

02/14/2018

### Kit Components

Product code	Description
<b>SSKTHEP</b>	<b>Hepatitis B Kit</b>

Components:

SSKC115	3% Sulfuric Acid
SSAHO11	2% Oxalic Acid
SSKC114	Orcein Stain
SSKC112	Differentiating Solution
SSKC111	5% Potassium Permanganate



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

Review Date 02/14/2018

Revision Date 02/07/2018

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

**Product Name:** 3% Sulfuric Acid

**SDS Code:** SSKC115

**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

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:**

sulphuric acid

**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.

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**Product Name: 3% Sulfuric Acid**


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

Health = 2

Fire = 0

Reactivity = 0

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

Health = 2

Fire = 0

Reactivity = 0

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

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### 3 Composition

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

7664-93-9	sulphuric acid	3%
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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.

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

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**Product Name: 3% Sulfuric 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).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**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**

<b>PAC-1:</b>		
7664-93-9	sulphuric acid	0.20 mg/m <sup>3</sup>
<b>PAC-2:</b>		
7664-93-9	sulphuric acid	8.7 mg/m <sup>3</sup>
<b>PAC-3:</b>		
7664-93-9	sulphuric acid	160 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>7664-93-9 sulphuric acid</b>	
PEL	Long-term value: 1 mg/m <sup>3</sup>
REL	Long-term value: 1 mg/m <sup>3</sup>
TLV	Long-term value: 0.2* mg/m <sup>3</sup>
	*as thoracic 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.

Store protective clothing separately.

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**Product Name: 3% Sulfuric Acid**


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**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Protection of hands:**

Protective gloves

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

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

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

**Material of gloves:**

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

**Penetration time of glove material:**

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

**Eye protection:** Tightly sealed goggles

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## 9 Physical and Chemical Properties

<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>	Acidic
<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.

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**Product Name: 3% Sulfuric Acid**


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<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Other information:</b>	No further relevant information available.

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## 10 Stability and Reactivity

**Reactivity:** No further relevant information available.**Chemical stability:****Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.**Possibility of hazardous reactions:** No dangerous reactions known.**Conditions to avoid:** No further relevant information available.**Incompatible materials:** No further relevant information available.**Hazardous decomposition products:** No dangerous decomposition products known.

## 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)**

7664-93-9	sulphuric acid	1
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**NTP (National Toxicology Program)**

7664-93-9	sulphuric acid	K
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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.

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**Product Name: 3% Sulfuric Acid**


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**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> Marine pollutant:	No
<b>Special precautions for user:</b> Stowage Category	Not applicable. B
<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):**

7664-93-9 | sulphuric acid

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

7664-93-9 | sulphuric acid

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

All ingredients are listed.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: 3% Sulfuric Acid**


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**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)**

7664-93-9 sulphuric acid

A2

**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:**

sulphuric acid

**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.



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## In Accordance with ISO/DIS 11014

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**Product Name: 3% Sulfuric Acid**

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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** 02/14/2018 / -**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 02/14/2018

Revision Date 01/22/2018

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

**Product Name:** 2% Oxalic Acid

**SDS Code:** SSAHO11

**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.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

Revision Date 01/22/2018

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**Product Name: 2% Oxalic Acid**


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**Dangerous components:**

144-62-7	oxalic acid	≥0.1-≤2.5%
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### 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:**

144-62-7	oxalic acid	2 mg/m <sup>3</sup>
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**PAC-2:**

144-62-7	oxalic acid	20 mg/m <sup>3</sup>
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**PAC-3:**

144-62-7	oxalic acid	500 mg/m <sup>3</sup>
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### 7 Handling and Storage

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

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## In Accordance with ISO/DIS 11014

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**Product Name: 2% Oxalic Acid**


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**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.

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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:**

**144-62-7 oxalic acid**

PEL	Long-term value: 1 mg/m <sup>3</sup>
REL	Short-term value: 2 mg/m <sup>3</sup>
	Long-term value: 1 mg/m <sup>3</sup>
TLV	Short-term value: 2 mg/m <sup>3</sup>
	Long-term value: 1 mg/m <sup>3</sup>
	anhydrous and dihydrate

**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.

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## 9 Physical and Chemical Properties

**Information on basic physical and chemical properties**

**General Information**

**Appearance**

**Form:** Liquid

**Color:** Colorless

**Odor:** Odorless

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# SAFETY DATA SHEET

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**Product Name: 2% Oxalic Acid**


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<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 Water:</b>	Fully miscible.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Other information:</b>	No further relevant information available.

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## 10 Stability and Reactivity

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

**Chemical stability:**

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

**Possibility of hazardous reactions:** No dangerous reactions known.

**Conditions to avoid:** No further relevant information available.

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

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

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## 11 Toxicology Information

**Information on toxicological effects**

**Acute toxicity:**

**Primary irritant effect:**

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

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

**Sensitization:** No sensitizing effects known.

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## In Accordance with ISO/DIS 11014

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**Product Name: 2% Oxalic Acid**


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**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.

