conserver à part les vêtements de protection.  
Eviter tout contact avec les yeux.  
Eviter tout contact avec les yeux et avec la peau.

(suite page 4)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 16.05.2017

Révision: 16.05.2017

Nom du produit: **CytoFix**

(suite de la page 3)

- **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.*

- **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:**

<b>Forme:</b>	Liquide
<b>Couleur:</b>	Transparent
<b>Odeur:</b>	Genre alcool
<b>Seuil olfactif:</b>	Non déterminé.

- **valeur du pH:** Non déterminé.

- **Changement d'état**

<b>Point de fusion/point de congélation:</b>	Non déterminé.
<b>Point initial d'ébullition et intervalle d'ébullition:</b>	Non applicable, s'agissant d'un aérosol.

- **Point d'éclair** Non applicable, s'agissant d'un aérosol.

- **Inflammabilité (solide, gaz):** Non applicable.

- **Température d'inflammation:** 425 °C

- **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:**

<b>Inférieure:</b>	3,5 Vol %
--------------------	-----------

(suite page 5)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 16.05.2017

Révision: 16.05.2017

Nom du produit: **CytoFix**

(suite de la page 4)

<b>Supérieure:</b>	15,0 Vol %
· <b>Pression de vapeur à 20 °C:</b>	59 hPa
· <b>Densité:</b>	Non déterminée.
· <b>Densité relative</b>	Non déterminé.
· <b>Densité de vapeur:</b>	Non déterminé.
· <b>Taux d'évaporation:</b>	Non applicable.
· <b>Solubilité dans/miscibilité avec l'eau:</b>	Entièrement miscible
· <b>Coefficient de partage: n-octanol/eau:</b>	Non déterminé.
· <b>Viscosité:</b>	
<b>Dynamique:</b>	Non déterminé.
<b>Cinématique:</b>	Non déterminé.
· <b>Teneur en solvants:</b>	
<b>Solvants organiques:</b>	21,0 %
<b>Eau:</b>	2,0 %
<b>VOC (CE)</b>	21,00 %
· <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.
- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Lésions oculaires graves/irritation oculaire**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **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)**
- **Mutagénicité sur les cellules germinales**  
Peut induire des anomalies génétiques.
- **Cancérogénicité**  
Peut provoquer le cancer.
- **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**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

(suite page 6)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 16.05.2017

Révision: 16.05.2017

Nom du produit: **CytoFix**

(suite de la page 5)

- **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.


### 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 2 (D) (Classification propre): polluant  
Ne pas laisser pénétrer dans la nappe phréatique, les eaux ou les canalisations.  
Danger pour l'eau potable dès fuite d'une petite quantité dans le sous-sol.
- **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>  |          |
| · ADR, ADN, IATA  | néant    |
| · IMDG  | UN1950   |
| <b>· 14.2 Désignation officielle de transport de l'ONU</b>                          |          |
| · ADR, ADN, IATA  | néant    |
| · IMDG  | AEROSOLS |
| <b>· 14.3 Classe(s) de danger pour le transport</b>                                 |          |
| · ADR, ADN, IATA  |          |
| · Classe  | néant    |
| <hr style="border-top: 1px dashed black;"/>   |          |
| · IMDG  |          |
|  |          |
| · Class   | 2.1      |
| · Label   | 2.1      |

(suite page 7)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 16.05.2017

Révision: 16.05.2017

Nom du produit: **CytoFix**

(suite de la page 6)

· 14.4 Groupe d'emballage · ADR, IATA	néant
· 14.5 Dangers pour l'environnement:	Non applicable.
· 14.6 Précautions particulières à prendre par l'utilisateur · No EMS: · Stowage Code  · Segregation Code	Non applicable. F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters. SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC	Non applicable.
· "Règlement type" de l'ONU:	néant

### 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: 28, 29
- Prescriptions nationales:
- Indications sur les restrictions de travail:
 

Le personnel ne doit pas être exposé aux substances dangereuses cancérigènes contenues dans cette préparation.  
Les autorités peuvent autoriser des exceptions dans des cas particuliers.
- 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
  - H220 Gaz extrêmement inflammable.
  - H224 Liquide et vapeurs extrêmement inflammables.
  - H225 Liquide et vapeurs très inflammables.
  - H280 Contient un gaz sous pression; peut exploser sous l'effet de la chaleur.
  - H340 Peut induire des anomalies génétiques.
  - H350 Peut provoquer le cancer.
- Acronymes et abréviations:
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route

(suite page 8)

**Fiche de données de sécurité**  
**selon 1907/2006/CE, Article 31**

Date d'impression : 16.05.2017

Révision: 16.05.2017

**Nom du produit: CytoFix**

(suite de la page 7)

*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)*  
*VOC: Volatile Organic Compounds (USA, EU)*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*vPvB: very Persistent and very Bioaccumulative*  
*Flam. Gas 1: Gaz inflammables – Catégorie 1*  
*Aerosol 3: Aérosols – Catégorie 3*  
*Press. Gas C: Gaz sous pression – Gaz comprimé*  
*Flam. Liq. 1: Liquides inflammables – Catégorie 1*  
*Flam. Liq. 2: Liquides inflammables – Catégorie 2*  
*Muta. 1B: Mutagénicité sur les cellules germinales – Catégorie 1B*  
*Carc. 1A: Cancérogénicité – Catégorie 1A*

FR



# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 16.05.2017

überarbeitet am: 16.05.2017

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

- **1.1 Produktidentifikator**
- **Handelsname:** CytoFix
- **Artikelnummer:** 22805-01, 22805-02
- **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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)  
  
Science Services GmbH  
Unterhachinger Str. 75  
81737 München Germany  
Tel: +49(0)89 18 93 668-0  
[safety@scienceservices.de](mailto:safety@scienceservices.de)  
  
24h Giftnotruf Munchen: +49 (0)89 19240  
Toxikologische Abteilung der II. Medizinischen Klinik  
rechts der Isar, Munchen. - [www.toxinfo.org](http://www.toxinfo.org)
- **Auskunftgebender Bereich:** 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**



GHS08 Gesundheitsgefahr

Muta. 1B H340 Kann genetische Defekte verursachen.

