

# Safety Data Sheet Trichrome Stain Kit (OSHA)

# **SECTION 1: Identification**

## 1.1 GHS Product identifier

Product name

Trichrome Stain Kit (OSHA)

Product number Brand KT034 Trichrome Stain Kit

# 1.2 Other means of identification

Kit Component	Volume	Storage
1. Acetic Acid Solution (1%)	125 mL	15-30°C
2. Aniline Blue Stain	125 mL	15-30°C
3. Biebrich Scarlet-Acid	125 mL	15-30°C
4. Bouin's Fluid	125 mL	15-30°C
5. Phosphomolybdic/	125 ml	15-30°C
Phosphotungstic Acid	125 mL	15-30 C
6. Weigert's Hematoxylin "A"	125 mL	15-30°C
7. Weigert's Hematoxylin "B"	125 mL	15-30°C

#### **1.3 Recommended use of the chemical and restrictions on use** In Vitro Diagnostic Use

## 1.4 Supplier's details

Name Address	Diagnostic Biosystems 6616 Owens Drive Pleasanton CA 94588 USA
Telephone	(888) 896-3350
email	customersupport@dbiosys.com

## 1.5 Emergency phone number

(925) 484-3350 (9AM-6PM, Monday - Friday, Pacific Standard Time)

# **SECTION 2: Hazard identification**

## General hazard statement

For Professional Users Only

## 2.1 Classification of the substance or mixture

## GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Acute toxicity, dermal (chapter 3.1), Cat. 5
- Acute toxicity, inhalation (C.4.3), Cat. 4
- Acute toxicity, inhalation (chapter 3.1), Cat. 5
- Acute toxicity, oral (C.4.1), Cat. 4
- Carcinogenicity (C.4.9), Cat. 1B
- Germ cell mutagenicity (C.4.8), Cat. 2
- Skin corrosion/irritation (C.4.4), Cat. 1B
- Sensitization, skin (C.4.7), Cat. 1

### 2.2 GHS label elements, including precautionary statements

### Pictogram



1. Exclamation mark; 2. Health hazard; 3. Corrosion

Signal word	Danger
Hazard statement(s)	
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H332	Harmful if inhaled
H341	Suspected of causing genetic defects
H350	May cause cancer
Precautionary statement(s)	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER /doctor if you feel unwell,
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water/
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER/doctor.
P312	Call a POISON CENTER/doctor if you feel unwell.

P330	Rinse mouth.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container to a licensed disposal company.

# **SECTION 3: Composition/information on ingredients**

# 3.2 Mixtures

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## Components

Component 1. 1. Acetic acid		
Concentration	<= 1 % (volume)	
Other names / synonyms	acetic acid %; ACETIC ACID, conc.>90%; ACETIC ACID, GLACIAL; ACETICACID; Acidum aceticum; ETHANOIC ACID; ETHYLIC ACID; GLACIAL ACETIC ACID; METHANECARBOXYLIC ACID; UN 2789; UN 2790; VINEGAR ACID	
EC no.	200-580-7	
CAS no. Index no.	64-19-7 607-002-00-6	
<ul> <li>Flammable liquids (chapter 2.6), Ca</li> <li>Skin corrosion/irritation (chapter 3.2)</li> </ul>		
H226 H314 SCLs/M-factors/ATEs	Flammable liquid and vapor Causes severe skin burns and eye damage Skin Corr. 1A; H314: $C \ge 90 \%$ Skin Corr. 1B; H314: 25 % $\le C < 90 \%$ Skin Irrit. 2; H315: 10 % $\le C < 25 \%$ Eye Irrit. 2; H319: 10 % $\le C < 25 \%$	
Component 2. 1. Acetic acid		
Concentration	<= 2 % (volume)	
Other names / synonyms	acetic acid; ACETIC ACID; ACETIC ACID, GLACIAL; ACETICACID; Acidum aceticum; ETHANOIC ACID; ETHYLIC ACID; GLACIAL ACETIC ACID; METHANECARBOXYLIC ACID; UN 2789; UN 2790; VINEGAR ACID	
EC no. CAS no.	200-580-7 64-19-7	
Index no.	607-002-00-6	
- Flammable liquids (chapter 2.6), Cat. 3 - Skin corrosion/irritation (chapter 3.2), Cat. 1A		
H226 H314 SCLs/M-factors/ATEs	Flammable liquid and vapor Causes severe skin burns and eye damage Skin Corr. 1A; H314: $C \ge 90 \%$ Skin Corr. 1B; H314: 25 % $\le C < 90 \%$ Skin Irrit. 2; H315: 10 % $\le C < 25 \%$ Eye Irrit. 2; H319: 10 % $\le C < 25 \%$	

