



SAFETY DATA SHEET

In Accordance with ISO/DIS 11014

Review Date 09/21/2016

Revision Date 08/17/2016

1 Identification of the Substance/Mixture and Company

Product Name: 10% Buffered Formalin

SDS Code: SSFXBFO

Product Description: Tissue Fixative

Manufacturer/Supplier:

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

European Authorized Representative:

Emergo Europe
Moleensraat 15
2513 BH 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. 1B H350 May cause cancer.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

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:

formaldehyde

Hazard statements

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

SAFETY DATA SHEET

In Accordance with ISO/DIS 11014

Review Date 09/21/2016

Revision Date 08/17/2016

Product Name: 10% Buffered Formalin

Precautionary statements

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

Wear protective gloves.

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

Obtain special instructions before use.

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

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

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

IF ON SKIN: Wash with plenty of water.

Store locked up.

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

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

Health = 2

Fire = 0

Reactivity = 0

HMIS-ratings (scale 0 - 4)

Health = 2

Fire = 0

Reactivity = 0

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

3 Composition

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

| | | |
|---------|--------------|-----|
| 50-00-0 | formaldehyde | <5% |
| 67-56-1 | methanol | <3% |

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.**After swallowing:** If symptoms persist consult doctor.**Information for doctor:****Most important symptoms and effects, both acute and delayed:** No further relevant information available.

SAFETY DATA SHEET

In Accordance with ISO/DIS 11014

Review Date 09/21/2016

Revision Date 08/17/2016

Product Name: 10% Buffered Formalin

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

5 Firefighting Measures

Extinguishing media**Suitable extinguishing agents:**CO₂, 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:**

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.

7 Handling and Storage

Handling:**Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Information about protection against explosions and fires: Keep respiratory protective device available.**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.

SAFETY DATA SHEET

In Accordance with ISO/DIS 11014

Review Date 09/21/2016

Revision Date 08/17/2016

Product Name: 10% Buffered Formalin

Control parameters

| Components with limit values that require monitoring at the workplace: | |
|---|--|
| 50-00-0 formaldehyde | |
| PEL | Short-term value: 2 ppm Long-term value: 0.75 ppm see 29 CFR 1910.1048(c) |
| REL | Long-term value: 0.016 ppm Ceiling limit value: 0.1* ppm *15-min; See Pocket Guide App. A |
| TLV | Short-term value: NIC-0.37 mg/m ³ , NIC-0.3 ppm Long-term value: NIC-0.12 mg/m ³ , NIC-0.1 ppm Ceiling limit value: (0.37) mg/m ³ , (0.3) ppm NIC-A1; DSEN; RSEN |
| 67-56-1 methanol | |
| PEL | Long-term value: 260 mg/m ³ , 200 ppm |
| REL | Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin |
| TLV | Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm Skin; BEI |
| Ingredients with biological limit values: | |
| 67-56-1 methanol | |
| BEI | 15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific) |

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.

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

SAFETY DATA SHEET

In Accordance with ISO/DIS 11014

Review Date 09/21/2016

Revision Date 08/17/2016

Product Name: 10% Buffered Formalin

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

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

Eye protection: Tightly sealed goggles

9 Physical and Chemical Properties

Information on basic physical and chemical properties**General Information****Appearance**

| | |
|------------------------|---------------------------|
| Form: | Liquid |
| Color: | Colorless |
| Odor: | Pungent, makes eyes water |
| Odor threshold: | Not determined. |

pH-value: Not determined.

Change in condition

| | |
|-------------------------------------|-----------------|
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | 100 °C (212 °F) |

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature:

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

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

Explosion limits:

| | |
|---------------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

Vapor pressure at 20 °C (68 °F): 23 hPa (17 mm Hg)

Density at 20 °C (68 °F): 0.9875 g/cm³ (8.241 lbs/gal)

Relative density: Not determined.

Vapour density: Not determined.

Evaporation rate: Not determined.

Solubility in / Miscibility with

Water: Miscible

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

Dynamic: Not determined.

Kinematic: Not determined.

