07/23/2018	Kit Components	
Product code	Description	
SSKTGRI	Gridley's Stain Kit	
Components:		
SSAHP09	1% Periodic Acid	
SSSTSCH	Optimized Schiff's Solution	
SSKC583	Sulfurous Rinse	
SSSTAFU	Aldehyde Fuchsin Stain	
SSSTMYE	Metanil Yellow Solution	

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SAFETY DATA SHEET In Accordance with ISO/DIS 11014

Review Date 07/23/2018

Revision Date 02/14/2018

1 Identification of the Substance/Mixture and Company

Product Name: 1% Periodic Acid

SDS Code: SSAHP09

Product Description: Stain 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.Skin Irrit. 2 H315 Causes skin irritation.Eye Irrit. 2A H319 Causes serious eye irritation.

Label elements

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



Signal word Warning

Hazard-determining components of labeling: orthoperiodic acid
Hazard statements
Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
Precautionary statements
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves / eye protection / face protection.
If swallowed: Call a poison center/doctor if you feel unwell.

Review Date 07/23/2018

Product Name: 1% Periodic Acid

Revision Date 02/14/2018

Rinse mouth. If on skin: Wash with plenty of water. Specific treatment (see on this label). If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If eye irritation persists: Get medical advice/attention. Dispose of contents/container in accordance with local/regional/national/international regulations. **Classification system:** NFPA ratings (scale 0 - 4) Health = 2Fire = 0Reactivity = 0HMIS-ratings (scale 0 - 4) Health = *2= 0Fire Reactivity = 0Other 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:

10450-60-9 orthoperiodic acid

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.

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.

≥1-≤2.5%

Review Date 07/23/2018

Product Name: 1% Periodic Acid

Special hazards arising from the substance or mixture: No further relevant information available. Advice for firefighters

Protective equipment: No special measures required.

6 Accidental Release Measures

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

Environmental precautions:

Dilute with plenty of water.

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

Methods and material for containment and cleaning up:

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

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:	
10450-60-9 orthoperiodic acid	0.18 mg/m ³
PAC-2:	
10450-60-9 orthoperiodic acid	2.1 mg/m ³
PAC-3:	
10450-60-9 orthoperiodic acid	12 mg/m ³

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.

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.

Review Date 07/23/2018

Exposure controls:

Product Name: 1% Periodic Acid

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 Pro	perties
Information on basic physical and c	hemical properties
General Information	
Appearance	
Form:	Liquid
Color:	Colorless
Odor:	Odorless
Odor threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C (212 °F)
Flash point:	Not applicable.
Flammability (solid, gaseous):	Not applicable.
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
Density:	Not determined.

Review Date 07/23/2018

Product Name: 1% Periodic Acid

Relative density:	Not determined.
Vapour density:	Not determined.
Evaporation rate:	Not determined.
Solubility in / Miscibility wit	1
Water:	Fully miscible.
Partition coefficient (n-octar	ol/water): Not determined.
Dynamic:	Not determined.
Kinematic:	Not determined.
Other information:	No further relevant information available.

10 Stability and Reactivity

Reactivity: No further relevant information available.

Chemical stability:

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

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: Irritant to skin and mucous membranes.

On the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

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

Irritant

Carcinogenic categories

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.

Review Date 07/23/2018

Product Name: 1% Periodic Acid

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.

14 Transport Information

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable.
Not applicable.
f Not applicable.
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.

Review Date 07/23/2018

Product Name: 1% Periodic Acid

TSCA (Toxic	Substances	Control	Act):
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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 The product is classified and labeled according to the Globally Harmonized System (GHS). **Hazard pictograms**



Signal word Warning

Hazard-determining components of labeling: orthoperiodic acid Hazard statements Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. **Precautionary statements** Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves / eye protection / face protection. If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. If on skin: Wash with plenty of water. Specific treatment (see on this label). If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If eye irritation persists: Get medical advice/attention.