2. Aniline Blue Concentration	<= 2 % (weight)
Other names / synonyms	Benzenesulfonic acid, aminomethyl[[4-[(sulfophenyl)amino]phenyl][4-[(sulfophenyl)imino]-2,5-cycloh exadien-1-ylidene]methyl]-, disodium salt
CAS no.	28631-66-5
Component 3. 1. Acetic acid	
Concentration	<= 1 % (volume)
Other names / synonyms EC no. CAS no. Index no.	acetic acid; ACETIC ACID; ACETIC ACID, GLACIAL; ACETICACID; Acidum aceticum; ETHANOIC ACID; ETHYLIC ACID; GLACIAL ACETIC ACID; METHANECARBOXYLIC ACID; UN 2789; UN 2790; VINEGAR ACID 200-580-7 64-19-7 607-002-00-6
- Flammable liquids (chapter 2.6), Ca - Skin corrosion/irritation (chapter 3.2	
H226 H314 SCLs/M-factors/ATEs	Flammable liquid and vapor Causes severe skin burns and eye damage Skin Corr. 1A; H314: $C \ge 90 \%$ Skin Corr. 1B; H314: 25 % $\le C < 90 \%$ Skin Irrit. 2; H315: 10 % $\le C < 25 \%$ Eye Irrit. 2; H319: 10 % $\le C < 25 \%$
2. Biebrich Scarlet Concentration	<= 1 % (weight)
Other names / synonyms	Benzenesulfonic acid, 2-[(2-hydroxy-1-naphthalenyl)azo]-5-[(4-sulfophenyl)azo]-, disodium salt;
CAS no.	4196-99-0
<b>3. Fuchsin Acid</b> Concentration	<= 1 % (weight)
Other names / synonyms	Benzenesulfonic acid, 2-amino-5-[(4-amino-3-sulfophenyl)(4-imino-3-sulfo-2,5-cyclohexadien-1-ylid
CAS no.	ene)methyl]-3-methyl-, disodium salt; 3244-88-0