**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.

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## 12 Ecological Information

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

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**Product Name: 2% Oxalic Acid**


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<b>Transport hazard class(es)</b>	
<b>DOT, ADR, ADN, IMDG, IATA 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.

**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

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## In Accordance with ISO/DIS 11014

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**Product Name: 2% Oxalic Acid**

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**Hazard statements** Not applicable**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** 02/14/2018 / -**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 02/14/2018

Revision Date 02/07/2018

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

**Product Name:** Orcein Stain

**SDS Code:** SSKC114

**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

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

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**Product Name: Orcein Stain**


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

Health = 1

Fire = 3

Reactivity = 0

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

Health = 1

Fire = 3

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:**

64-17-5	ethanol	<75%
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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

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**Product Name: Orcein 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**

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**

<b>PAC-1:</b>		
64-17-5	ethanol	1,800 ppm
7647-01-0	hydrogen chloride	1.8 ppm
<b>PAC-2:</b>		
64-17-5	ethanol	3300* ppm
7647-01-0	hydrogen chloride	22 ppm
<b>PAC-3:</b>		
64-17-5	ethanol	15000* ppm
7647-01-0	hydrogen chloride	100 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:****64-17-5 ethanol**PEL Long-term value: 1900 mg/m<sup>3</sup>, 1000 ppmREL Long-term value: 1900 mg/m<sup>3</sup>, 1000 ppmTLV 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.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

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**Product Name: Orcein Stain**


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**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

## 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>	Alcohol-like
<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.
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<b>Boiling point/Boiling range:</b>	Undetermined.
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<b>Flash point:</b>	Not applicable.
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<b>Flammability (solid, gaseous):</b>	Not applicable.
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<b>Ignition temperature:</b>	425 °C (797 °F)
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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>	3.5 Vol %
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<b>Upper:</b>	15 Vol %
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# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: Orcein Stain**


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<b>Vapor pressure at 20 °C (68 °F):</b>	59 hPa (44.3 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.

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## 10 Stability and Reactivity

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

**Chemical stability:**

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

**Possibility of hazardous reactions:** No dangerous reactions known.

**Conditions to avoid:** No further relevant information available.

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

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

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## 11 Toxicology Information

**Information on toxicological effects**

**Acute toxicity:**

**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
7647-01-0	hydrogen chloride	3
<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.		

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# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

Revision Date 02/07/2018

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**Product Name: Orcein Stain**


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### 12 Ecological Information

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

<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

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

Revision Date 02/07/2018

Product Name: Orcein 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):**

7647-01-0 | hydrogen chloride

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

All ingredients are listed.

**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
7647-01-0	hydrogen chloride	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:**

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.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: Orcein Stain**


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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.

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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** 02/14/2018 / -

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

Review Date 02/14/2018

Revision Date 02/07/2018

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

**Product Name:** Differentiating Solution

**SDS Code:** SSKC112

**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

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 02/14/2018

Revision Date 02/07/2018

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**Product Name: Differentiating Solution**


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

Health = 1

Fire = 3

Reactivity = 0

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

Health = 1

Fire = 3

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	<80%
7647-01-0	hydrogen chloride	<2%

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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

Review Date 02/14/2018

Revision Date 02/07/2018

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**Product Name: Differentiating Solution**


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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**

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**

<b>PAC-1:</b>		
64-17-5	ethanol	1,800 ppm
7647-01-0	hydrogen chloride	1.8 ppm
<b>PAC-2:</b>		
64-17-5	ethanol	3300* ppm
7647-01-0	hydrogen chloride	22 ppm
<b>PAC-3:</b>		
64-17-5	ethanol	15000* ppm
7647-01-0	hydrogen chloride	100 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**

<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
<b>7647-01-0 hydrogen chloride</b>	
PEL	Ceiling limit value: 7 mg/m <sup>3</sup> , 5 ppm
REL	Ceiling limit value: 7 mg/m <sup>3</sup> , 5 ppm
TLV	Ceiling limit value: 2.98 mg/m <sup>3</sup> , 2 ppm

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

Revision Date 02/07/2018

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**Product Name: Differentiating Solution**


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

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

Keep away from foodstuffs, beverages and feed.

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

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## 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>	Alcohol-like
<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>	Undetermined.
<b>Flash point:</b>	Not applicable.
<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Ignition temperature:</b>	425 °C (797 °F)
<b>Decomposition temperature:</b>	Not determined.
<b>Auto igniting:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	3.5 Vol %

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

Revision Date 02/07/2018

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**Product Name: Differentiating Solution**


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<b>Upper:</b>	15 Vol %
<b>Vapor pressure at 20 °C (68 °F):</b>	59 hPa (44.3 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.

