



## Grocott-Gomori's Methenamine Silver Stain Kit MSDS

Revised: Oct, 30, 2023

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

**SKU#** VB-2003  
**Product name** VitroView™ Grocott-Gomori's Methenamine Silver Stain Kit

#### Contact Manufacturer

**VitroVivo Biotech, LLC**  
405 E. Gude Drive, Suite 214  
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USA

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No
Chromium trioxide	1333-82-0
Distilled water	7732-18-5
Sodium Bisulfite	7631-90-5
DdH2o	1609-47-8
Silver nitrate	7761-88-8
ddH2O	7732-18-5
3% Methenamine	100-97-0
Sodium borate	1303-96-4
ddH2O	7732-18-5
Sodium thiosulfate	7772-98-7
ddH2o	1609-47-8
Light green SF yellow	5141-20-8
ddH2o	1609-47-8
Glacial acetic acid	64-19-7

### 3. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture GHS Classification, (in accordance with 29 CFR1910.1200)  
Oxidizing liquid, Category 1 Fungus, Grocott Methenamine Silver, GMS Stain Kit 9121 Not applicable 6140  
Laboratory Chemicals 2. Acute toxicity (oral), Category 3 Acute toxicity (inhalation), Category 1 Acute toxicity  
(dermal), Category 2 Skin corrosion, Category 1 Serious eye damage, Category 1 Skin sensitisation, Category 1

Respiratory sensitization, Category 1 Germ cell mutagenicity, Category 1B Carcinogenicity, Category 1A Reproductive toxicity, Category 2

2.2 GHS Label elements Signal Word

Hazard Statement(s):

May cause fire or explosion; strong oxidizer

Toxic if swallowed

Fatal in contact with skin

Fatal if inhaled

Causes severe skin burns and eye damage

May cause an allergic skin reaction

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause genetic defects

May cause cancer

Suspected of damaging fertility or the unborn child

Precautionary Statement(s):

Prevention:

Obtain special instructions before use.

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

Keep away from heat/sparks/open flames/hot surfaces – No smoking.

Keep/Store away from clothing/.../combustible materials.

Take any precaution to avoid mixing with combustibles.

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

Wear fire/flame resistant/retardant clothing.

Wash skin thoroughly after handling.

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

Do not get in eyes, on skin, or on clothing.

Use only outdoors or in a well-ventilated area.

Do not breathe dust/fume/gas/mist/vapours/spray.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

In case of fire: See section 5 for extinction methods.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Specific treatment: see first aid measures in section 4.

Immediately call a POISON CENTER or doctor/physician.

Storage:

Store locked up.

Store in a well ventilated place. Keep container tightly closed.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Description of any hazards not otherwise classified	None
>1% of mixture with unknown acute toxicity	None

## 4. FIRST AID MEASURES

4.1 Description of necessary measures

Inhalation (breathing)

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

**Skin Contact**

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.

**Eye Contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Immediately call a POISON CENTER or doctor/physician.

**Ingestion (swallowed)**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

**4.2 Most important symptoms and or effects, acute and delayed**

The most important symptoms/effects are presented in Section 2 and or Section 11.

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

## 5. HANDLING AND STORAGE

**5.1 Precautions for safe handling**

Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

**5.2 Conditions for safe storage, including any incompatibilities**

Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**8.1 Control Parameters**

Does not contain components with occupational exposure limits.

**8.2 Exposure Controls**

Appropriate engineering controls

Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises.

**8.3 Personal Protective Equipment**

Eye/Face protection	Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.
Skin Protection	Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.
Body Protection	No data available
Respiratory Protection	No data available
Other Information	None

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**9.1 Information on basic physical and chemical properties**

Physical state	Translucent, colorless liquid
Odor	Odorless
Odor threshold	No data available
pH	No data available
Melting point/freezing point	ca. 0°C (ca. 32°F)
Initial boiling point and boiling range	ca. 100°C (ca. 32°F)

Flash point	No data available
Evaporation rate	Evap. rate of water = 1; 1
Flammability (solid, gas)	No data available
Upper flammability or explosive limits	No data available
Lower flammability or explosive limits	No data available
Vapor pressure	18 mm Hg at 20°C
Vapor density	For water in air = 1; 1
Relative density	Similar to water
Solubility(ies)	Water soluble
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	1.222 (mPa)(s) at 20°C

## 10. STABILITY AND REACTIVITY

10.1 Reactivity	No data available
10.2 Chemical stability	Stable in a closed container within label-specified storage temperature and expiration date.
10.3 Possibility of hazardous reactions	No data available
10.4 Conditions to avoid	No data available
10.5 Incompatible materials	Strong oxidizing agents and strong bases
10.6 Hazardous decomposition products	No data available

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Inhalation exposure	No data available
Oral exposure	No data available
Dermal exposure	No data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory or skin sensitization	No data available
Germ Cell mutagenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Acute toxicity	No data available

Carcinogenicity

IARC: None of the components are listed

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Additional information  
RTECS: No data available

## 12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity	No data available
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	No data available
12.5 Other adverse effects	No data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste disposal methods Contents

Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

### Contaminated packaging

Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

## 14. TRANSPORT INFORMATION

No Data Available.

## 15. REGULATORY INFORMATION

15.1 No data available.

## 16. OTHER INFORMATION

Classification codes: Acute Tox. 4 [Oral] : Acute toxicity (Oral), Category 4 Eye Irrit. 2 : Eye irritation, Category 2  
Sections changed compared with the previous version: 1,2,16 It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly. Labelling in accordance with Directive 67/548/EEC: Symbols: Xn Harmful R Phrases: R22 Harmful if swallowed. R36 Irritating to eyes. S Phrases: S22 Do not breathe dust. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Contains: May Grunwald stain Abbreviations and acronyms used: CEN: European Committee for Standardization. PPE: Personal protection equipment. Key literature references and sources for data: <http://eur-lex.europa.eu/homepage.html> <http://echa.europa.eu/> Regulation (EU) 2015/830. Regulation (EC) No 1907/2006. Regulation (EU) No 1272/2008. The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.