

Product code	Description
<b>SSKTJON</b>	<b>Jones Basement Membrane Reticulum Stain Kit</b>

## Components:

SSAHP03	0.5% Periodic Acid
SSAHM01	3% Methenamine Solution
SSKC624	0.2M Boric Acid
SSKC625	0.25M Sodium Borate
SSAHGCH0.2	0.2% Gold Chloride
SSKC627	3% Sodium Thiosulfate
SSSTNFR	Nuclear Fast Red Stain
SSAHS04	5% Silver Nitrate



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

Review Date 02/23/2018

Revision Date 02/14/2018

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

**Product Name:** 0.5% Periodic Acid

**SDS Code:** SSAHP03

**Product Description:** Kit Component

**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**



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

**Label elements**

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

**Hazard pictograms**



GHS07

**Signal word** Warning

**Hazard-determining components of labeling:**

orthoperiodic acid

**Hazard statements**

Harmful if swallowed.

**Precautionary statements**

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

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

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**Product Name: 0.5% Periodic Acid**

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

Health = 1

Fire = 0

Reactivity = 0

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

Health = 1

Fire = 0

Reactivity = 0

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

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### 3 Composition

**Chemical characterization: Mixtures****Description:** Mixture of the substances listed below with nonhazardous additions.**Dangerous components:** Not applicable

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### 4 First Aid Measures

**Description of first aid measures****General information:**

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

**After inhalation:** Supply fresh air; 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.**After swallowing:** Immediately call a 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:**

Dilute with plenty of water.

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

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**Product Name: 0.5% Periodic Acid**


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

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

**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**

<b>PAC-1:</b>		
10450-60-9	orthoperiodic acid	0.18 mg/m <sup>3</sup>
<b>PAC-2:</b>		
10450-60-9	orthoperiodic acid	2.1 mg/m <sup>3</sup>
<b>PAC-3:</b>		
10450-60-9	orthoperiodic acid	12 mg/m <sup>3</sup>

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## 7 Handling and Storage

**Handling:****Precautions for safe handling:** No special precautions are necessary if used correctly.**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:** None.**Specific end use(s):** No further relevant information available.

## 8 Exposure Controls/Personal Protection

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

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists that were valid during the creation were used as basis.**Exposure controls:****Personal protective equipment:****General protective and hygienic measures:** Wash hands before breaks and at the end of work.**Breathing equipment:** Not required.**Protection of hands:**

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.

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**Product Name: 0.5% Periodic Acid**


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**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:** Goggles recommended during refilling.

## 9 Physical and Chemical Properties

<b>Information on basic physical and chemical properties</b>	
<b>General Information</b>	
<b>Appearance</b>	
<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not determined.
<b>pH-value:</b>	Not determined.
<b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)
<b>Flash point:</b>	Not applicable.
<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Decomposition temperature:</b>	Not determined.
<b>Auto igniting:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure at 20 °C (68 °F):</b>	23 hPa (17.3 mm Hg)
<b>Density at 20 °C (68 °F):</b>	1.002 g/cm <sup>3</sup> (8.36169 lbs/gal)
<b>Relative density:</b>	Not determined.
<b>Vapour density:</b>	Not determined.
<b>Evaporation rate:</b>	Not determined.
<b>Solubility in / Miscibility with</b>	
<b>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.

## 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.

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**Product Name: 0.5% Periodic Acid**


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**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicology Information

**Information on toxicological effects**
**Acute toxicity:**
**Primary irritant effect:**
**On the skin:** No irritant effect.

**On the eye:** No irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:** Harmful

**Carcinogenic categories**
**IARC (International Agency for Research on Cancer)**

None of the ingredients are listed.

**NTP (National Toxicology Program)**

None of the ingredients are listed.

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

None of the ingredients are listed.

## 12 Ecological Information

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

**Persistence and degradability:** No further relevant information available.

**Behavior in environmental systems:**
**Bioaccumulative potential:** No further relevant information available.

**Mobility in soil:** No further relevant information available.

**Additional ecological information:**
**General notes:**

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

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

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

**vPvB:** Not applicable.

**Other adverse effects:** No further relevant information available.

## 13 Disposal Considerations

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

**Recommended cleansing agent:** Water, if necessary with cleansing agents.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

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Product Name: 0.5% Periodic Acid

### 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> Marine pollutant:	No
<b>Special precautions for user:</b>	Not applicable.
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable.
<b>UN "Model Regulation":</b>	Not applicable

### 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 are 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 are listed.