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

Review Date 07/23/2018

Product Name: 1% Periodic Acid

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 07/23/2018 / -

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 Acute Tox. 4: Acute toxicity - Category 4 Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A

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SAFETY DATA SHEET In Accordance with ISO/DIS 11014

Review Date 07/23/2018

Revision Date 01/31/2018

1 Identification of the Substance/Mixture and Company

Product Name: Optimized Schiff's Solution

SDS Code: SSSTSCH

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. 2 H351 Suspected of causing cancer.

Label elements

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



Signal word Warning Hazard statements Suspected of causing 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. Classification system: NFPA ratings (scale 0 - 4) Health = 3 Fire = 0 Reactivity = 0

Review Date 07/23/2018

Revision Date 01/31/2018

Product Name: Optimized Schiff's Solution

HMIS-ratings (scale 0 - 4) Health = 3 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:	
7647-01-0 hydrogen chloride	≥0.1-≤2.5%
632-99-5 (4-(4-aminophenyl)(4-iminocyclohexa-2,5-dienylidene)methyl)-2-methylanilinehydrochloride	≥0.1-≤2.5%

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.

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

Methods and material for containment and cleaning up:

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

Dispose contaminated material as waste according to item 13.

Reference to other sections

See Section 7 for information on safe handling.

Review Date 07/23/2018

Product Name: Optimized Schiff's Solution

See Section 8 for information on personal protection equipment. See Section 13 for disposal information. Protective Action Criteria for Chemicals	
PAC-1:	
7647-01-0 hydrogen chloride	1.8 ppm
7757-83-7 sodium sulphite	11 mg/m ³
PAC-2:	
7647-01-0 hydrogen chloride	22 ppm
7757-83-7 sodium sulphite	120 mg/m ³
PAC-3:	
7647-01-0 hydrogen chloride	100 ppm
7757-83-7 sodium sulphite	710 mg/m ³

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 following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

7647-01-0 hydrogen chloride

PEL Ceiling limit value: 7 mg/m³, 5 ppm

REL Ceiling limit value: 7 mg/m³, 5 ppm

TLV Ceiling limit value: 2.98 mg/m³, 2 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.

Wash hands before breaks and at the end of work.

Breathing equipment: Not required.

Review Date 07/23/2018

Product Name: Optimized Schiff's Solution

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		
Form:	Liquid	
Color:	Colorless	
Odor:	Pungent	
Odor threshold:	Not determined.	
pH-value:	Not determined.	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	100 °C (212 °F)	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Decomposition temperature:	Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 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)		
Dynamic:	Not determined.	
Kinematic:	Not determined.	

Review Date 07/23/2018

Product Name: Optimized Schiff's Solution

Other information:

No further relevant information available.

10 Stability and Reactivity

Reactivity: No further relevant information available.

Chemical stability:

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

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 met

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

Carcinogenic categories

IARC (International Agency for Research on Cancer)		
7647-01-0 hydrogen chloride	3	
632-99-5 (4-(4-aminophenyl)(4-iminocyclohexa-2,5-dienylidene)methyl)-2-methylanilinehydrochloride	2B	
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 2 (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground. Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.

Review Date 07/23/2018

Product Name: Optimized Schiff's Solution

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.

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

15 Regulatory Information

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

Section 355 (extremely hazardous substances):

7647-01-0 hydrogen chloride

Section 313 (Specific toxic chemical listings):

7647-01-0 hydrogen chloride

TSCA (Toxic Substances Control Act):

All ingredients are listed.

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

632-99-5 (4-(4-aminophenyl)(4-iminocyclohexa-2,5-dienylidene)methyl)-2-methylanilinehydrochloride

Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

A4

SAFETY DATA SHEET In Accordance with ISO/DIS 11014

Review Date 07/23/2018

Revision Date 01/31/2018

Product Name: Optimized Schiff's Solution

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)

7647-01-0 hydrogen chloride

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**



Signal word Warning Hazard statements Suspected of causing 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. 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** 07/23/2018 / -

Review Date 07/23/2018

Product Name: Optimized Schiff's Solution

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 Carc. 2: Carcinogenicity - Category 2 Copyright © 2018-2019 American MasterTech Scientific. All rights reserved.