Component 4. 1. Formaldehyde Concentration	<= 8 % (volume)
Other names / synonyms EC no. CAS no. Index no.	Formaldehyde (gas) 200-001-8 50-00-0 605-001-00-5
<ul> <li>Carcinogenicity (chapter 3.6), Cat.</li> <li>Germ cell mutagenicity (chapter 3.5)</li> <li>Acute toxicity, inhalation (chapter 3.1),</li> <li>Acute toxicity, dermal (chapter 3.1),</li> <li>Acute toxicity, oral (chapter 3.1), Cater 3.2)</li> <li>Skin corrosion/irritation (chapter 3.2)</li> <li>Sensitization - skin (chapter 3.4), Cater 3.4)</li> </ul>	i), Cat. 2 1), Cat. 3 Cat. 3 at. 3 2), Cat. 1B
H301 H311 H314 H317 H331 H341 H350 SCLs/M-factors/ATEs	Toxic if swallowed Toxic in contact with skin Causes severe skin burns and eye damage May cause an allergic skin reaction Toxic if inhaled Suspected of causing genetic defects [route] May cause cancer [route] STOT SE 3; H335: $C \ge 5 \%$ Skin Corr. 1B; H314: $C \ge 25 \%$ Skin Irrit. 2; H315: $5 \% \le C < 25 \%$ Eye Irrit. 2; H319: $5 \% \le C < 25 \%$ Skin Sens. 1; H317: $C \ge 0,2 \%$
2. Acetic acid Concentration	<= 5 % (volume)
Concentration	<= 1 % (volume)
Other names / synonyms EC no. CAS no. Index no.	acetic acid; ACETIC ACID; ACETIC ACID, GLACIAL; ACETICACID; Acidum aceticum; ETHANOIC ACID; ETHYLIC ACID; GLACIAL ACETIC ACID; METHANECARBOXYLIC ACID; UN 2789; UN 2790; VINEGAR ACID 200-580-7 64-19-7 607-002-00-6
- Flammable liquids (chapter 2.6), Ca - Skin corrosion/irritation (chapter 3.2	
H226 H314 SCLs/M-factors/ATEs	Flammable liquid and vapor Causes severe skin burns and eye damage Skin Corr. 1A; H314: $C \ge 90 \%$ Skin Corr. 1B; H314: 25 % $\le C < 90 \%$ Skin Irrit. 2; H315: 10 % $\le C < 25 \%$ Eye Irrit. 2; H319: 10 % $\le C < 25 \%$

3. Methyl alcohol Concentration	<= 2 % (volume)	
Other names / synonyms	CARBINOL; COLONIAL SPIRIT; COLUMBIAN SPIRIT; Methanol; METHYL HYDROXIDE; METHYLALCOHOL; METHYLOL; MONOHYDROXYMETHANE; NA 1230 (DOT); PYROXYLIC SPIRIT; RCRA WASTE NUMBER U154; UN 1230 (DOT); WOOD ALCOHOL; WOOD NAPHTHA; WOOD SPIRIT	
EC no.	200-659-6	
CAS no.	67-56-1	
Index no.	603-001-00-X	
<ul> <li>Flammable liquids (chapter 2.6), Ca</li> <li>Acute toxicity, inhalation (chapter 3.</li> <li>Acute toxicity, dermal (chapter 3.1),</li> <li>Acute toxicity, oral (chapter 3.1), Ca</li> <li>Specific target organ toxicity, single</li> </ul>	1), Cat. 3 Cat. 3 at. 3	
H225	Highly flammable liquid and vapor	
H301	Toxic if swallowed	
H311	Toxic in contact with skin	
H331 H370	Toxic if inhaled	
SCLs/M-factors/ATEs	Causes damage to organs [organs, route] *	
	STOT SE 1; H370: C ≥ 10 %	
	STOT SE 2; H371: 3 % ≤ C < 10 %	
4. Picric acid		
Concentration	<= 1 % (volume)	
Other names / synonyms	Phenol, 2,4,6-trinitro-;	
EC no.	201-865-9	
CAS no.	88-89-1	
Index no.	609-009-00-X	
<ul> <li>Explosives (chapter 2.1), Division 1.1</li> <li>Acute toxicity, inhalation (chapter 3.1), Cat. 3</li> <li>Acute toxicity, dermal (chapter 3.1), Cat. 3</li> <li>Acute toxicity, oral (chapter 3.1), Cat. 3</li> </ul>		
H201	Explosive; mass explosion hazard	
H301	Toxic if swallowed	
H311	Toxic in contact with skin	
H331	Toxic if inhaled	
Component 5.		

1. Phosphomolybdic acid Hydrate Concentration

CAS no.