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

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**Carcinogenic categories**

**EPA (Environmental Protection Agency)**

None of the ingredients are listed.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: 0.5% Periodic Acid**


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<b>TLV (Threshold Limit Value established by ACGIH)</b>
None of the ingredients are listed.

<b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
None of the ingredients are listed.

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

**Hazard pictograms**



GHS07

**Signal word** Warning

**Hazard-determining components of labeling:**

orthoperiodic acid

**Hazard statements**

Harmful if swallowed.

**Precautionary statements**

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

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

**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. 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** 02/23/2018 / -

**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)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety



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

Review Date 02/23/2018

Revision Date 02/14/2018

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**Product Name: 0.5% Periodic Acid**

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OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Acute Tox. 4: Acute toxicity – Category 4

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

Review Date 02/23/2018

Revision Date 02/23/2018

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

**Product Name:** 3% Methenamine Solution

**SDS Code:** SSAHM01

**Product Description:** Laboratory Reagent

**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**



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

**Signal word** Warning

**Hazard-determining components of labeling:**

methenamine

**Hazard statements**

May cause an allergic skin reaction.

**Precautionary statements**

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

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

Wear protective gloves.

If on skin: Wash with plenty of water.

Specific treatment (see on this label).

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

Wash contaminated clothing before reuse.

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

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 02/23/2018

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**Product Name: 3% Methenamine Solution**


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

Health = 1

Fire = 0

Reactivity = 0

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

Health = 1

Fire = 0

Reactivity = 0

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

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### 3 Composition

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

100-97-0	methenamine	3%
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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.**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:**

Dilute with plenty of water.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

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**Product Name: 3% Methenamine Solution**


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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).

**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**

<b>PAC-1:</b>		
100-97-0	methenamine	55 mg/m <sup>3</sup>
<b>PAC-2:</b>		
100-97-0	methenamine	610 mg/m <sup>3</sup>
<b>PAC-3:</b>		
100-97-0	methenamine	3,600 mg/m <sup>3</sup>

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## 7 Handling and Storage

**Handling:****Precautions for safe handling:** No special precautions are necessary if used correctly.**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:** None.**Specific end use(s):** No further relevant information available.

## 8 Exposure Controls/Personal Protection

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

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists that were valid during the creation were used as basis.**Exposure controls:****Personal protective equipment:****General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

**Breathing equipment:** Not required.**Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

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**Product Name: 3% Methenamine Solution**


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**Material of gloves:**

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

**Penetration time of glove material:**

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

**Eye protection:** Goggles recommended during refilling.

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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>	Fish-like
<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>	100 °C (212 °F)

**Flash point:** Not applicable.

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

**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>	Not determined.
<b>Upper:</b>	Not determined.

**Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)

**Density:** Not determined.

**Relative density:** Not determined.

**Vapour density:** Not determined.

**Evaporation rate:** Not determined.

**Solubility in / Miscibility with**

**Water:** Fully miscible.

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

**Dynamic:** Not determined.

**Kinematic:** Not determined.

**Other information:** No further relevant information available.

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## 10 Stability and Reactivity

**Reactivity:** No further relevant information available.

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## In Accordance with ISO/DIS 11014

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**Product Name: 3% Methenamine Solution**


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**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:****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)**

None of the ingredients are listed.

**NTP (National Toxicology Program)**

None of the ingredients are listed.

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

None of the ingredients are listed.

## 12 Ecological Information

**Toxicity:****Aquatic toxicity:** No further relevant information available.**Persistence and degradability:** No further relevant information available.**Behavior in environmental systems:****Bioaccumulative potential:** No further relevant information available.**Mobility in soil:** No further relevant information available.**Additional ecological information:****General notes:**

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

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

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

## 13 Disposal Considerations

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

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## In Accordance with ISO/DIS 11014

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**Product Name: 3% Methenamine Solution**


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**Recommended cleansing agent:** Water, if necessary with cleansing agents.
 

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### 14 Transport Information

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

### 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 are 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 are listed.

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

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

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## In Accordance with ISO/DIS 11014

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**Product Name: 3% Methenamine Solution**


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**Carcinogenic categories****EPA (Environmental Protection Agency)**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

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

GHS07

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

methenamine

**Hazard statements**

May cause an allergic skin reaction.

**Precautionary statements**

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

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

Wear protective gloves.

If on skin: Wash with plenty of water.

Specific treatment (see on this label).

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

Wash contaminated clothing before reuse.