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SAFETY DATA SHEET In Accordance with ISO/DIS 11014

Review Date 07/23/2018

Revision Date 02/08/2018

1 Identification of the Substance/Mixture and Company

Product Name: Sulfurous Rinse

SDS Code: SSKC583

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 = 2Fire = 0Reactivity = 0HMIS-ratings (scale 0 - 4) Health = 2Fire = 0Reactivity = 0Other 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

Review Date 07/23/2018

Product Name: Sulfurous Rinse

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: 7681-57-4 sodium metabisulphite 15 mg/m³ 7647-01-0 hydrogen chloride 1.8 ppm PAC-2: 7681-57-4 sodium metabisulphite 64 mg/m³ 7647-01-0 hydrogen chloride 22 ppm PAC-3: 7681-57-4 sodium metabisulphite 390 mg/m³ 7681-57-4 sodium metabisulphite 100 ppm

7 Handling and Storage

Handling:

Precautions for safe handling: No special measures required.

Review Date 07/23/2018

Product Name: Sulfurous Rinse

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	
Form:	Liquid
Color:	Colorless
Odor:	Sulphurous
Odor threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C (212 °F)

Revision Date 02/08/2018

Product Name: Sulfurous Rinse

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:		
Lower:	Not determined.	
Upper:	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.	

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.

3

SAFETY DATA SHEET In Accordance with ISO/DIS 11014

Review Date 07/23/2018

Product Name: Sulfurous Rinse

Carcinogenic categories

IARC (International Agency for Research on Cancer)

7647-01-0 hydrogen chloride

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: 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.

UN-Number	
DOT, ADR, ADN, IMDG, IATA	Not applicable
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Not applicable
Transport hazard class(es)	
DOT, ADR, ADN, IMDG, IATA	
Class	Not applicable
Packing group	
DOT, ADR, IMDG, IATA	Not applicable

Review Date 07/23/2018

Product Name: Sulfurous Rinse

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

15 Regulatory Information

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

Section 355 (extremely hazardous substances):

7647-01-0 hydrogen chloride

Section 313 (Specific toxic chemical listings):

7647-01-0 hydrogen chloride

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)

7681-57-4 sodium metabisulphite

7647-01-0 hydrogen chloride

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. A4

A4

US —

SAFETY DATA SHEET In Accordance with ISO/DIS 11014

Review Date 07/23/2018

Revision Date 02/08/2018

Product Name: Sulfurous Rinse

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 07/23/2018 / -

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 07/23/2018

Revision Date 07/23/2018

1 Identification of the Substance/Mixture and Company

Product Name: Aldehyde Fuchsin Stain

SDS Code: SSSTAFU

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



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



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



Signal word Danger Hazard-determining components of labeling: ethanol acetaldehyde 4,4'-(4-iminocyclohexa-2,5-dienylidenemethylene)dianiline hydrochloride Hazard statements Highly flammable liquid and vapor. May cause cancer.

Review Date 07/23/2018

Revision Date 07/23/2018

Product Name: Aldehyde Fuchsin Stain

Precautionary statements Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed or concerned: Get medical advice/attention. In case of fire: Use for extinction: CO2, powder or water spray. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. **Classification system:** NFPA ratings (scale 0 - 4) Health = 1Fire = 3Reactivity = 0The substance demonstrates unusual reactivity with water. HMIS-ratings (scale 0 - 4) Health = 1Fire = 3Reactivity = 0Other 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	50-100%	
67-63-0	propan-2-ol	≥2.5-<10%	
75-07-0	acetaldehyde	≥0.1-≤2.5%	
7647-01-0	hydrogen chloride	≥0.1-≤2.5%	
569-61-9	4,4'-(4-iminocyclohexa-2,5-dienylidenemethylene)dianiline hydrochloride	≥0.1-≤2.5%	

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.

