

**Safety Data Sheet**  
**Mucicarmine Stain Kit (OSHA)**



**Safety Data Sheet**  
**Mucicarmine Stain Kit (OSHA)**

---

**SECTION 1: Identification**

**1.1 GHS Product identifier**

Product name	Mucicarmine Stain Kit (OSHA)
Product number	KT024
Brand	Mucicarmine Stain Kit

**1.2 Other means of identification**

Component 1. Mucicarmine Solution  
Component 2. Tartrazine Solution  
Component 3. Mayers Hematoxylin

**1.3 Recommended use of the chemical and restrictions on use**

In Vitro Diagnostic Use

**1.4 Supplier's details**

Name	Diagnostic Biosystems
Address	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)**

- Eye damage/irritation (C.4.5), Cat. 2A
- Skin corrosion/irritation (C.4.4), Cat. 2

# Safety Data Sheet

## Mucicarmine Stain Kit (OSHA)

### 2.2 GHS label elements, including precautionary statements

#### Pictogram



1. Exclamation mark

#### Signal word

#### Warning

#### Hazard statement(s)

H315

H317

H319

H332

Causes skin irritation

May cause an allergic skin reaction

Causes serious eye irritation

Harmful if inhaled

#### Precautionary statement(s)

P261

P271

P272

P280

P302+P352

P304+P340

P312

P333+P313

P362+P364

P501

P305+P351+P338

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

Use only outdoors or in a well-ventilated area.

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

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

IF ON SKIN: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

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

Take off contaminated clothing and wash it before reuse.

Dispose of contents/container to a licensed disposal company.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

If skin irritation occurs: Get medical advice/attention.

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

---

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Components

##### Component 1.

##### 1. Aluminum chloride

Concentration <= 1 % (weight)

Other names / synonyms

Aluminium chloride; Aluminum chloride (AlCl<sub>3</sub>)

EC no.

231-208-1

CAS no.

7446-70-0

Index no.

013-003-00-7

- Skin corrosion/irritation (chapter 3.2), Cat. 1B

H314

Causes severe skin burns and eye damage

##### 2. Ci 77002

# Safety Data Sheet

## Mucicarmine Stain Kit (OSHA)

Concentration <= 1 % (weight)

Other names / synonyms Aluminium hydroxide; Aluminium hydroxide sulphate; Aluminum hydroxide; Aluminum hydroxide (Al(OH)3); C.I. Pigment White 24;

EC no. 244-492-7

CAS no. 21645-51-2

### 3. Ci 75470

Concentration <= 0.5 % (weight)

Other names / synonyms 2-Anthracenecarboxylic Acid, 7-\b-D-glucopyranosyl-9, 10-dihydro-3,5,6,8-tetrahydroxy-1-methyl-9,10-dioxo-, Carmine 5297, Carmine (Coccus cacti L.) (RIFM), Carmine Ultra-Fine, Carminic Acid, Carminic Acid Lake, CI 75470, Natural Red 4; Carmine;

CAS no. 1390-65-4

### Component 2.

#### 1. Acetic acid

Concentration <= 0.2 % (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. 200-580-7

CAS no. 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 Flammable liquid and vapor

H314 Causes severe skin burns and eye damage

SCLs/M-factors/ATEs Skin Corr. 1A; H314: C ≥ 90 %  
Skin Corr. 1B; H314: 25 % ≤ C < 90 %  
Skin Irrit. 2; H315: 10 % ≤ C < 25 %  
Eye Irrit. 2; H319: 10 % ≤ C < 25 %

### 2. Ci 19140

Concentration <= 0.2 % (weight)

Other names / synonyms 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-5-oxo-1-(4-sulfophenyl)-4-[(4-sulfophenyl)azo]-, trisodium salt; 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-5-oxo-1-(4-sulfophenyl)-4-[2-(4-sulfophenyl)diazenyl]-, sodium salt (1:3); Acid Yellow; Acid Yellow ; Tartrazine; Trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate

EC no. 217-699-5

CAS no. 1934-21-0

# Safety Data Sheet

## Mucicarmine Stain Kit (OSHA)

- Sensitization - respiratory (chapter 3.4), Cat. 1
- Sensitization - skin (chapter 3.4), Cat. 1