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

**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. 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** 02/23/2018 / -**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



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## In Accordance with ISO/DIS 11014

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**Product Name: 3% Methenamine Solution**

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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)  
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 Sens. 1: Skin sensitisation – Category 1

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— US —



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

Review Date 02/23/2018

Revision Date 02/08/2018

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

**Product Name:** 0.2M Boric Acid

**SDS Code:** SSKC624

**Product Description:** Kit Component

**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

Repr. 1 H360 May damage fertility or the unborn child.

**Label elements**

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

**Hazard pictograms**



GHS08

**Signal word** Danger

**Hazard statements**

May damage fertility or the unborn child.

**Precautionary statements**

Obtain special instructions before use.

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

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

IF exposed or concerned: 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)**

Health = 2

Fire = 0

Reactivity = 0

# SAFETY DATA SHEET

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**Product Name: 0.2M Boric Acid**


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**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:**

10043-35-3	boric acid	<2.5%
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### 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.**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.

### 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.

### 6 Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:** Not required.**Environmental precautions:** Dilute with plenty of 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.

**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.

# SAFETY DATA SHEET

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**Product Name: 0.2M Boric Acid**


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**Protective Action Criteria for Chemicals**

PAC-1:		
10043-35-3	boric acid	6 mg/m <sup>3</sup>
PAC-2:		
10043-35-3	boric acid	23 mg/m <sup>3</sup>
PAC-3:		
10043-35-3	boric acid	830 mg/m <sup>3</sup>

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## 7 Handling and Storage

**Handling:**
**Precautions for safe handling:** No special precautions are necessary if used correctly.

**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:** None.

**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:	
<b>10043-35-3 boric acid</b>	
TLV	Short-term value: 6* mg/m <sup>3</sup> Long-term value: 2* mg/m <sup>3</sup> *as inhalable fraction

**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.

Wash hands before breaks and at the end of work.

**Breathing equipment:** Not required.

**Protection of hands:**

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.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

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**Product Name: 0.2M Boric Acid**


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**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:** Goggles recommended during refilling.

## 9 Physical and Chemical Properties

<b>Information on basic physical and chemical properties</b>	
<b>General Information</b>	
<b>Appearance</b>	
<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not determined.
<b>pH-value:</b>	Not determined.
<b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)
<b>Flash point:</b>	Not applicable.
<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Decomposition temperature:</b>	Not determined.
<b>Auto igniting:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure at 20 °C (68 °F):</b>	23 hPa (17.3 mm Hg)
<b>Density:</b>	Not determined.
<b>Relative density:</b>	Not determined.
<b>Vapour density:</b>	Not determined.
<b>Evaporation rate:</b>	Not determined.
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Fully miscible.
<b>Partition coefficient (n-octanol/water):</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<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.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

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**Product Name: 0.2M Boric Acid**


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**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicology Information

**Information on toxicological effects**
**Acute toxicity:**
**Primary irritant effect:**
**On the skin:** No irritant effect.

**On the eye:** No irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

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

**Carcinogenic categories**

<b>IARC (International Agency for Research on Cancer)</b>
None of the ingredients are listed.

<b>NTP (National Toxicology Program)</b>
None of the ingredients are listed.

<b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
None of the ingredients are 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:** Generally not hazardous for water

**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.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

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Product Name: 0.2M Boric Acid

### 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> Marine pollutant:	No
<b>Special precautions for user:</b>	Not applicable.
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable.
<b>UN "Model Regulation":</b>	Not applicable

### 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 are 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 are listed.

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

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**Carcinogenic categories**

**EPA (Environmental Protection Agency)**

10043-35-3 | boric acid

I (oral)

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: 0.2M Boric Acid**


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<b>TLV (Threshold Limit Value established by ACGIH)</b>	
10043-35-3   boric acid	A4
<b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>	
None of the ingredients are listed.	

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

### Hazard pictograms



GHS08

**Signal word** Danger

### Hazard statements

May damage fertility or the unborn child.

### Precautionary statements

Obtain special instructions before use.

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

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

IF exposed or concerned: Get medical advice/attention.

Store locked up.

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

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

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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. 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** 02/23/2018 / -

### 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)

HMIS: Hazardous Materials Identification System (USA)

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



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

Review Date 02/23/2018

Revision Date 02/08/2018

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**Product Name: 0.2M Boric Acid**

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PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Repr. 1: Reproductive toxicity – Category 1

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— US —



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

Review Date 02/23/2018

Revision Date 02/08/2018

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

**Product Name:** 0.25M Sodium Borate

**SDS Code:** SSKC625

**Product Description:** Kit Component

**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

Repr. 1 H360 May damage fertility or the unborn child.

