

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

Product code VB-3000
Product name VitroView™ H&E Stain Kit

Contact Manufacturer

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No
Aluminum potassium sulfate dodecahydrate (Hematoxylin solution only)	7784-24-9
Hematoxylin (Hematoxylin solution only)	517-28-2
Sodium iodate (Hematoxylin solution only)	7681-55-2
Glycerol (Hematoxylin solution only)	56-81-5
Eosin Y (Eosin solution only)	15086-94-9
Phloxine B (Eosin solution only)	18472-87-2
Ethanol (Eosin solution only)	64-17-5

3. HAZARDS IDENTIFICATION

GHS – Classification

Signal Word
DANGER



Health Hazards

Acute oral toxicity	Category 4
Skin irritation	Category 2
Eye irritation	Category 2 A

Specific target organ toxicity (single exposure) Respiratory system	Category 3
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Physical hazards

Not hazardous

Hazard Statements

H225 – Highly flammable liquid and vapor
H272 – May intensify fire; oxidizer
H302 - Harmful if swallowed
H315 - Causes skin irritation
H317 – May cause an allergic skin reaction
H319 - Causes serious eye irritation
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 - May cause respiratory irritation

Precautionary Statements

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P220 - Keep/Store away from clothing/ combustible materials.
P221 - Take any precaution to avoid mixing with combustibles.
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P261 - Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P264 - Wash skin 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 should not be allowed out of the workplace.
P280 - Wear protective gloves/ eye protection/ face protection
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing
P285 - In case of inadequate ventilation wear respiratory protection.
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position 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
P312 - Call a POISON CENTER or doctor/ physician if you feel unwell
P321 - Specific treatment (see supplemental first aid instructions on this label)
P330 - Rinse mouth
P332 + P313 - If skin irritation occurs: Get medical advice/ attention
P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 - If eye irritation persists: Get medical advice/ attention
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
P362 - Take off contaminated clothing and wash before reuse
P363 - Wash contaminated clothing before reuse.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P403 + P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up

P501 - Dispose of contents/ container to an approved waste disposal plant

Principle Routes of Exposure

Potential Health Effects

Eyes	Causes irritation
Skin	Causes irritation. Avoid contact with skin.
Inhalation	Harmful by inhalation.
Ingestion	Harmful if swallowed.

Specific effects

Carcinogenic effects	Not Applicable
Mutagenic effects	Not Applicable
Reproductive toxicity	Not Applicable
Sensitization	Not Applicable

Target Organ Effects	Skin Lungs
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HMIS

Health	2
Flammability	2
Reactivity	0
Physical	2

4. FIRST AID MEASURES

Skin contact	Wash off immediately with soap and plenty of water while removing all
Eye contact	contaminated clothes and shoes. Call a physician immediately. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air. Call a physician or poison control center immediately.
Notes to physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Special protective equipment for firefighters	Wear self-contained breathing apparatus and protective suit.
Special hazards arising from the substance or mixture	Carbon oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Use personal protection equipment. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Methods for 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.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system. See Section 12 for more information

7. HANDLING AND STORAGE

Handling	Always wear recommended Personal Protective Equipment. Avoid contact with skin, eyes or clothing. Remove all sources of ignition
Storage	Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Protect from sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

Chemical Name	OSHA PEL	OSH PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Ethanol	1,000 ppm 1,900 mg/m ³	1,000 ppm 1,900 mg/m ³	1,000.000000 ppm	1,000.000000 ppm
Glycerol	5 mg/m ³	15 mg/m ³	10 mg/m ³	No information available

Engineering measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday
Personal protective equipment	Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.
Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment
Respirator Recommendations, National Institute of Occupational	Up to 50 ppm

Safety and Health, U.S.

(APF = 10) Any air-purifying half-mask respirator with organic vapor cartridge(s) in combination with an N95, R95, or P95 filter. The following filters may also be used:

N99, R99, P99, N100, R100, P100.

(APF = 10) Any supplied-air respirator

Up to 125 ppm:

(APF = 25) Any supplied-air respirator operated in a continuous-flow mode

(APF = 25) Any powered air-purifying respirator with an organic vapor cartridge in combination with a high-efficiency particulate filter.

Up to 250 ppm:

(APF = 50) Any air-purifying full-facepiece respirator equipped with organic vapor cartridge(s) in combination with an N100, R100, or P100 filter.

(APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister having an N100, R100, or P100 filter.

(APF = 50) Any powered, air-purifying respirator with a tight-fitting facepiece and organic vapor cartridge(s) in combination with a high-efficiency particulate filter

(APF = 50) Any self-contained breathing apparatus with a full facepiece

(APF = 50) Any supplied-air respirator with a full facepiece
Emergency or planned entry into unknown concentrations or IDLH conditions:

(APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode

(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus

Escape:

(APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister having an N100, R100, or P100 filter. /Any appropriate escape-type, self-contained breathing apparatus.filter.

Impervious gloves. S24 - Avoid contact with skin. S36 – Wear suitable protective clothing.

