



**SAFETY DATA SHEET**  
**In Accordance with ISO/DIS 11014**

Review Date 01/30/2018

Revision Date 01/30/2018

**1 Identification of the Substance/Mixture and Company**

**Product Name:** TriFix Tissue Fixative

**SDS Code:** SSFXTFI

**Product Description:** Tissue Fixative

**Manufacturer/Supplier:**

American MasterTech  
1330 Thurman Street  
Lodi, CA 95240  
USA  
(800) 860-4073

**European Authorized Representative:**

Emergo Europe  
Prinsessegracht 20  
2514 AP The Hague,  
The Netherlands

**Emergency Telephone Number:** Infotrac (800) 535-5053 (24 hours) - International (011) 352-323-3500

**2 Hazards Identification**

**Classification of the substance or mixture**



GHS08 Health hazard

Muta. 2                    H341 Suspected of causing genetic defects.  
Carc. 1A                    H350 May cause cancer.



GHS07

Skin Irrit. 2                H315 Causes skin irritation.  
Eye Irrit. 2A                H319 Causes serious eye irritation.  
Skin Sens. 1                H317 May cause an allergic skin reaction.

Aquatic Acute 3            H402 Harmful to aquatic life.  
Aquatic Chronic 3        H412 Harmful to aquatic life with long lasting effects.

**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:**  
ethanol

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 01/30/2018

Revision Date 01/30/2018

---

**Product Name: TriFix Tissue Fixative**


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formaldehyde

trichloroacetic acid

**Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

Harmful to aquatic life.

Harmful to aquatic life with long lasting effects.

**Precautionary statements**

Obtain special instructions before use.

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

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

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Avoid release to the environment.

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

If on skin: Wash with plenty of water.

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.

Specific treatment (see on this label).

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Wash contaminated clothing before reuse.

Store locked up.

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

**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 2

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 2

Fire = 2

Reactivity = 0

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

### 3 Composition

**Chemical characterization: Mixtures****Description:** Mixture of the substances listed below with nonhazardous additions.**Dangerous components:**

64-17-5	ethanol	10-25%
50-00-0	formaldehyde	≥2.5-≤5%

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 01/30/2018

Revision Date 01/30/2018

---

**Product Name: TriFix Tissue Fixative**


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76-03-9	trichloroacetic acid	<5%
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### 4 First Aid Measures

**Description of first aid measures**
**After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

**After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:** If symptoms persist consult doctor.

**Information for doctor:**

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

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

No further relevant information available.

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### 5 Firefighting Measures

**Extinguishing media**

**Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

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

**Advice for firefighters**

**Protective equipment:** No special measures required.

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### 6 Accidental Release Measures

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

**Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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	ethanol	1,800 ppm
50-00-0	formaldehyde	0.90 ppm
76-03-9	trichloroacetic acid	1.5 ppm
PAC-2:		
64-17-5	ethanol	3300* ppm
50-00-0	formaldehyde	14 ppm

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# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 01/30/2018

Revision Date 01/30/2018

---

**Product Name: TriFix Tissue Fixative**


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76-03-9	trichloroacetic acid	16 ppm
<b>PAC-3:</b>		
64-17-5	ethanol	15000* ppm
50-00-0	formaldehyde	56 ppm
76-03-9	trichloroacetic acid	99 ppm

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## 7 Handling and Storage

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

## 8 Exposure Controls/Personal Protection

**Additional information about design of technical systems:** No further data; see item 7.**Control parameters****Components with limit values that require monitoring at the workplace:****64-17-5 ethanol**

PEL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
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REL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
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TLV	Short-term value: 1880 mg/m <sup>3</sup> , 1000 ppm
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**50-00-0 formaldehyde**

PEL	Short-term value: 2 ppm Long-term value: 0.75 ppm see 29 CFR 1910.1048(c)
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REL	Long-term value: 0.016 ppm Ceiling limit value: 0.1* ppm *15-min; See Pocket Guide App. A
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TLV	Short-term value: 0.37 mg/m <sup>3</sup> , 0.3 ppm Long-term value: 0.12 mg/m <sup>3</sup> , 0.1 ppm DSEN; RSEN
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**76-03-9 trichloroacetic acid**

REL	Long-term value: 7 mg/m <sup>3</sup> , 1 ppm
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TLV	Long-term value: 3.34 mg/m <sup>3</sup> , 0.5 ppm
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**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.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 01/30/2018

Revision Date 01/30/2018

---

**Product Name: TriFix Tissue Fixative**


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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 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

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## 9 Physical and Chemical Properties