**Label elements**

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

**Hazard pictograms**



GHS08

**Signal word** Danger

**Hazard-determining components of labeling:**

Disodium tetraborate, decahydrate

**Hazard statements**

May damage fertility or the unborn child.

**Precautionary statements**

Obtain special instructions before use.

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

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

IF exposed or concerned: Get medical advice/attention.

Store locked up.

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

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 02/08/2018

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**Product Name: 0.25M Sodium Borate**


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

Health = 1

Fire = 0

Reactivity = 0

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

Health = 1

Fire = 0

Reactivity = 0

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

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### 3 Composition

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

1303-96-4	Disodium tetraborate, decahydrate	<10%
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### 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.**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:**

Dilute with plenty of water.

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

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 02/08/2018

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**Product Name: 0.25M Sodium Borate**


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**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.

**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**

<b>PAC-1:</b>		
1303-96-4	Disodium tetraborate, decahydrate	6 mg/m <sup>3</sup>
<b>PAC-2:</b>		
1303-96-4	Disodium tetraborate, decahydrate	190 mg/m <sup>3</sup>
<b>PAC-3:</b>		
1303-96-4	Disodium tetraborate, decahydrate	1,100 mg/m <sup>3</sup>

## 7 Handling and Storage

**Handling:****Precautions for safe handling:** No special precautions are necessary if used correctly.**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:** None.**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:****1303-96-4 Disodium tetraborate, decahydrate**REL Long-term value: 5 mg/m<sup>3</sup>TLV Short-term value: 6\* mg/m<sup>3</sup>Long-term value: 2\* mg/m<sup>3</sup>

\*as inhalable fraction

**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.

Wash hands before breaks and at the end of work.

**Breathing equipment:** Not required.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

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**Product Name: 0.25M Sodium Borate**


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**Protection of hands:**

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:** Goggles recommended during refilling.

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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>	Odorless
<b>Odor threshold:</b>	Not determined.

<b>pH-value:</b>	Not determined.
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**Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)

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

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

<b>Vapor pressure at 20 °C (68 °F):</b>	23 hPa (17.3 mm Hg)
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<b>Density:</b>	Not determined.
<b>Relative density:</b>	Not determined.
<b>Vapour density:</b>	Not determined.
<b>Evaporation rate:</b>	Not determined.

**Solubility in / Miscibility with**

<b>Water:</b>	Fully miscible.
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<b>Partition coefficient (n-octanol/water):</b>	Not determined.
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<b>Dynamic:</b>	Not determined.
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<b>Kinematic:</b>	Not determined.
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## In Accordance with ISO/DIS 11014

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**Product Name: 0.25M Sodium Borate**


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<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.

### 11 Toxicology Information

**Information on toxicological effects****Acute toxicity:****Primary irritant effect:****On the skin:** No irritant effect.**On the eye:** No irritating effect.**Sensitization:** No sensitizing effects known.**Additional toxicological information:**

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

**Carcinogenic categories****IARC (International Agency for Research on Cancer)**

None of the ingredients are listed.

**NTP (National Toxicology Program)**

None of the ingredients are listed.

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

None of the ingredients are listed.

### 12 Ecological Information

**Toxicity:****Aquatic toxicity:** No further relevant information available.**Persistence and degradability:** No further relevant information available.**Behavior in environmental systems:****Bioaccumulative potential:** No further relevant information available.**Mobility in soil:** No further relevant information available.**Additional ecological information:****General notes:**

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

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

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

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: 0.25M Sodium Borate**


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**Other adverse effects:** No further relevant information available.
 

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

### 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 are 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 are listed.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: 0.25M Sodium Borate**


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

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**Carcinogenic categories**
**EPA (Environmental Protection Agency)**

1303-96-4 Disodium tetraborate, decahydrate

I (oral)

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

1303-96-4 Disodium tetraborate, decahydrate

A4

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

None of the ingredients are listed.

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

**Hazard pictograms**


GHS08

**Signal word** Danger

**Hazard-determining components of labeling:**

Disodium tetraborate, decahydrate

**Hazard statements**

May damage fertility or the unborn child.

**Precautionary statements**

Obtain special instructions before use.

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

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

IF exposed or concerned: Get medical advice/attention.

Store locked up.