Tight sealing safety goggles.

Impervious clothing.

Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin, eyes or clothing. Handle in accordance with good industrial hygiene and safety practice.

Hand protection**Eye protection****Skin and body protection****Hygiene measures****Environmental exposure
Controls**

Prevent product from entering drains

9. PHYSICAL AND CHEMICAL PROPERTIES**General Information****Form
Appearance**

Liquid

Odor	Alcohol	
Boiling point/range	No data available	No data available
Melting point/range	No data available	No data available
Flash point	No data available	No data available
Autoignition temperature	No data available	No data available
Oxidizing properties	No information available	
Water solubility	Soluble	

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions
Materials to avoid	Alkali metals, Oxidizing agents, Peroxides, Strong reducing agents, Powdered metals, Incompatibility: mixtures of iodates with finely divided aluminum, arsenic, copper, carbon, phosphorous (red or white) sulfur; hydrides of alkali and alkaline earth metals; sulfides of antimony, arsenic, copper or tin, metal cyanides, thiocyanates or impure manganese dioxide may react violently or explosively, either spontaneously (especially in the presence of moisture) or on initiation by heat, friction impact, sparks, or addition of sulfuric acid
Hazardous decomposition	
Products	No data available
Polymerization	No data available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Ethanol	= 30,000 mg/kg (Rat)/No data available	No data available	=30,000 mg/m ³ (Rat)/No data available
Glycerol	= 12,800 mg/kg (Rat)No data available	No data available	No data available
Phloxine B	= 8,400 mg/kg (Rat)No data available	No data available	No data available
Sodium iodide	= 505 mg/kg (mouse)	No data available	No data available

Principle Routes of Exposure

Potential Health Effects

Eyes	Causes irritation
Skin	Causes irritation
Inhalation	Harmful by inhalation
Ingestion	Harmful if swallowed
Carcinogenic effects	No information available.
Mutagenic effects	Phloxine B: Lungs, mutation in mammalian somatic cells.
Reproductive toxicity	Ethanol: Effects on Newborn: Apgar score (human only). Effects on Newborn: Other neonatal measures or effects. Effects on Newborn: Drug dependence. Phloxine B: Developmental Toxicity-rat-Oral Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Newborn: Growth statistics (e.g., reduced weight gain). Developmental Toxicity-mouse-Oral

	Specific Developmental Abnormalities: Craniofacial (including nose and tongue).
	Developmental Toxicity-mouse-Oral
Sensitization	Specific Developmental Abnormalities: Musculoskeletal system
Additional Information	No information available. Phloxine B: RTECS: LM5900000 Sodium iodide: RTECS: NN1400000
Target organ effects	Stomach (ethanol, sodium iodide); Kidney (glycerol; RTECS: MA8050000)

12. ECOLOGICAL INFORMATION

Ecotoxicity	Ethanol: Toxicity to fish. LC50 - Pimephales promelas (fathead minnow) - 14,200 mg/l -96 h Toxicity to daphnia and other aquatic invertebrates. LC50 - Ceriodaphnia dubia (water flea) - 5,012 mg/l - 48 h. NOEC - Daphnia magna (Water flea) - 9.6 mg/l - 9 d Toxicity to algae. EC50 - Chlorella vulgaris (Fresh water algae) - 275 mg/l - 72 h Phloxine B: Toxicity to fish LC50 - Gambusia affinis (Mosquito fish) - 97.7 mg/l - 96 h Sodium iodide: Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 220 mg/l - 96 h
Chronic aquatic toxicity (Ethanol)	Category 3.
Mobility	See log POW.
Biodegradation	Inherently biodegradable.
Bioaccumulation	No information available.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations

14. TRANSPORT INFORMATION

Not determined

15. REGULATORY INFORMATION

UNITED STATES:

TSCA:

This product is solely for research and development purposes only and may not be used, processed or distributed for a commercial purpose. It may only be handled by technically qualified individuals.

Prop 65 Listed Chemicals: No Prop 65 Chemicals.

No 313 Chemicals

CANADA:

DSL/NDSL: Not determined.

COMPONENT ETHANOL
WHMIS Classification D2B

EUROPEAN UNION:

PRODUCT RISK PHRASES: None assigned.

PRODUCT SAFETY PHRASES: Not applicable.

PRODUCT CLASSIFICATION: Not classified

16. OTHER INFORMATION

HMIS Rating 0-4: 2

FIRE: 3

HEALTH: *

REACTIVITY: 2

Abbreviations

N/A - Data is not applicable or not available

SARA - Superfund and Reauthorization Act

HMIS - Hazard Material Information System

WHMIS - Workplace Hazard Materials Information System

NTP - National Toxicology Program

OSHA - Occupational Health and Safety Administration

IARC - International Agency for Research on Cancer

PROP 65 - California Safe Drinking Water and Toxic Enforcement Act of 1986

EINECS - European Inventory of Existing Commercial Chemical Substances

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End of Safety Data Sheet