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## 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
7647-01-0	hydrogen chloride	3
<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.		

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# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

Revision Date 02/07/2018

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**Product Name: Differentiating Solution**


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### 12 Ecological Information

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

<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> Stowage Category	Not applicable. A
<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

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

Revision Date 02/07/2018

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**Product Name: Differentiating Solution**


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### 15 Regulatory Information

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

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

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:**

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
7647-01-0	hydrogen chloride	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:**

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.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

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**Product Name: Differentiating Solution**

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** 02/14/2018 / -

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

Review Date 02/14/2018

Revision Date 02/07/2018

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

**Product Name:** 5% Potassium Permanganate

**SDS Code:** SSKC111

**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**



GHS09 Environment

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

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**



GHS09

**Signal word** Not applicable

**Hazard statements**

Toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

**Precautionary statements**

Avoid release to the environment.

Collect spillage.

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

**Classification system:**

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

Health = 1

Fire = 0

Reactivity = 0

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

Revision Date 02/07/2018

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**Product Name: 5% Potassium Permanganate**


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**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:**

7722-64-7	potassium permanganate	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:**

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.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

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**Product Name: 5% Potassium Permanganate**


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See Section 13 for disposal information.

**Protective Action Criteria for Chemicals**

<b>PAC-1:</b>		
7722-64-7	potassium permanganate	8.6 mg/m <sup>3</sup>
<b>PAC-2:</b>		
7722-64-7	potassium permanganate	14 mg/m <sup>3</sup>
<b>PAC-3:</b>		
7722-64-7	potassium permanganate	150 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.

**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.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

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**Product Name: 5% Potassium Permanganate**


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

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### 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>	Violet
<b>Odor:</b>	Nearly 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>	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.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

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**Product Name: 5% Potassium Permanganate**


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

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## 11 Toxicology Information

**Information on toxicological effects**
**Acute toxicity:**
**LD/LC50 values that are relevant for classification:**
**7722-64-7 potassium permanganate**

Oral	LD50	1,090 mg/kg (rat)
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**Primary irritant effect:**
**On the skin:** No irritant effect.

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

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**
**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.
 

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## 12 Ecological Information

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

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

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

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

**Ecotoxicological effects:**
**Remark:** Toxic for fish

**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.

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.
 

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# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

Revision Date 02/07/2018

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**Product Name: 5% Potassium Permanganate**


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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>	
<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. (Potassium permanganate)
<b>IMDG</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (POTASSIUM PERMANGANATE), MARINE POLLUTANT
<b>IATA</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (POTASSIUM PERMANGANATE)
<b>Transport hazard class(es)</b>	
<b>DOT</b>	
<b>Class</b>	Not applicable
<b>ADR, IMDG, IATA</b>	
	
<b>Class</b>	9 Miscellaneous dangerous substances and articles
<b>Label</b>	9
<b>Packing group</b>	
<b>DOT</b>	Not applicable
<b>ADR, IMDG, IATA</b>	III
<b>Environmental hazards</b>	Product contains environmentally hazardous substances: potassium permanganate
<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>	Permanganates
<b>Stowage Category</b>	A
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable.

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

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**Product Name: 5% Potassium Permanganate**


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<b>Transport/Additional information:</b>	
<b>ADR</b> <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<b>IMDG</b> <b>Limited quantities (LQ)</b> <b>Excepted 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. (POTASSIUM PERMANGANATE), 9, III

## 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.
<b>Section 313 (Specific toxic chemical listings):</b>
7722-64-7   potassium permanganate
<b>TSCA (Toxic Substances Control Act):</b>
All ingredients are listed.
<b>Proposition 65</b>
<b>Chemicals known to cause cancer:</b>
None of the ingredients is listed.
<b>Chemicals known to cause reproductive toxicity for females:</b>
None of the ingredients are listed.
<b>Chemicals known to cause reproductive toxicity for males:</b>
None of the ingredients are listed.
<b>Chemicals known to cause developmental toxicity:</b>
None of the ingredients are listed.
<b>Carcinogenic categories</b>
<b>EPA (Environmental Protection Agency)</b>
7722-64-7   potassium permanganate
D
<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.
<b>GHS label elements</b> The product is classified and labeled according to the Globally Harmonized System (GHS).

# SAFETY DATA SHEET

## In Accordance with ISO/DIS 11014

Review Date 02/14/2018

Revision Date 02/07/2018

---

**Product Name: 5% Potassium Permanganate**


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**Hazard pictograms**

GHS09

**Signal word** Not applicable**Hazard statements**

Toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

**Precautionary statements**

Avoid release to the environment.

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.

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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** 02/14/2018 / -**Abbreviations and acronyms:**

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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)

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 &amp; Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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



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

Review Date 02/14/2018

Revision Date 02/07/2018

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**Product Name: 5% Potassium Permanganate**

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