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

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

## 16 Other Information

This information 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** 02/23/2018 / -



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## In Accordance with ISO/DIS 11014

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**Product Name: 0.25M Sodium Borate**

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**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)  
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  
Repr. 1: Reproductive toxicity – Category 1

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## SAFETY DATA SHEET

In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 01/19/2018

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

**Product Name:** 0.2% Gold Chloride

**SDS Code:** SSAHGCH0.2

**Product Description:** Laboratory Reagent

**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**

The product is not classified according to the Globally Harmonized System (GHS).

**Label elements**

**GHS label elements** Not applicable

**Hazard pictograms** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

**Classification system:**

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

Health = 1

Fire = 0

Reactivity = 0

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

Health = 1

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:** Not applicable

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 01/19/2018

---

**Product Name: 0.2% Gold Chloride**


---

### 4 First Aid Measures

**Description of first aid measures**
**General information:** No special measures required.

**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.

**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.
 

---

### 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.
 

---

### 6 Accidental Release Measures

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

**Environmental precautions:** Dilute with plenty of water.

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

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

**Reference to other sections**

No dangerous substances are released.

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:**

None of the ingredients are listed.

**PAC-2:**

None of the ingredients are listed.

**PAC-3:**

 None of the ingredients are listed.
 

---

### 7 Handling and Storage

**Handling:**
**Precautions for safe handling:** No special measures required.

**Information about protection against explosions and fires:** No special measures required.
 

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# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 01/19/2018

---

**Product Name: 0.2% Gold Chloride**


---

**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:** None.

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

---

## 8 Exposure Controls/Personal Protection

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

**Control parameters**
**Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists that were valid during the creation were used as basis.

**Exposure controls:**
**Personal protective equipment:**
**General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

**Breathing equipment:** Not required.

**Protection of hands:**

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:** Goggles recommended during refilling.

---

## 9 Physical and Chemical Properties

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

<b>Form:</b>	Liquid
<b>Color:</b>	Gold colored
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not determined.

<b>pH-value:</b>	Not determined.
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**Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 01/19/2018

---

**Product Name: 0.2% Gold Chloride**


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<b>Flash point:</b>	Not applicable.
<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Decomposition temperature:</b>	Not determined.
<b>Auto igniting:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure at 20 °C (68 °F):</b>	23 hPa (17.3 mm Hg)
<b>Density:</b>	Not determined.
<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.

---

## 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:**

**Primary irritant effect:**

**On the skin:** No irritant effect.

**On the eye:** No irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

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# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 01/19/2018

---

**Product Name: 0.2% Gold Chloride**


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**Carcinogenic categories**

<b>IARC (International Agency for Research on Cancer)</b>
None of the ingredients are listed.
<b>NTP (National Toxicology Program)</b>
None of the ingredients are listed.
<b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
None of the ingredients are 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:** Generally not hazardous for water

**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:**

Smaller quantities can be disposed of with household waste.

Disposal must be according to official regulations.

**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

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 01/19/2018

---

**Product Name: 0.2% Gold Chloride**


---

<b>Environmental hazards</b>	
<b>Marine pollutant:</b>	No
<b>Special precautions for user:</b>	Not applicable.
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable.
<b>UN "Model Regulation":</b>	Not applicable

---

### 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 are listed.

**Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

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

7732-18-5 | water, distilled, conductivity or of similar purity

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

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

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**Carcinogenic categories**

**EPA (Environmental Protection Agency)**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

**GHS label elements** Not applicable

**Hazard pictograms** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

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

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 01/19/2018

---

**Product Name: 0.2% Gold Chloride**

---

### 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** 02/23/2018 / -**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)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety &amp; Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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

Review Date 02/23/2018

Revision Date 02/08/2018

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

**Product Name:** 3% Sodium Thiosulfate

**SDS Code:** SSKC627

**Product Description:** Kit Component

**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**

The product is not classified according to the Globally Harmonized System (GHS).

**Label elements**

**GHS label elements** Not applicable

**Hazard pictograms** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

**Classification system:**

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

Health = 1

Fire = 0

Reactivity = 0

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

Health = 1

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:** Not applicable

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 02/08/2018

---

**Product Name: 3% Sodium Thiosulfate**


---

### 4 First Aid Measures

**Description of first aid measures**
**General information:** No special measures required.

**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.

**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.
 

---

### 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.
 

---

### 6 Accidental Release Measures

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

**Environmental precautions:** Dilute with plenty of water.

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

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

**Reference to other sections**

No dangerous substances are released.