Other information: No further relevant information available.

SAFETY DATA SHEET

In Accordance with ISO/DIS 11014

Review Date 09/21/2016

Revision Date 08/17/2016

Product Name: 10% Buffered Formalin

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 Toxicology Information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

50-00-0 formaldehyde

| | | |
|------|------|------------------|
| Oral | LD50 | >200 mg/kg (rat) |
|------|------|------------------|

67-56-1 methanol

| | | |
|------|------|------------------|
| Oral | LD50 | 5628 mg/kg (rat) |
|------|------|------------------|

| | | |
|--------|------|----------------------|
| Dermal | LD50 | 15800 mg/kg (rabbit) |
|--------|------|----------------------|

Primary irritant effect:

On the skin: No irritant effect.

On the eye: No 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

IARC (International Agency for Research on Cancer)

| | | |
|---------|--------------|---|
| 50-00-0 | formaldehyde | 1 |
|---------|--------------|---|

NTP (National Toxicology Program)

| | | |
|---------|--------------|---|
| 50-00-0 | formaldehyde | K |
|---------|--------------|---|

OSHA-Ca (Occupational Safety & Health Administration)

| | | |
|---------|--------------|--|
| 50-00-0 | formaldehyde | |
|---------|--------------|--|

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.

SAFETY DATA SHEET

In Accordance with ISO/DIS 11014

Review Date 09/21/2016

Revision Date 08/17/2016

Product Name: 10% Buffered Formalin

Additional ecological information:**General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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

13 Disposal Considerations

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

14 Transport Information

| | |
|---|-----------------|
| UN-Number DOT, ADR, ADN, IMDG, IATA | Not applicable |
| UN proper shipping name DOT, ADR, ADN, IMDG, IATA | Not applicable |
| Transport hazard class(es) DOT, ADR, ADN, IMDG, IATA Class | Not applicable |
| Packing group DOT, ADR, IMDG, IATA | Not applicable |
| Environmental hazards Marine pollutant: | No |
| Special precautions for user: | Not applicable. |
| Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: | Not applicable. |
| UN "Model Regulation": | Not applicable |

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

Section 313 (Specific toxic chemical listings):

50-00-0 | formaldehyde

67-56-1 | methanol

SAFETY DATA SHEET

In Accordance with ISO/DIS 11014

Review Date 09/21/2016

Revision Date 08/17/2016

Product Name: 10% Buffered Formalin

| | | |
|---|--------------|----|
| TSCA (Toxic Substances Control Act): | | |
| All ingredients are listed. | | |
| Proposition 65 | | |
| Chemicals known to cause cancer: | | |
| 50-00-0 | formaldehyde | |
| 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: | | |
| 67-56-1 | methanol | |
| Carcinogenic categories | | |
| EPA (Environmental Protection Agency) | | |
| 50-00-0 | formaldehyde | B1 |
| TLV (Threshold Limit Value established by ACGIH) | | |
| 50-00-0 | formaldehyde | A2 |
| NIOSH-Ca (National Institute for Occupational Safety and Health) | | |
| 50-00-0 | formaldehyde | |

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:

formaldehyde

Hazard statements

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

Precautionary statements

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

Wear protective gloves.

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

Obtain special instructions before use.

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

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

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

IF ON SKIN: Wash with plenty of water.

Store locked up.

SAFETY DATA SHEET

In Accordance with ISO/DIS 11014

Review Date 09/21/2016

Revision Date 08/17/2016

Product Name: 10% Buffered Formalin

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.

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. 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 09/21/2016 / -

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)

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

BEI: Biological Exposure Limit

Skin Sens. 1: Skin sensitisation – Category 1

Muta. 2: Germ cell mutagenicity – Category 2

Carc. 1B: Carcinogenicity – Category 1B

Copyright © 2016-2017 American MasterTech Scientific Incorporated. All rights reserved.

No part of these pages may be used for any purpose other than personal use. Therefore, reproduction, modification, storage in a retrieval system or retransmission, in any form or by any means, for reasons other than personal use, is strictly prohibited without prior written permission.