<= 2 % (weight) 51429-74-4

<b>2. Phosphotungstic Acid Hydrate</b> Concentration CAS no.	<= 2 % (weight) 12501-23-4	
Component 6. 1. Alcohol		
Concentration	<= 95 % (volume)	
Other names / synonyms	ABSOLUTE ETHANOL; ALCOHOL DEHYDRATED; ALCOHOL, ANHYDROUS; Alcoholum / ethanolum; ALGRAIN; ANHYDROL; COLOGNE SPIRIT; COLOGNE SPIRITS (ALCOHOL); Ethanol; ETHANOL 200 PROOF; ETHANOL SOLUTION; ETHYL ALCOHOL; ETHYL ALCOHOL ANHYDROUS; ETHYL HYDRATE; ETHYL HYDROXIDE; FERMENTATION ALCOHOL; GRAIN ALCOHOL; JAYSOL; JAYSOL S; METHYLCARBINOL; MOLASSES ALCOHOL; NCI-C03134; POTATO ALCOHOL; SD ALCOHOL 23-HYDROGEN; SPIRIT; SPIRITS OF WINE; TECSOL; UN 1170	
EC no.	200-578-6	
CAS no. Index no.	64-17-5 603-002-00-5	
- Flammable liquids (chapter 2.6), Cat. 2		
H225	Highly flammable liquid and vapor	
<b>2. Isopropyl alcohol</b> Concentration	<= 5 % (volume)	
Other names / synonyms	2-HYDROXYPROPANE; 2-Propanol; 2-PROPYL ALCOHOL; ALCOJEL; ALCOSOLVE; ALCOSOLVE 2; AVANTIN; AVANTINE; CHROMAR; COMBI-SCHUTZ; DIMETHYLCARBINOL; HARTOSOL; IMSOL A; ISOHOL; Isopropanol; LUTOSOL; N-PROPAN-2-OL; PETROHOL; PRO; PROPAN-2-OL; Propan-2-ol, isopropanol; PROPOL; reaction mass of: bis(1S,2S,4S)-(1-benzyl-4-tert-butoxycarboxamido-2-hydroxy-5-phenyl)pentyl ammonium succinate; SEC-PROPYL ALCOHOL; SPECTRAR; STERISOL HAND DISINFECTANT; TAKINEOCOL; UN 1219	
EC no.	414-810-0	
CAS no.	67-63-0	
Index no.	607-403-00-6	
<ul> <li>Flammable liquids (chapter 2.6), Ca</li> <li>Eye damage/irritation (chapter 3.3),</li> <li>Specific target organ toxicity, single</li> <li>Specific target organ toxicity repeat</li> </ul>	Cat. 2 exposure (chapter 3.8), Cat. 3	

- Specific target organ toxicity, repeated exposure (chapter 3.9), Cat. 2
- Eye damage/irritation (chapter 3.3), Cat. 1
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

H225 H318 H319 H335 H336 H373 H400 H410	Highly flammable liquid and vapor Causes serious eye damage Causes serious eye irritation May cause respiratory irritation May cause drowsiness or dizziness May cause damage to organs [organs] through prolonged or repeated exposure [route] Very toxic to aquatic life Very toxic to aquatic life with long lasting effects	
3. HEMATOXYLIN Concentration	<= 1 % (weight)	
Other names / synonyms CAS no.	Benz[b]indeno[1,2-d]pyran-3,4,6a,9,10(6H)-pentol, 7,11b-dihydro-, cis-(++)-; 517-28-2	
Component 7 1. Ferric chloride Concentration	<= 1 % (weight)	
Other names / synonyms CAS no.	Iron (III), chloride, hexahydrate; Iron trichloride 10025-77-1	
2. Hydrochloric acid		
Concentration	<= 1 % (volume)	
Other names / synonyms EC no. CAS no. Index no.	Acidum hydrochloricum; HYDROCHLORIC ACID; Hydrogen chloride 231-595-7 7647-01-0 017-002-01-X	
- Specific target organ toxicity, single exposure (chapter 3.8), Cat. 3 - Skin corrosion/irritation (chapter 3.2), Cat. 1B		
H314 H335 SCLs/M-factors/ATEs	Causes severe skin burns and eye damage May cause respiratory irritation Skin Corr. 1B; H314: $C \ge 25 \%$ Skin Irrit. 2; H315: 10 % $\le C < 25 \%$ Eye Irrit. 2; H319: 10 % $\le C < 25 \%$ STOT SE 3; H335: $C \ge 10 \%$	