Review Date 07/23/2018

Product Name: Aldehyde Fuchsin Stain

Revision Date 07/23/2018

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:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture: No further relevant information available. Advice for firefighters

Protective equipment: No special measures required.

6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

Dilute with plenty of water.

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

Methods and material for containment and cleaning up:

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

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Protective Action Criteria for Chemicals

PAC-1:		
64-17-5	ethanol	1,800 ppm
67-63-0	propan-2-ol	400 ppm
75-07-0	acetaldehyde	45 ppm
7647-01-0	hydrogen chloride	1.8 ppm
PAC-2:		
64-17-5	ethanol	3300* ppm
67-63-0	propan-2-ol	2000* ppm
75-07-0	acetaldehyde	270 ppm
7647-01-0	hydrogen chloride	22 ppm
PAC-3:		
64-17-5	ethanol	15000* ppm
67-63-0	propan-2-ol	12000** ppm
75-07-0	acetaldehyde	840 ppm

- US —

Review Date 07/23/2018

100 ppm

Product Name: Aldehyde Fuchsin Stain

7647-01-0 hydrogen chloride

7 Handling and Storage

Handling:

Precautions for safe handling: Ensure good ventilation/exhaustion at the workplace.
Information about protection against explosions and fires:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Conditions for safe storage, including any incompatibilities

Storage: Requirements to be met by storerooms and receptacles: Store in a cool location. Information about storage in one common storage facility: Not required. Further information about storage conditions: Keep receptacle tightly sealed. Store in cool, dry conditions in well sealed receptacles. 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 following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

110 0	At this time, the remaining constituent has no known exposure mints.			
64-1	7-5 ethanol			
PEL	Long-term value: 1900 mg/m ³ , 1000 ppm			
REL	Long-term value: 1900 mg/m ³ , 1000 ppm			
TLV	7 Short-term value: 1880 mg/m ³ , 1000 ppm			
67-6	67-63-0 propan-2-ol			
PEL	Long-term value: 980 mg/m ³ , 400 ppm			
REL	. Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm			
TLV	 Short-term value: 984 mg/m³, 400 ppm Long-term value: 492 mg/m³, 200 ppm BEI 			
75-0	75-07-0 acetaldehyde			
PEL	Long-term value: 360 mg/m ³ , 200 ppm			
REL	L See Pocket Guide Apps. A and C			
TLV	Ceiling limit value: 45 mg/m ³ , 25 ppm			
764'	7-01-0 hydrogen chloride			
PEL	Ceiling limit value: 7 mg/m ³ , 5 ppm			
REL	Ceiling limit value: 7 mg/m ³ , 5 ppm			
TLV	Ceiling limit value: 2.98 mg/m ³ , 2 ppm			

Review Date 07/23/2018

Product Name: Aldehyde Fuchsin Stain

Ingredients with biological limit values:		
67-6	3-0 propan-2-ol	
BEI	40 mg/L	
	Medium: urine	
	Time: end of shift at end of workweek	
	Parameter: Acetone (background, nonspecific)	

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.

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

Information on basic physical and chemical properties			
General Information			
Appearance			
Form:	Liquid		
Color:	Violet		
Odor:	Characteristic		
Odor threshold:	Not determined.		
pH-value:	Not determined.		
Change in condition			
Melting point/Melting range:	Undetermined.		
Boiling point/Boiling range:	78 °C (172.4 °F)		
Flash point:	13 °C (55.4 °F)		
Flammability (solid, gaseous):	Not applicable.		
Ignition temperature:	425 °C (797 °F)		

Product Name: Aldehyde Fuchsin Stain

Decomposition temperature:	Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.	
Explosion limits:		
Lower:	3.5 Vol %	
Upper:	15 Vol %	
Vapor pressure at 20 °C (68 °F):	59 hPa (44.3 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.	