Carc. 1A H350 Kann Krebs erzeugen.

Aerosol 3 H229 Behälter steht unter Druck: kann bei Erwärmung bersten.

- **2.2 Kennzeichnungselemente**
- **Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008**  
Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.
- **Gefahrenpiktogramme**



GHS08

(Fortsetzung auf Seite 2)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 16.05.2017

überarbeitet am: 16.05.2017

**Handelsname:** CytoFix

(Fortsetzung von Seite 1)

- **Signalwort** Gefahr

- **Gefahrbestimmende Komponenten zur Etikettierung:**

- Erdölgase, verflüssigt, gesüßt

- **Gefahrenhinweise**

- H229 Behälter steht unter Druck: kann bei Erwärmung bersten.

- H340 Kann genetische Defekte verursachen.

- H350 Kann Krebs erzeugen.

- **Sicherheitshinweise**

- P210 Von Hitze, heißen Oberflächen, Funken, offenen Flammen und anderen Zündquellen fernhalten. Nicht rauchen.

- P251 Nicht durchstechen oder verbrennen, auch nicht nach Gebrauch.

- P280 Schutzhandschuhe/Schutzkleidung/Augenschutz/Gesichtsschutz tragen.

- P405 Unter Verschluss aufbewahren.

- P410+P412 Vor Sonnenbestrahlung schützen. Nicht Temperaturen über 50 °C/122 °F aussetzen.

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

- **Zusätzliche Angaben:**

- Nur für gewerbliche Anwender.

- **2.3 Sonstige Gefahren**

- **Ergebnisse der PBT- und vPvB-Beurteilung**

- **PBT:** Nicht anwendbar.

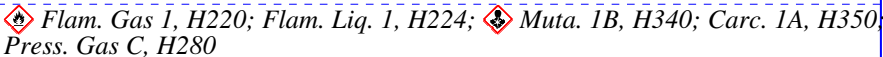
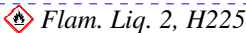
- **vPvB:** Nicht anwendbar.

### ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

- **3.2 Chemische Charakterisierung: Gemische**

- **Beschreibung:** Gemisch aus nachfolgend angeführten Stoffen mit ungefährlichen Beimengungen.

- **Gefährliche Inhaltsstoffe:**

CAS: 68476-86-8	Erdölgase, verflüssigt, gesüßt	50-100%
EINECS: 270-705-8		
CAS: 64-17-5	Ethanol	10-25%
EINECS: 200-578-6		

- **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**

- **Nach Einatmen:** Frischluftzufuhr, bei Beschwerden Arzt aufsuchen.

- **Nach Hautkontakt:** Im allgemeinen ist das Produkt nicht hautreizend.

- **Nach Augenkontakt:**

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

- **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.

DE

(Fortsetzung auf Seite 3)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 16.05.2017

überarbeitet am: 16.05.2017

Handelsname: CytoFix

(Fortsetzung von Seite 2)

### ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

- **5.1 Löschmittel**
- **Geeignete Löschmittel:**  
CO<sub>2</sub>, Löschpulver oder Wassersprühstrahl. Größeren Brand mit Wassersprühstrahl oder alkoholbeständigem Schaum bekämpfen.
- **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**  
Keine weiteren relevanten Informationen verfügbar.
- **5.3 Hinweise für die Brandbekämpfung**
- **Besondere Schutzausrüstung:** Keine besonderen Maßnahmen erforderlich.

### 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**  
Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.  
Behälter mit Vorsicht öffnen und handhaben.
- **Hinweise zum Brand- und Explosionsschutz:**  
Vor Hitze schützen.  
Atemschutzgeräte bereithalten.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:**  
Die behördlichen Vorschriften für das Lagern von Druckgaspackungen sind zu beachten.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:**  
Behälter dicht geschlossen halten.  
Vor Hitze und direkter Sonnenbestrahlung schützen.
- **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.

(Fortsetzung auf Seite 4)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 16.05.2017

überarbeitet am: 16.05.2017

**Handelsname:** CytoFix

(Fortsetzung von Seite 3)

### · 8.1 Zu überwachende Parameter

#### · Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:

##### 64-17-5 Ethanol

AGW	Langzeitwert: 960 mg/m <sup>3</sup> , 500 ml/m <sup>3</sup> 2(II);DFG, Y
-----	---

· **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.

Getrennte Aufbewahrung der Schutzkleidung.

Berührung mit den Augen vermeiden.