H317 May cause an allergic skin reaction  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

### Component 3.

#### 1. Glycerin

Concentration <= 30 % (volume)

Other names / synonyms 1,2,3-Propanetriol; 1,2,3-TRIHIDROXYPROPANE; 90 TECHNICAL GLYCERINE; GLYCERIN, ANHYDROUS; GLYCERIN, SYNTHETIC; Glycerin, U.S.P.; GLYCERINE; Glycerine ; GLYCERITOL; Glycerol; Glycerolum; GLYCYL ALCOHOL; SYNTHETIC GLYCERINE; TRIHYDROXYPROPANE

EC no. 200-289-5

CAS no. 56-81-5

#### 2. Aluminum sulfate

Concentration <= 5 % (weight)

Other names / synonyms Aluminii sulfas; Aluminium sulfate; Aluminium sulphate; Sulfuric acid, aluminum salt (3:2)

CAS no. 10043-01-3

#### 3. 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. 200-580-7

CAS no. 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 Flammable liquid and vapor  
H314 Causes severe skin burns and eye damage  
SCLs/M-factors/ATEs Skin Corr. 1A; H314: C ≥ 90 %  
Skin Corr. 1B; H314: 25 % ≤ C < 90 %  
Skin Irrit. 2; H315: 10 % ≤ C < 25 %  
Eye Irrit. 2; H319: 10 % ≤ C < 25 %

### 4. HEMATOXYLIN

# Safety Data Sheet

## Mucicarmin Stain Kit (OSHA)

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

---

### 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 first-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

Carbon oxides

#### 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### Further information

No data available.

# Safety Data Sheet

## Mucicarmine Stain Kit (OSHA)

---

### 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: 56-81-5 (EC: 200-289-5)

Glycerin

ACGIH (USA): 10 mg/m<sup>3</sup> TWA inhalation; Cal/OSHA: 10 mg/m<sup>3</sup>, PNOR PEL inhalation; 5 mg/m<sup>3</sup>, PNOR PEL inhalation; OSHA: 15 mg/m<sup>3</sup> PEL inhalation; 5 mg/m<sup>3</sup> PEL inhalation; 15 mg/m<sup>3</sup> TWA inhalation; 5 mg/m<sup>3</sup> TWA 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/m<sup>3</sup> PEL inhalation; 15 ppm, 37 mg/m<sup>3</sup> STEL inhalation; NIOSH (USA): 10 ppm, (ST) 15 ppm REL inhalation; 15 ppm, 37 mg/m<sup>3</sup> ST inhalation; 10 ppm, 25 mg/m<sup>3</sup> TWA inhalation; OSHA (USA): 25 mg/m<sup>3</sup> PEL inhalation; 10 ppm PEL inhalation; 10 ppm, 25 mg/m<sup>3</sup> TWA inhalation

# Safety Data Sheet

## Mucicarmine Stain Kit (OSHA)

### 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	Liquid
Appearance	Clear
Color	Not applicable
Odor	Odorless
Odor threshold	No data available.
pH	Not applicable
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.

# Safety Data Sheet

## Mucicarmine Stain Kit (OSHA)

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

-----

Aluminum hydroxide: Strong acids

-----

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

-----

Acid Yellow : Strong oxidizing agents

-----

Glycerine : Strong bases, Strong oxidizing agents

### 10.6 Hazardous decomposition products

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

-----

Acetic acid: Hazardous decomposition products formed under fire conditions. - Carbon oxides  
Other decomposition products - No data available



# Safety Data Sheet

## Mucicarmines Stain Kit (OSHA)

In the event of fire: see section 5

-----

Acid Yellow : Other decomposition products - no data available

In the event of fire: see section 5

---

### SECTION 11: Toxicological information

#### Information on toxicological effects

##### Acute toxicity

-----

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

Acetic acid

LD50 Oral - Rat - 3,310 mg/kg

Acid yellow

LD50 Oral - Mouse - 12,750 mg/kg

Aluminum hydroxide

LD50 Oral - Rat - > 2,000 mg/kg

Glycerol

LD50 Oral - Rat - 12,600 mg/kg

##### Skin corrosion/irritation

Acetic acid

LD50 Skin - Rat - 1,112 mg/kg

Glycerol

LD50 Skin - Rabbit - >10,000 mg/kg

##### Serious eye damage/irritation

Causes serious eye irritation.