# **SECTION 4: First-aid measures**

## 4.1 Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
In case of skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
If swallowed	Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
	Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.
Personal protective equipment for fire	st-aid responders Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

**4.2** Most important symptoms/effects, acute and delayed The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3** Indication of immediate medical attention and special treatment needed, if necessary No data available

# **SECTION 5: Fire-fighting measures**

# 5.1 Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

### 5.2 Specific hazards arising from the chemical

Methanol: Carbon oxides

## **5.3** Special protective actions for fire-fighters Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available.

# **SECTION 6: Accidental release measures**

## 6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

#### 6.2 Environmental precautions

Should not be released into the environment. See Section 12 for additional ecological information.

#### 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

#### **Reference to other sections**

For disposal see section 13.

## **SECTION 7: Handling and storage**

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

#### Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## **SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

### CAS: 50-00-0 (EC: 200-001-8)

Formaldehyde

; ; 0.75 ppm; ACGIH: 0.3 ppm PEL-C inhalation; NIOSH: 0.1 ppm PEL-C inhalation; 0.016 ppm PEL-TWA inhalation

## CAS: 500-00-0 (EC: 200-001-8)

Formaldehyde

### CAS: 64-17-5

#### Alcohol

ACGIH (USA): (ST) 1000 ppm TLV® inhalation; Cal/OSHA: 1000 ppm PEL inhalation; NIOSH: 1000 ppm REL inhalation; OSHA: 1000 ppm PEL inhalation; 1900 mg/m3 PEL inhalation

### CAS: 64-19-7 (EC: 200-580-7)

#### Acetic acid

ACGIH (USA): 15 ppm STEL inhalation; 10 ppm, (ST) 15 ppm TLV® inhalation; 10 ppm TWA inhalation; Cal/OSHA (USA): 40 ppm C inhalation; 10 ppm, (ST) 15 ppm, (C) 40 ppm PEL inhalation; 10 ppm, 25 mg/m3 PEL inhalation; 15 ppm, 37 mg/m3 STEL inhalation; NIOSH (USA): 10 ppm, (ST) 15 ppm REL inhalation; 15 ppm, 37 mg/m3 ST inhalation; 10 ppm, 25 mg/m3 TWA inhalation; OSHA (USA): 25 mg/m3 PEL inhalation; 10 ppm PEL inhalation; 10 ppm, 25 mg/m3 TWA inhalation; OSHA (USA): 25 mg/m3 PEL inhalation; 10 ppm PEL inhalation; 10 ppm, 25 mg/m3 TWA inhalation; OSHA (USA): 25 mg/m3 PEL inhalation; 10 ppm PEL inhalation; 10 ppm, 25 mg/m3 TWA inhalation; OSHA (USA): 25 mg/m3 PEL inhalation; 10 ppm PEL inhalation; 10 ppm, 25 mg/m3 TWA inhalation; OSHA (USA): 25 mg/m3 PEL inhalation; 10 ppm PEL inhalation; 10 ppm PEL inhalation; 10 ppm, 25 mg/m3 TWA inhalation; OSHA (USA): 25 mg/m3 PEL inhalation; 10 ppm PEL inhalatin; 10 ppm PE

### CAS: 67-56-1 (EC: 200-659-6)

Methyl alcohol

ACGIH: 200 ppm TLV® inhalation; 250 ppm (ST) TLV® inhalation; Cal/OSHA: 1000 ppm PEL-C inhalation; 250 ppm PEL-ST inhalation; 200 ppm PEL-TWA inhalation; NIOSH: 250 ppm PEL-ST inhalation; 200 ppm REL-TWA inhalation; OSHA: 200 ppm, 260 mg/m3 PEL-TWA inhalation

### CAS: 67-63-0

Isopropyl alcohol

ACGIH (USA): 200 ppm, (ST) 400 ppm TLV® inhalation; Cal/OSHA: 400 ppm, (ST) 500 ppm PEL inhalation; NIOSH: 400 ppm, (ST) 500 ppm REL inhalation; OSHA: 400 ppm PEL inhalation; 980 mg/m3 PEL inhalation