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:** Klar

· **Geruch:** Alkoholartig

(Fortsetzung auf Seite 5)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 16.05.2017

überarbeitet am: 16.05.2017

Handelsname: CytoFix

(Fortsetzung von Seite 4)

· Geruchsschwelle:	Nicht bestimmt.
· pH-Wert:	Nicht bestimmt.
· Zustandsänderung Schmelzpunkt/Gefrierpunkt:	Nicht bestimmt.
Siedebeginn und Siedebereich:	Nicht anwendbar, da Aerosol.
· Flammpunkt:	Nicht anwendbar, da Aerosol.
· Entzündbarkeit (fest, gasförmig):	Nicht anwendbar.
· Zündtemperatur:	425 °C
· Zersetzungstemperatur:	Nicht bestimmt.
· Selbstentzündungstemperatur:	Das Produkt ist nicht selbstentzündlich.
· Explosive Eigenschaften:	Das Produkt ist nicht explosionsgefährlich.
· Explosionsgrenzen:	
Untere:	3,5 Vol %
Obere:	15,0 Vol %
· Dampfdruck bei 20 °C:	59 hPa
· Dichte:	Nicht bestimmt.
· Relative Dichte	Nicht bestimmt.
· Damfdichte	Nicht bestimmt.
· Verdampfungsgeschwindigkeit	Nicht anwendbar.
· Löslichkeit in / Mischbarkeit mit Wasser:	Vollständig mischbar.
· Verteilungskoeffizient: n-Octanol/Wasser:	Nicht bestimmt.
· Viskosität:	
Dynamisch:	Nicht bestimmt.
Kinematisch:	Nicht bestimmt.
· Lösemittelgehalt:	
Organische Lösemittel:	21,0 %
Wasser:	2,0 %
VOC (EU)	21,00 %
· 9.2 Sonstige Angaben	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.

DE

(Fortsetzung auf Seite 6)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 16.05.2017

überarbeitet am: 16.05.2017

Handelsname: CytoFix

(Fortsetzung von Seite 5)

### ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Schwere Augenschädigung/-reizung** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Sensibilisierung der Atemwege/Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
- **Keimzell-Mutagenität**  
Kann genetische Defekte verursachen.
- **Karzinogenität**  
Kann Krebs erzeugen.
- **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**  
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **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 2 (Selbsteinstufung): wassergefährdend  
Nicht in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.  
Trinkwassergefährdung bereits beim Auslaufen geringer Mengen in den Untergrund.
- **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

- **14.1 UN-Nummer**
- **ADR, ADN, IATA** entfällt

(Fortsetzung auf Seite 7)

# Sicherheitsdatenblatt


## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 16.05.2017

überarbeitet am: 16.05.2017

**Handelsname:** CytoFix

(Fortsetzung von Seite 6)

· <b>IMDG</b>	UN1950
· <b>14.2 Ordnungsgemäße UN-Versandbezeichnung</b> · <b>ADR, ADN, IATA</b> · <b>IMDG</b>	entfällt AEROSOLS
· <b>14.3 Transportgefahrenklassen</b> · <b>ADR, ADN, IATA</b> · <b>Klasse</b>	entfällt
· <b>IMDG</b> 	
· <b>Class</b> · <b>Label</b>	2.1 2.1
· <b>14.4 Verpackungsgruppe</b> · <b>ADR, IATA</b>	entfällt
· <b>14.5 Umweltgefahren:</b>	Nicht anwendbar.
· <b>14.6 Besondere Vorsichtsmaßnahmen für den Verwender</b> · <b>EMS-Nummer:</b> · <b>Stowage Code</b>  · <b>Segregation Code</b>	Nicht anwendbar. F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters. SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· <b>14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code</b>	Nicht anwendbar.
· <b>UN "Model Regulation":</b>	entfällt

### 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: 28, 29

(Fortsetzung auf Seite 8)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 16.05.2017

überarbeitet am: 16.05.2017

**Handelsname:** CytoFix

(Fortsetzung von Seite 7)

· **Nationale Vorschriften:**

· **Hinweise zur Beschäftigungsbeschränkung:**

Arbeitnehmer dürfen den in dieser Zubereitung enthaltenen krebserzeugenden Gefahrstoffen nicht ausgesetzt sein. Im Einzelfall kann die Behörde Ausnahmen zulassen.

· **Technische Anleitung Luft:**

Klasse	Anteil in %
Wasser	2,0
NK	21,0

· **Wassergefährdungsklasse:** WGK 2 (Selbsteinstufung): 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**

H220 Extrem entzündbares Gas.

H224 Flüssigkeit und Dampf extrem entzündbar.

H225 Flüssigkeit und Dampf leicht entzündbar.

H280 Enthält Gas unter Druck; kann bei Erwärmung explodieren.

H340 Kann genetische Defekte verursachen.

H350 Kann Krebs erzeugen.

· **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)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Entzündbare Gase – Kategorie 1

Aerosol 3: Aerosole – Kategorie 3

Press. Gas C: Gase unter Druck – verdichtetes Gas

Flam. Liq. 1: Entzündbare Flüssigkeiten – Kategorie 1

Flam. Liq. 2: Entzündbare Flüssigkeiten – Kategorie 2

Muta. 1B: Keimzellmutagenität – Kategorie 1B

Carc. 1A: Karzinogenität – Kategorie 1A



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

Stampato il: 16.05.2017

Revisione: 16.05.2017

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

- **1.1 Identificatore del prodotto**
- **Denominazione commerciale:** CytoFix
- **Articolo numero:** 22805-01, 22805-02
- **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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://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](http://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**



GHS08 pericolo per la salute

Muta. 1B H340 Può provocare alterazioni genetiche.

Carc. 1A H350 Può provocare il cancro.

Aerosol 3 H229 Contenitore pressurizzato: può esplodere se riscaldato.

- **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**



GHS08

- **Avvertenza Pericolo**
- **Componenti pericolosi che ne determinano l'etichettatura:**  
gas di petrolio, liquefatti, addolciti

(continua a pagina 2)

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

Stampato il: 16.05.2017

Revisione: 16.05.2017

**Denominazione commerciale:** CytoFix

(Segue da pagina 1)

**· Indicazioni di pericolo**

H229 Contenitore pressurizzato: può esplodere se riscaldato.

H340 Può provocare alterazioni genetiche.

H350 Può provocare il cancro.

**· Consigli di prudenza**

P210 Tenere lontano da fonti di calore, superfici calde, scintille, fiamme libere o altre fonti di accensione. Non fumare.