**Information on basic physical and chemical properties**

**General Information**

**Appearance**

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

**pH-value:** Not determined.

**Change in condition**

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

**Flash point:** Not applicable.

**Flammability (solid, gaseous):** Not applicable.

**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:**

<b>Lower:</b>	3.5 Vol %
<b>Upper:</b>	15 Vol %

**Vapor pressure at 20 °C (68 °F):** 59 hPa (44.3 mm Hg)

**Density:** Not determined.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 01/30/2018

Revision Date 01/30/2018

---

**Product Name: TriFix Tissue Fixative**


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<b>Relative density:</b>	Not determined.
<b>Vapour density:</b>	Not determined.
<b>Evaporation rate:</b>	Not determined.
<b>Solubility in / Miscibility with Water:</b>	Fully miscible.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Other information:</b>	No further relevant information available.

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## 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.

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## 11 Toxicology Information

**Information on toxicological effects**

**Acute toxicity:**

<b>LD/LC50 values that are relevant for classification:</b>		
<b>50-00-0 formaldehyde</b>		
Oral	LD50	>200 mg/kg (rat)
<b>76-03-9 trichloroacetic acid</b>		
Oral	LD50	400 mg/kg (rat)

**Primary irritant effect:**

**On the skin:** Irritant to skin and mucous membranes.

**On the eye:** Irritating effect.

**Sensitization:** Sensitization possible through skin contact.

**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

**Carcinogenic categories**

<b>IARC (International Agency for Research on Cancer)</b>		
64-17-5	ethanol	1
50-00-0	formaldehyde	1
76-03-9	trichloroacetic acid	2B
<b>NTP (National Toxicology Program)</b>		
50-00-0	formaldehyde	K

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 01/30/2018

Revision Date 01/30/2018

---

**Product Name: TriFix Tissue Fixative**


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<b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>	
50-00-0	formaldehyde

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## 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.**Ecotoxicological effects:****Remark:** Harmful to fish**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.

Harmful to aquatic organisms

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

## 13 Disposal Considerations

**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> DOT, ADR, ADN, IMDG, IATA	Not applicable
<b>UN proper shipping name</b> DOT, ADR, ADN, IMDG, IATA	Not applicable
<b>Transport hazard class(es)</b> DOT, ADR, ADN, IMDG, IATA Class	Not applicable
<b>Packing group</b> DOT, ADR, IMDG, IATA	Not applicable
<b>Environmental hazards</b> <b>Marine pollutant:</b>	No
<b>Special precautions for user:</b>	Not applicable.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 01/30/2018

Revision Date 01/30/2018

---

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<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable.
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<b>UN "Model Regulation":</b>	Not applicable
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### 15 Regulatory Information

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

**SARA**

**Section 355 (extremely hazardous substances):**

50-00-0	formaldehyde
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**Section 313 (Specific toxic chemical listings):**

50-00-0	formaldehyde
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**TSCA (Toxic Substances Control Act):**

All ingredients are listed.

**TSCA new (21st Century Act) (Substances not listed)**

76-03-9	trichloroacetic acid
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**Proposition 65**

**Chemicals known to cause cancer:**

50-00-0	formaldehyde
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76-03-9	trichloroacetic acid
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**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

64-17-5	ethanol
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**Carcinogenic categories**

**EPA (Environmental Protection Agency)**

50-00-0	formaldehyde			
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B1

76-03-9	trichloroacetic acid			
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SC

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

64-17-5	ethanol			
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A3

50-00-0	formaldehyde			
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A2

76-03-9	trichloroacetic acid			
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A3

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

50-00-0	formaldehyde			
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**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).



# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 01/30/2018

Revision Date 01/30/2018

---

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**Hazard pictograms**

GHS07 GHS08

**Signal word** Danger**Hazard-determining components of labeling:**

ethanol

formaldehyde

trichloroacetic acid

**Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

Harmful to aquatic life.

Harmful to aquatic life with long lasting effects.

**Precautionary statements**

Obtain special instructions before use.

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

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

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Avoid release to the environment.

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

If on skin: Wash with plenty of water.

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.

Specific treatment (see on this label).

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Wash contaminated clothing before reuse.

Store locked up.

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

**National regulations:****Additional classification according to Decree on Hazardous Materials:**

Carcinogenic hazardous material group III (dangerous).

**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.

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## 16 Other Information

This information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 01/30/2018

Revision Date 01/30/2018

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Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of the material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.

**Department issuing SDS:** Regulatory Department

**Contact:** Phone (800) 860-4073

**Date of preparation / last revision** 01/30/2018 / -

**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)

HMS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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

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

Skin Sens. 1: Skin sensitisation – Category 1

Muta. 2: Germ cell mutagenicity – Category 2

Carc. 1A: Carcinogenicity – Category 1A

Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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