##### Respiratory or skin sensitization

Based on available data, classification data are not met

##### Germ cell mutagenicity

Based on available data, classification data are not met

##### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

##### Reproductive toxicity

Based on available data, classification data are not met

##### STOT-single exposure

# Safety Data Sheet

## Mucicarmines Stain Kit (OSHA)

No data available.

### STOT-repeated exposure

No data available.

### Aspiration hazard

No data available.

### 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)

Acid yellow

EC50 - Daphnia magna (water flea) - 5,706.55 mg/l - 48 h

Aluminum hydroxide

LC50 - Salmo trutta - > 0.07 mg/l - 96 h

Aluminum hydroxide

EC50 - Daphnia magna (water flea) - > 0.005 mg/l - 48 h

Aluminum hydroxide

EC50 - Pseudokirchneriella subcapitata (green algae) - > 0.004 mg/l - 72 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

# Safety Data Sheet

## Mucicarmine Stain Kit (OSHA)

### 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)

Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

---

## SECTION 15: Regulatory information

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

#### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### Canadian Domestic Substances List (DSL)

Chemical name: Carmine

CAS: 1390-65-4

Chemical name: Aluminum chloride (AlCl<sub>3</sub>)

CAS: 7446-70-0

Chemical name: Aluminum hydroxide (Al(OH)<sub>3</sub>)

CAS: 21645-51-2

Chemical name: C.I. Pigment White 24

CAS: 8011-94-7

Chemical name: Acetic acid

CAS: 64-19-7

Chemical name: 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-5-oxo-1-(4-sulfophenyl)-4-[(4-sulfophenyl)azo]-, trisodium salt

CAS: 1934-21-0

## Safety Data Sheet

### Mucicarmine Stain Kit (OSHA)

Chemical name: 1,2,3-Propanetriol  
CAS: 30918-77-5

Chemical name: 1,2,3-Propanetriol  
CAS: 56-81-5

Chemical name: Sulfuric acid, aluminum salt (3:2)  
CAS: 10043-01-3

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

#### Massachusetts Right To Know Components

Acetic acid  
CAS number: 64-19-7

Glycerol  
CAS-No. 56-81-5

Chemical name: Aluminum sulfate  
CAS number: 10043-01-3

#### New Jersey Right To Know Components

Common name: ALUMINUM CHLORIDE  
CAS number: 7446-70-0

Aluminium hydroxide  
CAS-No. 21645-51-2

Acetic acid  
CAS number: 64-19-7

Trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate  
CAS-No. 1934-21-0

Glycerol  
CAS-No. 56-81-5

Common name: ALUMINUM SULFATE  
CAS number: 10043-01-3

#### Pennsylvania Right To Know Components

Chemical name: Aluminum chloride  
CAS number: 7446-70-0

Aluminium hydroxide  
CAS-No. 21645-51-2

Acetic acid  
CAS number: 64-19-7

Trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate  
CAS-No. 1934-21-0

# Safety Data Sheet

## Mucicarmine Stain Kit (OSHA)

Glycerol  
CAS-No. 56-81-5

Chemical name: Sulfuric acid, aluminum salt (3:2)  
CAS number: 10043-01-3

### 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

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.  
that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

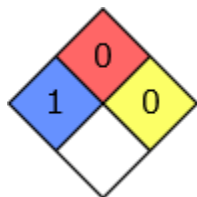
## 15.2 Chemical Safety Assessment

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

### HMIS Rating

Mucicarmine Stain Kit (OSHA)	
HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	C

### NFPA Rating



---

## SECTION 16: Other information

SDS-0092, 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,

**Safety Data Sheet**  
**Mucicarmine Stain Kit (OSHA)**

incidental, consequential or exemplary damages, whatsoever arising, even if Diagnostic BioSystems has been advised of the possibility of such damages.