P251 Non perforare né bruciare, neppure dopo l'uso.

P280 Indossare guanti/indumenti protettivi/Proteggere gli occhi/il viso.

P405 Conservare sotto chiave.

P410+P412 Proteggere dai raggi solari. Non esporre a temperature superiori a 50 °C/122 °F.

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: 68476-86-8	gas di petrolio, liquefatti, addolciti	50-100%
EINECS: 270-705-8	Flam. Gas 1, H220; Flam. Liq. 1, H224; Muta. 1B, H340; Carc. 1A, H350; Press. Gas C, H280	
CAS: 64-17-5	etanolo	10-25%
EINECS: 200-578-6	Flam. Liq. 2, H225	

· **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**· **Inalazione:** Portare in zona ben areata, in caso di disturbi consultare il medico.· **Contatto con la pelle:** Generalmente il prodotto non è irritante per la pelle.**· 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:**CO<sub>2</sub>, polvere o acqua nebulizzata. Estinguere gli incendi di grosse dimensioni con acqua nebulizzata o con schiuma resistente all'alcool.· **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.

(continua a pagina 3)

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

Stampato il: 16.05.2017

Revisione: 16.05.2017

**Denominazione commerciale:** CytoFix

(Segue da pagina 2)

- **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** Non sono richiesti provvedimenti particolari.

### **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 ventilazione/aspirazione nei luoghi di lavoro.  
Aprire e manipolare i recipienti con cautela.
- **Indicazioni in caso di incendio ed esplosione:**  
Proteggere dal calore.  
Tener pronto il respiratore.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:**  
Osservare le disposizioni amministrative relative allo stoccaggio di spray.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:**  
Mantenere i recipienti ermeticamente chiusi.  
Proteggere dal calore e dai raggi diretti del sole.
- **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:**

**64-17-5 etanolo**

TWA	Valore a breve termine: 1884 mg/m <sup>3</sup> , 1000 ppm
A3	

- **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.  
Custodire separatamente l'equipaggiamento protettivo.

(continua a pagina 4)

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

Stampato il: 16.05.2017

Revisione: 16.05.2017

**Denominazione commerciale: CytoFix**

(Segue da pagina 3)

Evitare il contatto con gli occhi.  
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.

· **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:** Chiaro

· **Odore:** Simile all'alcool

· **Soglia olfattiva:** Non definito.

· **valori di pH:** Non definito.

· **Cambiamento di stato**

· **Punto di fusione/punto di congelamento:** Non definito.

· **Punto di ebollizione iniziale e intervallo di ebollizione:** Non applicabile a causa di aerosol.

· **Punto di infiammabilità:** Non applicabile a causa di aerosol.

· **Infiammabilità (solidi, gas):** Non applicabile.

· **Temperatura di accensione:** 425 °C

· **Temperatura di decomposizione:** Non definito.

· **Temperatura di autoaccensione:** Prodotto non autoinfiammabile.

· **Proprietà esplosive:** Prodotto non esplosivo.

(continua a pagina 5)

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

Stampato il: 16.05.2017

Revisione: 16.05.2017

**Denominazione commerciale:** CytoFix

(Segue da pagina 4)

· <b>Limiti di infiammabilità:</b>	
<b>Inferiore:</b>	3,5 Vol %
<b>Superiore:</b>	15,0 Vol %
· <b>Tensione di vapore a 20 °C:</b>	59 hPa
· <b>Densità:</b>	Non definito.
· <b>Densità relativa</b>	Non definito.
· <b>Densità di vapore:</b>	Non definito.
· <b>Velocità di evaporazione</b>	Non applicabile.
· <b>Solubilità in/Miscibilità con acqua:</b>	Completamente miscibile.
· <b>Coefficiente di ripartizione: n-ottanolo/acqua:</b>	Non definito.
· <b>Viscosità:</b>	
<b>Dinamica:</b>	Non definito.
<b>Cinematica:</b>	Non definito.
· <b>Tenore del solvente:</b>	
<b>Solventi organici:</b>	21,0 %
<b>Acqua:</b>	2,0 %
<b>VOC (CE)</b>	21,00 %
· <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.
- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Lesioni oculari gravi/irritazioni oculari gravi**  
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **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**  
Può provocare alterazioni genetiche.
- **Cancerogenicità**  
Può provocare il cancro.
- **Tossicità per la riproduzione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**  
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: 16.05.2017

Revisione: 16.05.2017

**Denominazione commerciale:** CytoFix

(Segue da pagina 5)

- **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.

### 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 2 (D) (Autoclassificazione): pericoloso  
Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature.  
Pericolo per le acque potabili anche in caso di perdite nel sottosuolo di piccole quantità di prodotto.
- **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

- **14.1 Numero ONU**
- **ADR, ADN, IATA** non applicabile
- **IMDG** UN1950

- **14.2 Nome di spedizione dell'ONU**
- **ADR, ADN, IATA** non applicabile
- **IMDG** AEROSOLS

- **14.3 Classi di pericolo connesso al trasporto**
- **ADR, ADN, IATA**
- **Classe** non applicabile

- **IMDG**



- **Class** 2.1
- **Label** 2.1

(continua a pagina 7)

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

Stampato il: 16.05.2017

Revisione: 16.05.2017

**Denominazione commerciale:** CytoFix

(Segue da pagina 6)

· <b>14.4 Gruppo di imballaggio</b> · <b>ADR, 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> · <b>Numero EMS:</b> · <b>Stowage Code</b>  · <b>Segregation Code</b>	<i>Non applicabile.</i> <i>F-D,S-U</i> <i>SW1 Protected from sources of heat.</i> <i>SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.</i> <i>SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.</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>