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:**

7772-98-7	sodium thiosulfate	38 mg/m <sup>3</sup>
89-83-8	thymol	2.9 mg/m <sup>3</sup>

**PAC-2:**

7772-98-7	sodium thiosulfate	410 mg/m <sup>3</sup>
89-83-8	thymol	32 mg/m <sup>3</sup>

**PAC-3:**

7772-98-7	sodium thiosulfate	2,500 mg/m <sup>3</sup>
89-83-8	thymol	190 mg/m <sup>3</sup>

---

### 7 Handling and Storage

**Handling:**
**Precautions for safe handling:** No special measures required.
 

---

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 02/08/2018

---

**Product Name: 3% Sodium Thiosulfate**


---

**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:** None.

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

---

## 8 Exposure Controls/Personal Protection

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

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists that were valid during the creation were used as basis.

**Exposure controls:**

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

**Breathing equipment:** Not required.

**Protection of hands:**

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:** Goggles recommended during refilling.

---

## 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>	Characteristic
<b>Odor threshold:</b>	Not determined.

<b>pH-value:</b>	Not determined.
------------------	-----------------

**Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 02/08/2018

---

**Product Name: 3% Sodium Thiosulfate**


---

<b>Flash point:</b>	Not applicable.
<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Decomposition temperature:</b>	Not determined.
<b>Auto igniting:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure at 20 °C (68 °F):</b>	23 hPa (17.3 mm Hg)
<b>Density:</b>	Not determined.
<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.

---

## 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:**

**Primary irritant effect:**

**On the skin:** No irritant effect.

**On the eye:** No irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

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# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 02/08/2018

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**Product Name: 3% Sodium Thiosulfate**


---

**Carcinogenic categories**

<b>IARC (International Agency for Research on Cancer)</b>
None of the ingredients are listed.
<b>NTP (National Toxicology Program)</b>
None of the ingredients are listed.
<b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
None of the ingredients are 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:** Generally not hazardous for water

**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:**

Smaller quantities can be disposed of with household waste.

Disposal must be according to official regulations.

**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

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# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 02/08/2018

---

**Product Name: 3% Sodium Thiosulfate**


---

<b>Environmental hazards</b>	
<b>Marine pollutant:</b>	No
<b>Special precautions for user:</b>	Not applicable.
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable.
<b>UN "Model Regulation":</b>	Not applicable

---

### 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 are 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 are listed.

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

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**Carcinogenic categories**
**EPA (Environmental Protection Agency)**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

**GHS label elements** Not applicable

**Hazard pictograms** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

**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

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 02/08/2018

---

**Product Name: 3% Sodium Thiosulfate**

---

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** 02/23/2018 / -**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)

HMIS: Hazardous Materials Identification System (USA)

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

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

Review Date 02/23/2018

Revision Date 01/31/2018

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

**Product Name:** Nuclear Fast Red Stain

**SDS Code:** SSSTNFR

**Product Description:** Histology Stain

**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

Carc. 1A H350 May cause cancer.

**Label elements**

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

**Hazard pictograms**



GHS08

**Signal word** Danger

**Hazard-determining components of labeling:**

ethanol

**Hazard statements**

May cause cancer.

**Precautionary statements**

Obtain special instructions before use.

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

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

IF exposed or concerned: Get medical advice/attention.

Store locked up.

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



# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

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**Product Name: Nuclear Fast Red Stain**


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

Health = 1

Fire = 1

Reactivity = 0

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

Health = 1

Fire = 1

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	2.5-10%
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### 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.**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.

---

### 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:**

Dilute with plenty of water.

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

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: Nuclear Fast Red Stain**


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**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**

<b>PAC-1:</b>		
64-17-5	ethanol	1,800 ppm
89-83-8	thymol	2.9 mg/m <sup>3</sup>
<b>PAC-2:</b>		
64-17-5	ethanol	3300* ppm
89-83-8	thymol	32 mg/m <sup>3</sup>
<b>PAC-3:</b>		
64-17-5	ethanol	15000* ppm
89-83-8	thymol	190 mg/m <sup>3</sup>

## 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:** None.**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**

<b>Components with limit values that require monitoring at the workplace:</b>	
<b>64-17-5 ethanol</b>	
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.