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:

75-07-0 acetald

Oral	LD50	661 mg/kg (rat)
Inhalative	LC50/4 h	37 mg/l (rat)

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:

Review Date 07/23/2018

Product Name: Aldehyde Fuchsin Stain

Carcinogenic categories

IARC (Int	ernational Agency for Research on Cancer)		
64-17-5	ethanol	1	
67-63-0	propan-2-ol	3	
75-07-0	acetaldehyde	2B	
7647-01-0	hydrogen chloride	3	
569-61-9	4,4'-(4-iminocyclohexa-2,5-dienylidenemethylene)dianiline hydrochloride	2B	
NTP (Nati	onal Toxicology Program)		
75-07-0 a	cetaldehyde	R	
569-61-9 4	,4'-(4-iminocyclohexa-2,5-dienylidenemethylene)dianiline hydrochloride	R	
OSHA-Ca	(Occupational Safety & Health Administration)		
None of the	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 3 (Self-assessment): extremely hazardous for water Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No further relevant information available.

13 Disposal Considerations

Uncleaned packagings:

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

4 Transport Information	
UN-Number DOT, ADR, IMDG, IATA	UN1993
UN proper shipping name DOT ADR	Flammable liquids, n.o.s. (Ethanol, Acetaldehyde) 1993 Flammable liquids, n.o.s. (Ethanol, Acetaldehyde)

Product Name: Aldehyde Fuchsin Stain

IMDG	FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOI
IATA	ACETALDEHYDE) FLAMMABLE LIQUID, N.O.S. (ETHANOL, ACETALDEHYDE)
Transport hazard class(es)	
DOT	
RUMBER LOOD	
Class	3 Flammable liquids
Label	3
ADR, IMDG, IATA	
Class	3 Flammable liquids
Label	3
Packing group DOT, ADR, IMDG, IATA	II
Environmental hazards	Not applicable.
Special precautions for user:	Warning: Flammable liquids
Danger code (Kemler):	33 E E S E
EMS Number: Stowage Category	F-E, <u>S-E</u> B
Transport in bulk according to Annex I	
MARPOL73/78 and the IBC Code:	Not applicable.
Transport/Additional information:	
DOT	
Quantity limitations	On passenger aircraft/rail: 5 L
	On cargo aircraft only: 60 L
ADR	Calar E2
Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
IMDG	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 50 ml
UN "Model Regulation":	UN 1993 FLAMMABLE LIQUIDS, N.O.S. (ETHANO
	ACETALDEHYDE), 3, II

Review Date 07/23/2018

Revision Date 07/23/2018

Product Name: Aldehyde Fuchsin Stain

15 Regulatory Information

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

Section 355 (extremely hazardous substances):

7647-01-0 hydrogen chloride

Section 313 (Specific toxic chemical listings):

67-63-0 propan-2-ol

75-07-0 acetaldehyde

7647-01-0 hydrogen chloride

TSCA (Toxic Substances Control Act):

All ingredients are listed.

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

569-61-9 4,4'-(4-iminocyclohexa-2,5-dienylidenemethylene)dianiline hydrochloride

Proposition 65

Chemicals known to cause cancer:

75-07-0 acetaldehyde

569-61-9 4,4'-(4-iminocyclohexa-2,5-dienylidenemethylene)dianiline hydrochloride

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 (Envi	ironmental Protection Agency)	
75-07-0 ac	etaldehyde	B2
TLV (Thr	eshold Limit Value established by ACGIH)	
64-17-5	ethanol	A3
67-63-0	propan-2-ol	A4
75-07-0	acetaldehyde	A3
7647-01-0	hydrogen chloride	A4
NIOSH-Ca	a (National Institute for Occupational Safety and Health)	

75-07-0 acetaldehyde

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



Signal word Danger

Review Date 07/23/2018

Product Name: Aldehyde Fuchsin Stain

Hazard-determining components of labeling: ethanol acetaldehyde 4,4'-(4-iminocyclohexa-2,5-dienylidenemethylene)dianiline hydrochloride Hazard statements Highly flammable liquid and vapor. May cause cancer. **Precautionary statements** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed or concerned: Get medical advice/attention. In case of fire: Use for extinction: CO2, powder or water spray. Store in a well-ventilated place. Keep cool. 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.