### 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: 28, 29
- **Disposizioni nazionali:**
- **Indicazioni relative alla limitazione delle attività lavorative:**  
*Il personale non deve essere esposto alle sostanze cancerogene contenute in questo preparato L'autorità può ammettere nei singoli casi delle eccezioni.*
- **Istruzione tecnica aria:**

Classe	quota in %
NC	21,0
- **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.*

- **Frase rilevanti**  
*H220 Gas altamente infiammabile.*  
*H224 Liquido e vapori altamente infiammabili.*  
*H225 Liquido e vapori facilmente infiammabili.*  
*H280 Contiene gas sotto pressione; può esplodere se riscaldato.*  
*H340 Può provocare alterazioni genetiche.*

(continua a pagina 8)

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

Stampato il: 16.05.2017

Revisione: 16.05.2017

**Denominazione commerciale: CytoFix**

(Segue da pagina 7)

*H350 Può provocare il cancro.***· 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)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Flam. Gas 1: Gas infiammabili – Categoria 1**Aerosol 3: Aerosol – Categoria 3**Press. Gas C: Gas sotto pressione – Gas compresso**Flam. Liq. 1: Liquidi infiammabili – Categoria 1**Flam. Liq. 2: Liquidi infiammabili – Categoria 2**Muta. 1B: Mutagenicità sulle cellule germinali – Categoria 1B**Carc. 1A: Cancerogenicità – Categoria 1A*

IT



# 물질안전보건자료 GHS에 따라라따

기압점: 2017.05.16

개정: 2017.05.16

## 1 화학제품과 회사에 관한 정보

**제품제품제명**

- **제품명:** CytoFix

- **상품번호:** 22805-01, 22805-02

해당 해당 물질이나 혼합물 관련 위험도 및 사용금지용도 추가적인 정보가 존재하지 않습니다.

- **제품의 권고 용도와 사용 상의 제한사항** 실화 학품

- **안전데이터표(Safety Data Sheet)내 공급업체 관련 정보**

- **제조자/수입자/유통업체 정보**

Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: info@emsdiasum.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

- **추가적인 정보** : 제품 특성, 취급 가능 product safety department

- **비상연락 전화번호:**

ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 유해성·위험성

- **순물질 또는 혼합물**의 분류분류



건강에 위험

생식세포 변이원성 - 구분 1B	H340 유전적인 결함을 일으킬 수 있음
발암성 - 구분 1A	H350 암을 일으킬 수 있음



심한 눈 손상성/눈 자극성 - 구분 2 H319 눈에 심한 자극을 일으킴

- **라벨표기요소**

- **라벨표기요소**

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

- **그림문자**



GHS07 GHS08

- **신호어 위험**

- **상표상에명확히위험성이표시된성분:**

Petroleum gases, liquefied, sweetened

(2 쪽에 계속)



# 물질안전보건자료 GHS에 따라

기압점: 2017.05.16

개정: 2017.05.16

제품명: CytoFix

(2 쪽부터 계속)

## 6 누출 사고 시 대처방법

- 개인적 예방조치, 보호장비 및 응급 처치 절차 필요 없음.
- 환경 오염 방지 대책 조치: 하수도망/해수면 위 물질/지하수로 도달하지 않게 한다.
- 밀폐 밀봉 용기 사용
- 화재 시 소화제 사용
- 항목 13에 따라 오염된 물질을 쓰레기로 처분한다.
- 충분한 환기가 되도록 한다.
- MSD 섹션 참조
- 안전 관리에 대한 정보는 제7 장 을 참고하시오.
- 개인 보호 장비에 대한 정보는 제8 장 을 참고하시오.
- 쓰레기 처리에 대한 정보는 제13 장 을 참고하시오.

## 7 취급 및 저장방법

- 취급 취급 취급
- 안전 안전 안전을 위한 예방 조치
- 작업장에서는 통풍이 잘 되고 습기 제거가 잘 되게 주의한다.
- 조심스럽게 용기를 개봉하거나 취급한다.
- 화재 위험을 피하기 위해 방화 대책에 관한 정보 열로부터 보호한다.
- 호흡 보호 장비를 항상 비치한다.
- 혼합 위험성 및 안정성 조건
- 보관 보관 보관
- 안전 경고 라벨링 및 방열 가스상자 보관에 관한 관청의 지시에 주의해야 한다.
- 하수 및 공기 방출 시 안전에 대한 예방 조치에 관한 정보 필요 없음
- 보관 조건에 관한 추가 정보
- 용기를 새지 않게 밀폐한 채 보관한다.
- 열이나 직사광선으로부터 보호한다.
- 구체적 최종 사용자 추가적인 정보가 존재하지 않습니다.

## 8 누출방지 및 개인보호구

- 첨단 시설 디자인에 대한 추가 정보: 더 이상 의 자료는 없음. 항목 7 을 참고하시오.

통제 통제 통제 변수

· 화학 물질의 노출기준, 생물학적 노출기준 등:	
64-17-5 Ethyl Alcohol, denatured	
TLV (KR)	장기간 의 값: 1900 mg/m <sup>3</sup> , 1000 ppm
PEL (US)	장기간 의 값: 1900 mg/m <sup>3</sup> , 1000 ppm
REL (US)	장기간 의 값: 1900 mg/m <sup>3</sup> , 1000 ppm
TLV (US)	단기간 의 값: 1880 mg/m <sup>3</sup> , 1000 ppm

- 추가 정보 정보 조사 할 당시에 유효 한 목록을 기초로 사용했다.

노출 통제 통제 통제

개인 개인 보호 구

- 일반적 보호 조치 및 위생 조치:
- 식료품, 음료수와 사료로부터 멀리 떨어져 두어 놓는다.
- 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.
- 휴식 전 이나 작업이 끝날 때 마다 손을 씻는다.
- 방호복은 따로 보관한다.
- 눈과 의 접촉 을 피 한다.