## CAS: 7647-01-0

Hydrochloric acid

Cal/OSHA: (C) 5 ppm PEL inhalation; NIOSH: (C) 5 ppm REL inhalation; OSHA: (C) 5 ppm PEL inhalation; (C) 7 mg/m3 PEL inhalation

## CAS: 88-89-1

Picric acid

Cal/OSHA: 0.1 mg/m3 PEL inhalation; NIOSH: 0.1 mg/m3, (ST) 0.3 mg/m3 REL inhalation; OSHA: 0.1 mg/m3 PEL inhalation

#### 8.2 Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### 8.3 Individual protection measures, such as personal protective equipment (PPE)

#### Pictograms



### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### **Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### **Body protection**

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Thermal hazards

No data available

## **Control banding approach**

No data available.

#### **Environmental exposure controls**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

# **SECTION 9: Physical and chemical properties and safety characteristics**

Physical state Appearance	Liquid Clear
Color	Varies
Odor	No data available.
Odor threshold	No data available.
pH	No data available
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Vapor pressure	No data available.
Relative vapor density	No data available.
Density and/or relative density	No data available.
Solubility	No data available.
Partition coefficient n-octanol/water (log value)	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

## **Particle characteristics**

No data available.

**Supplemental information regarding physical hazard classes** No data available.

Further safety characteristics (supplemental) No data available.

# **SECTION 10: Stability and reactivity**

10.1 Reactivity

None under normal use conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions** None under normal use conditions.

# 10.4 Conditions to avoid

Exposure to moisture.

Avoid storing in direct sunlight and avoid extremes of temperature.

Heat, flames and sparks.

#### 10.5 Incompatible materials

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Acetic acid: Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium

permanganate, Amines, Alcohols, Nitric acid

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Methanol: Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids

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Ethanol: Alkali metals, Oxidizing agents, Peroxides

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Isopropanol: Oxidizing agents, Acid anhydrides, Aluminium, Halogenated compounds, Acids

#### 10.6 Hazardous decomposition products

Other decomposition products - No data available In the event of fire: see section 5

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Acetic acid: Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available In the event of fire: see section 5

# **SECTION 11: Toxicological information**

### Information on toxicological effects

#### Acute toxicity

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Ethanol: ACGIH: A3 Confirmed animal carcinogen with unknown relevance to humans.

The ATE (dermal) of the mixture is: 2727.27 mg/kg bw

The ATE (gas inhalation) of the mixture is: 6363.64 ppmV

The ATE (vapor inhalation) of the mixture is: 27.27 mg/l

The ATE (oral) of the mixture is: 909.09 mg/kg bw

Methanol LD50 Oral - Rat - 1,187 - 2,769 mg/kg

Acetic acid LD50 Oral - Rat - 3,310 mg/kg

**Skin corrosion/irritation** Acetic acid LD50 Skin - Rat - 1,112 mg/kg

ETHANOL LD50 Skin - Rabbit - 15,800 mg/kg

ETHANOL OECD Test Guideline 404 Skin - Rabbit - 24 h Result: No skin irritation

ISOPROPANOL LD50 Skin - Rabbit - 12,800 mg/kg

Methanol LD50 Skin - Rabbit - 17,100 mg/kg

## Serious eye damage/irritation

ETHANOL OECD Test Guideline 405 Eyes - Rabbit Result: Moderate eye irritation

### Respiratory or skin sensitization

Acetic acid LC50 Inhalation - Mouse - 5620 ppm - 1 h Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Other. Blood:Other changes.