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** 07/23/2018 / -

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

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

IATA: International Air Transport Association

US —

SAFETY DATA SHEET In Accordance with ISO/DIS 11014

Review Date 07/23/2018

Revision Date 07/23/2018

Product Name: Aldehyde Fuchsin Stain

ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit BEI: Biological Exposure Limit Flam. Liq. 2: Flammable liquids - Category 2 Carc. 1A: Carcinogenicity - Category 1A

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SAFETY DATA SHEET In Accordance with ISO/DIS 11014

Review Date 07/23/2018

Revision Date 01/31/2018

1 Identification of the Substance/Mixture and Company

Product Name: Metanil Yellow Solution

SDS Code: SSSTMYE

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**



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.

Review Date 07/23/2018

Revision Date 01/31/2018

Product Name: Metanil Yellow Solution

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	10-25%
587-98-4	87-98-4 sodium 3-(p-anilinophenylazo)benzenesulphonate ≥0.1-	
64-19-7	acetic acid	≥0.1-≤2.5%

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

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.

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Method Absorb v Dispose Ensure a Referen	llow to enter sewers/ surface or ground water. s and material for containment and cleaning up: with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). contaminated material as waste according to item 13. dequate ventilation. ce to other sections	
	ion 7 for information on safe handling.	
	ion 8 for information on personal protection equipment.	
	ion 13 for disposal information.	
	ve Action Criteria for Chemicals	
PAC-1:		
64-17-5	ethanol	1,800 ppm
64-19-7	acetic acid	5 ppm
PAC-2:		
64-17-5	ethanol	3300* ppm
64-19-7	acetic acid	35 ppm
PAC-3:		
64-17-5	ethanol	15000* ppm
64-19-7	acetic acid	250 ppm

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

Components with limit values that require monitoring at the workplace:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

64-17-5 ethanol

PEL |Long-term value: 1900 mg/m³, 1000 ppm

REL Long-term value: 1900 mg/m³, 1000 ppm

TLV Short-term value: 1880 mg/m³, 1000 ppm

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64-19-7 acetic acid
PEL Long-term value: 25 mg/m ³ , 10 ppm
REL Short-term value: 37 mg/m ³ , 15 ppm
Long-term value: 25 mg/m ³ , 10 ppm
TLV Short-term value: 37 mg/m ³ , 15 ppm
Long-term value: 25 mg/m ³ , 10 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.
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 us
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 chemica
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 varie

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

Information on basic physical and	hemical properties	
General Information		
Appearance		
Form:	Liquid	
Color:	Yellow	
Odor:	Alcohol-like	
Odor threshold:	Not determined.	
pH-value:	Not determined.	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	Undetermined.	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Ignition temperature:	425 °C (797 °F)	

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Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	3.5 Vol %
Upper:	15 Vol %
Vapor pressure at 20 °C (68 °F):	59 hPa (44.3 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/wate	r): Not determined.
Dynamic:	Not determined.
Kinematic:	Not determined.
Other information:	No further relevant information available.

10 Stability and Reactivity

Reactivity: No further relevant information available.

Chemical stability:

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

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)

64-17-5 ethanol

NTP (National Toxicology Program)

None of the ingredients are listed.

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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.

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

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UN "Model Regulation":

Not applicable

15 Regulatory Information

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

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.

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

587-98-4 sodium 3-(p-anilinophenylazo)benzenesulphonate

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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

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**



Signal word Danger Hazard-determining components of labeling: ethanol Hazard statements May cause cancer. A3

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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.

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** 07/23/2018 / -

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

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