(4 쪽에 계속)

# 물질안전보건자료 GHS에 따라

기압점: 2017.05.16

개정: 2017.05.16

**제품명: CytoFix**

(3 쪽부터 계속)

눈과 피부와의 접촉은 피한다.

**· 호흡기 보호보호**

단 시간 또는 경미한 오염의 경우에는 호흡 여과기를 사용한다. 심각한 또는 장기간 노출시에는 호흡보호장비를 사용한다.

**· 보호 보호보호**



보호용 장갑

장갑재질은 제품 / 원료 / 조제를 통과시키지 않아야 하고, 내구성이 있어야 한다.

테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다.

투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

**· 장갑 의재료**

적합한 장갑의 선정은 재질 차이뿐만 아니라 품질 기준의 차이도 고려하여 이루어져야 하고 제조업종에 따라서도 다르게 선정되어야 한다. 제품은 다양한 재료로부터의 조제로 이루어지는 것이기 때문에, 장갑재질의 안정성은 사전에 예측되어질 수 있는 것이 아니고, 반드시 사용 전에 (그 안전성이) 체크되어야 한다.

**· 장갑 재료의 투과 시간** 정확한 관통 시간은 보호 장갑 제조자에 의하여 인지되고, 준수되어야 한다.

**· 보호 보호보호**



확조이는 보안경

## 9 물리화학적 특성

기본 물리화학적 특성에 대한 정보

**· 일반정보**

외형외형외형

· 물리적 상태상 태

액체

· 색:

밝은

· 냄새 냄새 냄새

알코올 종류의

· 후각역치

알맞지 않다.

· pH:

알맞지 않다.

**· 상태변화**

· 녹는점/어는점:

맞지 않는다

초기 초기 끓는점과 끓는점 범위가 연 무 질 이 기 때 문 에 해당 사항 없음.

· 인화점:

연 무 질 이 기 에 해당 사항 없음.

· 인화성 고체/기체/기체

해당 사항 없음.

· 점화 온도:

425 °C

· 분해 온도

알맞지 않다.

· 자기점화:

이 제품은 자연발화성이 없다.

· 폭발 위험:

이 제품은 폭발 위험성이 없다

인화 안전 인화 폭발 위험의 상한선 하한

· 아래로:

3.5 Vol %

· 위로 위로

15.0 Vol %

· 증기압 의 경우 20 °C:

59 hPa

(5 쪽에 계속)

# 물질안전보건자료 GHS에 따라라따

기압점: 2017.05.16

개정: 2017.05.16

**제품명:** CytoFix

(4 쪽부터 계속)

밀도 밀도 밀도	맞지 않는다.
비중 비중 비중	알맞지 않는다.
· 중기 밀도:	알맞지 않는다.
중발 중발 중발 속도	해당 사항 없음.
· 용해도:	
물:	완전히 혼합할 수 있는
· n 옥탄올/물 분배계수:	알맞지 않는다.
점도 점도 점도	
역학적:	알맞지 않는다.
동점성:	알맞지 않는다.
· 용매 내용물	
유기용매:	21.0 %
물:	2.0 %
VOC (EU)	21.00 %
기타 정보 정보	추가적인 정보가 존재하지 않습니다.

## 10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 유해 위험의 가능성 / 피해 야할 조건 규정 에 따라 사용 할 경우 해체는 없다
- 유해 반응 가능성 위험한 반응으로는 알려지지 않았다.
- 피해 야할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 유해 분해물 질 추가적인 정보가 존재하지 않습니다.
- 유해 분해 물질: 위험성 있는 분해물 들은 알려지지 않았다.

## 11 독성에 관한 정보

- 독성학적 영향 에 대한 정보
- 급성 독성 독성 독성
- 일차적 자극 효과
- 피부 피부 자극성 또는 자극성: 무 자극
- 심한 심한 자극성 또는 자극성: 자극
- 감각 화: 민감한 영향 이 없는 것으로 알려져 있다.
- 추가적인 독성에 관한 정보
- 이제 품은 유럽 공동체의 공동 분류 원칙의 합법적인 절차에 근거하여 최근 에 발 호 된 원 고 에서 아래 위험 들 의 사전 준비 에 대 하여 제시 하고 있다.
- 자극적인
- 압을 유발 하는
- 이제 품은 유 전 적 인 장애 를 유발 할 수 있다.
- 다음 다음 중독 의 잠재적 인 효과 에 대한 정보
- CMO 효과 유 발, 유 전 변 이 성 그 밖 의 중독 독성 독성
- 생식 세포 변 이 원 성 - 구 분 1B, 발 암 성 - 구 분 1A

## 12 환경에 미치는 영향

- 독성 독성 독성
- 수생 독성: 추가적인 정보가 존재하지 않습니다.

(6 쪽에 계속)

# 물질안전보건자료

## GHS에 따라라따

기압점: 2017.05.16

개정: 2017.05.16

**제품명:** CytoFix

(5 쪽부터계속)

- **지속성 및 분해성** 추가적인 정보가 존재하지 않습니다.
- **환경 시스템에서의 행동:**
- **생물농축 잠재성** 추가적인 정보가 존재하지 않습니다.
- **토양내 이동성** 추가적인 정보가 존재하지 않습니다.
- **추가적인 생태학 정보정보**

**일반 열안정성특징**

수질오염등급 2 (자체등급분류): 수질오염이된 지하수나, 하천으로또는 하수도망에도달 하지않게한다. 지하수로경미한양이유입되었을경우엔이미식수오염상태이다


- PBT(잔류성, 생물농축성, 물질분해성) 및 vPvB(고 잔류성, 고 생물농축성, 물질분해성) 결과
- PBT(잔류성, 생물농축성, 물질분해성)당사항 없음.
- vPvB(고 잔류성, 고 생물농축성, 물질분해성)당사항 없음.