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## In Accordance with ISO/DIS 11014

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**Product Name: Nuclear Fast Red Stain**


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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

**Material of gloves:**

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

**Penetration time of glove material:**

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

**Eye protection:** Tightly sealed goggles

---

## 9 Physical and Chemical Properties

### Information on basic physical and chemical properties

#### General Information

#### Appearance

<b>Form:</b>	Liquid
<b>Color:</b>	Red
<b>Odor:</b>	Weak, characteristic
<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>	100 °C (212 °F)

**Flash point:** Not applicable.

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

**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>	Not determined.
<b>Upper:</b>	Not determined.

**Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)

**Density:** Not determined.

**Relative density:** Not determined.

**Vapour density:** Not determined.

**Evaporation rate:** Not determined.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: Nuclear Fast Red Stain**


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<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.

---

### 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:**

**Primary irritant effect:**

**On the skin:** No irritant effect.

**On the eye:** No irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

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

**Carcinogenic categories**

<b>IARC (International Agency for Research on Cancer)</b>	
64-17-5   ethanol	1
<b>NTP (National Toxicology Program)</b>	
None of the ingredients are listed.	
<b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>	
None of the ingredients are listed.	

---

### 12 Ecological Information

**Toxicity:**

**Aquatic toxicity:** No further relevant information available.

**Persistence and degradability:** No further relevant information available.

**Behavior in environmental systems:**

**Bioaccumulative potential:** No further relevant information available.

**Mobility in soil:** No further relevant information available.

**Additional ecological information:**

**General notes:**

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

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# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: Nuclear Fast Red Stain**


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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

<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>	Not applicable.
<b>Special precautions for user:</b>	Not applicable.
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable.
<b>UN "Model Regulation":</b>	Not applicable

### 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 are listed.

**Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

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

64-17-5 ethanol

89-83-8 thymol

7732-18-5 water, distilled, conductivity or of similar purity

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: Nuclear Fast Red Stain**


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

**Carcinogenic categories**
**EPA (Environmental Protection Agency)**

None of the ingredients are listed.

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

64-17-5 | ethanol

A3

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

None of the ingredients are listed.

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

**Hazard pictograms**


GHS08

**Signal word** Danger

**Hazard-determining components of labeling:**

ethanol

**Hazard statements**

May cause cancer.

**Precautionary statements**

Obtain special instructions before use.

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

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

IF exposed or concerned: Get medical advice/attention.

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.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: Nuclear Fast Red Stain**


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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. 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** 02/23/2018 / -

**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)

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

Carc. 1A: Carcinogenicity – Category 1A

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# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 01/22/2018

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

**Product Name:** 5% Silver Nitrate

**SDS Code:** SSAHS04

**Product Description:** Laboratory Reagent

**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**



GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2B H320 Causes eye irritation.  
Aquatic Acute 2 H401 Toxic to aquatic life.

**Label elements**

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

**Hazard pictograms**



GHS07



GHS09

**Signal word** Warning

**Hazard statements**

Harmful if swallowed.  
Causes skin and eye irritation.  
Toxic to aquatic life.  
Toxic to aquatic life with long lasting effects.



# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

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**Product Name: 5% Silver Nitrate**


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**Precautionary statements**

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Avoid release to the environment.

Wear protective gloves.

If swallowed: Call a poison center/doctor if you feel unwell.

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.

Specific treatment (see on this label).

Rinse mouth.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Collect spillage.

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

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

Health = 1

Fire = 0

Reactivity = 0

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

Health = 1

Fire = 0

Reactivity = 0

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

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### 3 Composition

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

7761-88-8	silver nitrate	≥2.5-≤5%
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### 4 First Aid Measures

**Description of first aid measures****General information:**

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

**After inhalation:** 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:** Immediately call a 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

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**Product Name: 5% Silver Nitrate**


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

---

### 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.

### 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).

**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:**

7761-88-8	silver nitrate	0.047 mg/m <sup>3</sup>
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**PAC-2:**

7761-88-8	silver nitrate	0.9 mg/m <sup>3</sup>
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**PAC-3:**

7761-88-8	silver nitrate	5.4 mg/m <sup>3</sup>
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### 7 Handling and Storage

**Handling:****Precautions for safe handling:** No special precautions are necessary if used correctly.**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.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

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**Product Name: 5% Silver Nitrate**


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### 8 Exposure Controls/Personal Protection

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

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists that were valid during the creation were used as basis.