Acetic acid LC50 Inhalation - Rat - 11.4 mg/l - 4 h

ETHANOL LD50 Inhalation - Rat - 30,000 mg/l - 4 h

ISOPROPANOL LC50 Inhalation - Rat - 16000 ppm - 8 h

Methanol LD50 Inhalation - Rat - 128.2 mg/l - 4 h

Methanol LD50 Inhalation - Rat - 87.6 mg/l - 6 h

### Germ cell mutagenicity

Based on available data, classification data are not met

Carcinogenicity Formaldehyde

Remarks: IARC: 1 - Group 1: Carcinogenic to humans (Formaldehyde) NTP: Known to be human carcinogen (Formaldehyde) OSHA: OSHA specifically regulated carcinogen (Formaldehyde)

#### **Reproductive toxicity**

Based on available data, classification data are not met

# STOT-single exposure

No data available.

# STOT-repeated exposure

No data available.

## Aspiration hazard

Acetic acid LC50 Inhalation - Mouse - 5620 ppm - 1 h

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Other. Blood:Other changes.

Acetic acid LC50 Inhalation - Rat - 11.4 mg/l - 4 h

ETHANOL LD50 Inhalation - Rat - 30,000 mg/l - 4 h

ISOPROPANOL LC50 Inhalation - Rat - 16000 ppm - 8 h

Methanol LD50 Inhalation - Rat - 128.2 mg/l - 4 h

Methanol LD50 Inhalation - Rat - 87.6 mg/l - 6 h

Additional information

No data available.

## **SECTION 12: Ecological information**

#### Toxicity

Acetic acid LC50 - Oncorhynchus mykiss (rainbow trout) - >1,000 mg/l - 96 h Citation: (OECD Test Guideline 203)

Acetic acid EC50 - Daphnia magna (water flea) - >300.82 mg/l - 48 h Citation: (OECD Test Guideline 202)

ETHANOL LC50 - Pimephales promelas (fathead minnow) - 14,200 mg/l - 96 h

ETHANOL LC50 - Ceriodaphnia dubia (water flea) - 5,012 mg/l - 48 h

ISOPROPANOL LC50 - Pimephales promelas (fathead minnow) - 9,640.00 mg/l - 96 h

ISOPROPANOL EC50 - Daphnia magna (water flea) - 5,102.00 mg/l - 24 h

ISOPROPANOL EC50 - Daphnia magna (water flea) - 6,851 mg/l - 24 h

ISOPROPANOL EC50 - Desmodesmus subspicatus (chodat) - > 2,000.00 mg/l - 72 h

ISOPROPANOL EC50 - Algae - > 1,000.00 mg/l - 24 h

Methanol LC50 - Lepomis macrochirus (bluegill) - 15.400 mg/l - 96 h

Methanol NOEC - Oryzias latipes - 7.900 mg/l - 200 h

Methanol EC50 - Daphnia magna (water flea) - >10,000 mg/l - 48 h

Methanol EC50 - Selenastrum capricornutum (green algae) - 22,000 mg/l - 96 h

## Persistence and degradability

No data available.

## **Bioaccumulative potential**

No data available.

### Mobility in soil

No data available.

### Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

# Endocrine disrupting properties

No data available.

# Other adverse effects

No data available.

# **SECTION 13: Disposal considerations**

## **Disposal methods**

### **Product disposal**

Offer surplus and non-recyclable solutions to a licensed disposal company.

### Packaging disposal Dispose of as unused product.

Waste treatment No data available

Sewage disposal Do not let product enter drains

### Other disposal recommendations

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

## **SECTION 14: Transport information**

### DOT (US) UN Number: UN3316 Class: 9 Packing Group: Proper Shipping Name: Chemical kits Reportable quantity (RQ): Marine pollutant:

Poison inhalation hazard:

IMDG UN Number: UN3316 Class: 9 Packing Group: EMS Number: Proper Shipping Name: Chemical kits

IATA

UN Number: UN3316 Class: 9 Packing Group: Proper Shipping Name: Chemical kits

# **SECTION 15: Regulatory information**

## 15.1 Safety, health and environmental regulations specific for the product in question

California Prop. 65 Components Chemical name: Formaldehyde

CAS number: 50-00-0 01/01/1988 - Cancer

State of California to cause birth defects or other reproductive harm. Methanol CAS-No. 67-56-1