기타기타 **부작용** 추가적인 정보가 존재하지 않습니다.

### 13 폐기시 주의사항

- **폐기물 처리 방법**  
권고 권고 **생물**쓰레기와 함께 처리되어서는 안된다. 하수도망으로유입되어서는 안된다.
- **비위생적 포장포장**  
권고 권고 **생물**의지침에입각한쓰레기처리.
- **추천 세정제:** 경우에따라서세제가첨가된물

### 14 운송에 필요한 정보

<b>유엔 유엔 유엔 번호</b>	
· ADR, ADN, IATA · IMDG	누락되다 UN1950
<b>적정적정적정명</b>	
· ADR, ADN, IATA · IMDG	누락되다 AEROSOLS
<b>교통 교통 교통 위험 클래스</b>	
· ADR, ADN, IATA 등급등급등급	누락되다
· IMDG	
	
· Class · Label	2.1 2.1
<b>용기등급</b>	
· ADR, IATA	누락되다
<b>환경적 유해물질:</b>	해당사항 없음.
<b>이동시 특별 취급 조치</b>	해당사항 없음.
· E 번호번호번호 · Stowage Code	F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above

(7 쪽에계속)

# 물질안전보건자료

## GHS에 따라 라다

기압점: 2017.05.16

개정: 2017.05.16

**제품명: CytoFix**

(6 쪽부터 계속)

<ul style="list-style-type: none"> <li>· <b>Segregation Code</b></li> </ul>	<p>1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.                  SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.</p>
<ul style="list-style-type: none"> <li>· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크물질 운송 운송</li> </ul>	<p>해당사항 없음.</p>
<ul style="list-style-type: none"> <li>· <b>비밀유지규제</b></li> </ul>	<p>누락되다</p>

### 15 법적 규제 현황

- 산업안전보건법에 의한 유해화학물질 규제

<b>제조제조물질:</b>	어떠한내용물도 목록화되어있지않다	
<b>허가대상물질:</b>	어떠한내용물도 목록화되어있지않다	
<b>관리대상유해물질:</b>	어떠한내용물도 목록화되어있지않다	

해당 해당 물질 또는 혼합물에 대한 유해화학물질관리법 제 15조 제 1항 제 1호를 적용

<b>· Korean Existing Chemical Inventory</b>		
68476-86-8	Petroleum gases, liquefied, sweetened	KE-28192
64-17-5	Ethyl Alcohol, denatured	KE-13217
7732-18-5	Deionized Water, Reagent Grade A.C.S.	KE-35400

- 화학물질관리법
- 사고대비물질
 

어떠한내용물도 목록화되어있지않다
-------------------
- 금지물질
 

어떠한내용물도 목록화되어있지않다
-------------------
- 제한물질
 

어떠한내용물도 목록화되어있지않다
-------------------
- 유독물질
 

어떠한내용물도 목록화되어있지않다
-------------------
- 허가물질
 

어떠한내용물도 목록화되어있지않다
-------------------

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

(8 쪽에 계속)





# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 16.05.2017

Revisión: 16.05.2017

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

- **1.1 Identificador del producto**
- **Nombre comercial:** CytoFix
- **Número del artículo:** 22805-01, 22805-02
- **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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://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](mailto: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**



GHS08 peligro para la salud

Muta. 1B H340 Puede provocar defectos genéticos.

Carc. 1A H350 Puede provocar cáncer.

Aerosol 3 H229 Recipiente a presión: Puede reventar si se calienta.

- **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**



GHS08

- **Palabra de advertencia** Peligro
- **Componentes peligrosos a indicar en el etiquetaje:**  
gases del petróleo, licuados, desazufrados

( se continua en página 2 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 16.05.2017

Revisión: 16.05.2017

**Nombre comercial: CytoFix**

( se continua en página 1 )

**· Indicaciones de peligro**

H229 Recipiente a presión: Puede reventar si se calienta.

H340 Puede provocar defectos genéticos.

H350 Puede provocar cáncer.

**· Consejos de prudencia**

P210 Mantener alejado del calor, de superficies calientes, de chispas, de llamas abiertas y de cualquier otra fuente de ignición. No fumar.

P251 No perforar ni quemar, incluso después de su uso.

P280 Llevar guantes/prendas/gafas/máscara de protección.

P405 Guardar bajo llave.

P410+P412 Proteger de la luz del sol. No exponer a temperaturas superiores a 50 °C/122 °F.

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: 68476-86-8 EINECS: 270-705-8	gases del petróleo, licuados, desazufrados Flam. Gas 1, H220; Flam. Liq. 1, H224; Muta. 1B, H340; Carc. 1A, H350; Press. Gas C, H280	50-100%
CAS: 64-17-5 EINECS: 200-578-6	etanol Flam. Liq. 2, H225	10-25%

**· 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****· En caso de inhalación del producto:** Suministrar aire fresco. En caso de trastornos, consultar al médico.**· En caso de contacto con la piel:** Por regla general, el producto no irrita la piel.**· 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.**SECCIÓN 5: Medidas de lucha contra incendios****· 5.1 Medios de extinción****· Sustancias extintoras apropiadas:**CO<sub>2</sub>, polvo extintor o chorro de agua rociada. Combatir incendios mayores con chorro de agua rociada o espuma resistente al alcohol.**· 5.2 Peligros específicos derivados de la sustancia o la mezcla** No existen más datos relevantes disponibles.