**Exposure controls:**

**Personal protective equipment:**

**General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes and skin.

**Breathing equipment:** Not required.

**Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves:**

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

**Penetration time of glove material:**

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

**Eye protection:** Tightly sealed goggles

### 9 Physical and Chemical Properties

**Information on basic physical and chemical properties**

**General Information**

**Appearance**

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

<b>pH-value:</b>	Not determined.
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**Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)

<b>Flash point:</b>	Not applicable.
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<b>Flammability (solid, gaseous):</b>	Not applicable.
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<b>Decomposition temperature:</b>	Not determined.
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# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

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**Product Name: 5% Silver Nitrate**


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<b>Auto igniting:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure at 20 °C (68 °F):</b>	23 hPa (17.3 mm Hg)
<b>Density:</b>	Not determined.
<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.

---

## 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:**

**7761-88-8 silver nitrate**

Oral	LD50	50 mg/kg (mouse)
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**Primary irritant effect:**

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

**On the eye:** Irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

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

Harmful

Irritant

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# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: 5% Silver Nitrate**


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**Carcinogenic categories**

<b>IARC (International Agency for Research on Cancer)</b>
None of the ingredients are listed.
<b>NTP (National Toxicology Program)</b>
None of the ingredients are listed.
<b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
None of the ingredients are 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.

**Ecotoxicological effects:**
**Remark:** Toxic for 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.

Also poisonous for fish and plankton in water bodies.

Toxic for 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>	
<b>DOT</b>	Not applicable
<b>ADR, IMDG, IATA</b>	UN3082
<b>UN proper shipping name</b>	
<b>DOT</b>	Not applicable
<b>ADR</b>	3082 Environmentally hazardous substances, liquid, n.o.s. (Silver nitrate)

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014


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**Product Name: 5% Silver Nitrate**


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<b>IMDG</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SILVER NITRATE), MARINE POLLUTANT
<b>IATA</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SILVER NITRATE)
<b>Transport hazard class(es)</b>	
<b>DOT Class</b>	Not applicable
<b>ADR, IMDG, IATA</b>	
	
<b>Class Label</b>	9 Miscellaneous dangerous substances and articles 9
<b>Packing group</b>	
<b>DOT ADR, IMDG, IATA</b>	Not applicable III
<b>Environmental hazards</b>	Product contains environmentally hazardous substances: silver nitrate
<b>Marine pollutant:</b>	Symbol (fish and tree)
<b>Special marking (ADR):</b>	Symbol (fish and tree)
<b>Special marking (IATA):</b>	Symbol (fish and tree)
<b>Special precautions for user:</b>	Warning: Miscellaneous dangerous substances and articles
<b>Danger code (Kemler):</b>	90
<b>EMS Number:</b>	F-A,S-F
<b>Segregation groups</b>	Heavy metals and their salts (including their organometallic compounds)
<b>Stowage Category</b>	A
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable.
<b>Transport/Additional information:</b>	
<b>ADR Exempted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<b>IMDG Limited quantities (LQ) Exempted quantities (EQ)</b>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<b>UN "Model Regulation":</b>	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (SILVER NITRATE), 9, III

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: 5% Silver Nitrate**


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### 15 Regulatory Information

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

<b>Section 355 (extremely hazardous substances):</b>
--

None of the ingredients are listed.
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<b>Section 313 (Specific toxic chemical listings):</b>
--

7761-88-8   silver nitrate
----------------------------

<b>TSCA (Toxic Substances Control Act):</b>
---

All ingredients are listed.
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<b>Proposition 65</b>
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<b>Chemicals known to cause cancer:</b>
---

None of the ingredients is listed.
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<b>Chemicals known to cause reproductive toxicity for females:</b>
--

None of the ingredients are listed.
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<b>Chemicals known to cause reproductive toxicity for males:</b>
--

None of the ingredients are listed.
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<b>Chemicals known to cause developmental toxicity:</b>
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None of the ingredients are listed.
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<b>Carcinogenic categories</b>
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<b>EPA (Environmental Protection Agency)</b>
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None of the ingredients are listed.
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<b>TLV (Threshold Limit Value established by ACGIH)</b>
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None of the ingredients are listed.
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<b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
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None of the ingredients are listed.
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**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**



GHS07    GHS09

**Signal word** Warning

**Hazard statements**

Harmful if swallowed.

Causes skin and eye irritation.

Toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

**Precautionary statements**

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Avoid release to the environment.

Wear protective gloves.

If swallowed: Call a poison center/doctor if you feel unwell.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/23/2018

Revision Date 01/22/2018

**Product Name: 5% Silver Nitrate**

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.

Specific treatment (see on this label).

Rinse mouth.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Collect spillage.

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

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

## 16 Other Information

This information 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** 02/23/2018 / -

### 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)

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

Acute Tox. 4: Acute toxicity – Category 4

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

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

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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