Chemical name: Methanol CAS number: 67-56-1 03/16/2012 - Developmental toxicity

WARNING! This product contains a chemical known to the State of California to cause cancer. CAS-No. 64-17-5: Ethanol

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. CAS-No. 64-17-5: Ethanol

## **Canadian Domestic Substances List (DSL)**

Chemical name: Acetic acid CAS: 64-19-7

Chemical name: Benzenesulfonic acid, aminomethyl[[4-[(sulfophenyl)amino]phenyl][4-[(sulfophenyl)imino]-2,5-cyclohexadien-1-ylidene]methyl]-, disodium salt CAS: 28631-66-5

Chemical name: Benzenesulfonic acid, 2-[(2-hydroxy-1-naphthalenyl)azo]-5-[(4-sulfophenyl)azo]-, disodium salt CAS: 4196-99-0

Chemical name: Benzenesulfonic acid, 2-amino-5-[(4-amino-3-sulfophenyl)(4-imino-3-sulfo-2,5-cyclohexadien-1-ylidene)methyl]-3-methyl-, disodium salt CAS: 3244-88-0

Chemical name: Formaldehyde

CAS: 50-00-0

Chemical name: Methanol CAS: 67-56-1

Chemical name: Phenol, 2,4,6-trinitro-CAS: 88-89-1

Chemical name: Ethanol CAS: 64-17-5

Chemical name: 2-Propanol CAS: 67-63-0

Chemical name: Benz[b]indeno[1,2-d]pyran-3,4,6a,9,10(6H)-pentol, 7,11b-dihydro-, cis-(++)-CAS: 517-28-2

Chemical name: Hydrochloric acid CAS: 7647-01-0

#### Massachusetts Right To Know Components

Acetic acid CAS number: 64-19-7

Chemical name: Formaldehyde CAS number: 50-00-0

Chemical name: Methanol CAS number: 67-56-1

Chemical name: Picric acid CAS number: 88-89-1

Chemical name: Ethanol CAS number: 64-17-5

Isopropyl alcohol CAS number: 67-63-0

Chemical name: Hydrochloric acid CAS number: 7647-01-0

#### New Jersey Right To Know Components Acetic acid

CAS number: 64-19-7

Common name: FORMALDEHYDE CAS number: 50-00-0

Chemical name: Methanol CAS number: 67-56-1

Common name: 2,4,6-TRINITROPHENOL CAS number: 88-89-1

Common name: ETHYL ALCOHOL CAS number: 64-17-5

Isopropyl alcohol CAS number: 67-63-0

Common name: HYDROGEN CHLORIDE CAS number: 7647-01-0

# Pennsylvania Right To Know Components

Acetic acid CAS number: 64-19-7

Chemical name: Formaldehyde CAS number: 50-00-0

Chemical name: Methanol CAS number: 67-56-1

Chemical name: Phenol, 2,4,6-trinitro-CAS number: 88-89-1

Chemical name: Ethanol CAS number: 64-17-5

Isopropyl alcohol CAS number: 67-63-0

Chemical name: Hydrochloric acid CAS number: 7647-01-0

### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

### SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

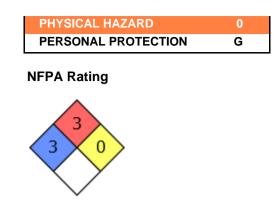
The following components are subject to reporting levels established by SARA Title III, Section 313: Isopropyl alcohol CAS number: 67-63-0

#### 15.2 Chemical Safety Assessment

The supplier of this product has not conducted any Chemical Safety Assessment

## **HMIS Rating**

Trichrome Stain Kit (OSHA)	
HEALTH	3
FLAMMABILITY	3



# **SECTION 16: Other information**

SDS-0081 Rev. B

## 16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Diagnostic BioSystems be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Diagnostic BioSystems has been advised of the possibility of such damages.