( se continua en página 3 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 16.05.2017

Revisión: 16.05.2017

Nombre comercial: CytoFix

( se continua en página 2 )

- **5.3 Recomendaciones para el personal de lucha contra incendios**
- **Equipo especial de protección:** No se requieren medidas especiales.

### 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 ítem 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**  
Asegurar suficiente ventilación /aspiración en el puesto de trabajo.  
Abrir y manejar el recipiente con cuidado.
- **Prevención de incendios y explosiones:**  
Proteger del calor.  
Tener preparados los aparatos respiratorios.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:**  
Observar las prescripciones vigentes para el almacenamiento de envases con gas comprimido.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**  
Mantener el recipiente cerrado herméticamente.  
Proteger del calor y de la luz directa del sol.
- **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:**

#### 64-17-5 etanol

LEP	Valor de corta duración: 1910 mg/m <sup>3</sup> , 1000 ppm
	s

- **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.

( se continua en página 4 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 16.05.2017

Revisión: 16.05.2017

**Nombre comercial: CytoFix**

( se continua en página 3 )

Lavarse las manos antes de las pausas y al final del trabajo.

Guardar la ropa protectora por separado.

Evitar el contacto con los ojos.

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 / substancia / preparado.

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

Claro

· **Olor:**

Similar al del alcohol

· **Umbral olfativo:**

No determinado.

· **valor pH:**

No determinado.

· **Cambio de estado**

Punto de fusión/punto de congelación:

Indeterminado.

Punto inicial de ebullición e intervalo de ebullición: No aplicable, ya que se trata de un aerosol.

· **Punto de inflamación:**

No aplicable, ya que se trata de un aerosol.

· **Inflamabilidad (sólido, gas):**

No aplicable.

· **Temperatura de ignición:**

425 °C

· **Temperatura de descomposición:**

No determinado.

( se continua en página 5 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 16.05.2017

Revisión: 16.05.2017

Nombre comercial: CytoFix

( se continua en página 4 )

· <b>Temperatura de auto-inflamación:</b>	El producto no es autoinflamable.
· <b>Propiedades explosivas:</b>	El producto no es explosivo.
· <b>Límites de explosión:</b> Inferior:	3,5 Vol %
Superior:	15,0 Vol %
· <b>Presión de vapor a 20 °C:</b>	59 hPa
· <b>Densidad:</b>	Indeterminado.
· <b>Densidad relativa</b>	No determinado.
· <b>Densidad de vapor</b>	No determinado.
· <b>Tasa de evaporación:</b>	No aplicable.
· <b>Solubilidad en / miscibilidad con agua:</b>	Completamente mezclable.
· <b>Coefficiente de reparto: n-octanol/agua:</b>	No determinado.
· <b>Viscosidad:</b> Dinámica:	No determinado.
Cinemática:	No determinado.
· <b>Concentración del disolvente:</b> Disolventes orgánicos:	21,0 %
Agua:	2,0 %
VOC (CE)	21,00 %
· <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.
- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Lesiones o irritación ocular graves**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **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**  
Puede provocar defectos genéticos.
- **Carcinogenicidad**  
Puede provocar cáncer.

( se continua en página 6 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 16.05.2017

Revisión: 16.05.2017

Nombre comercial: CytoFix

( se continua en página 5 )

- **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**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **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 2 (autoclasiación): peligroso para el agua  
No dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados.  
Una cantidad mínima vertida en el subsuelo ya representa un peligro para el agua potable.
- **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

- **14.1 Número ONU**
- **ADR, ADN, IATA** suprimido
- **IMDG** UN1950
- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR, ADN, IATA** suprimido
- **IMDG** AEROSOLS
- **14.3 Clase(s) de peligro para el transporte**
- **ADR, ADN, IATA**
- **Clase** suprimido

( se continua en página 7 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 16.05.2017

Revisión: 16.05.2017

Nombre comercial: CytoFix

( se continua en página 6 )

· **IMDG**

- **Class** 2.1
- **Label** 2.1

- **14.4 Grupo de embalaje**
- **ADR, IATA** suprimido

- **14.5 Peligros para el medio ambiente:** No aplicable.

- **14.6 Precauciones particulares para los usuarios** No aplicable.
- **Número EMS:** F-D,S-U
- **Stowage Code** SW1 Protected from sources of heat.  
SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
- **Segregation Code** SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.

- **14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC** No aplicable.

- **"Reglamentación Modelo" de la UNECE:** suprimido

### 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: 28, 29
- **Disposiciones nacionales:**
- **Indicaciones sobre las limitaciones de trabajo:**  
Los empleados no deben exponerse a las sustancias cancerígenas contenidas en el producto. En casos aislados las autoridades pueden hacer excepciones.
- **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**  
H220 Gas extremadamente inflamable.

( se continua en página 8 )

**Ficha de datos de seguridad**  
**según 1907/2006/CE, Artículo 31**

fecha de impresión 16.05.2017

Revisión: 16.05.2017

**Nombre comercial: CytoFix**

( se continua en página 7 )

*H224 Líquido y vapores extremadamente inflamables.**H225 Líquido y vapores muy inflamables.**H280 Contiene gas a presión; peligro de explosión en caso de calentamiento.**H340 Puede provocar defectos genéticos.**H350 Puede provocar cáncer.***· 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)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Flam. Gas 1: Gases inflamables – Categoría 1**Aerosol 3: Aerosoles – Categoría 3**Press. Gas C: Gases a presión – Gas comprimido**Flam. Liq. 1: Líquidos inflamables – Categoría 1**Flam. Liq. 2: Líquidos inflamables – Categoría 2**Muta. 1B: Mutagenicidad en células germinales – Categoría 1B**Carc. 1A: Carcinogenicidad – Categoría 1A*