Material Safety Data Sheet

VWR® Eosin

1. Product and Preparation Information

Product Identifier	Product Use	Date Prepared	
VWR® Eosin	Routine hematoxylin and eosin staining	August, 2009	
Synonym / Chemical Name		**VWR Product #** 95057-848	
Denatured ethyl alcohol, primary aliphatic alcohol, disodium eosine, eosine yellowish			
Manufacturer/ Preparer	**Distributor**	**Emergency Contact**	
Leica Biosystems Richmond, Inc. 5205 Route 12 Richmond, IL 60071	VWR International 1310 Goshen Parkway West Chester, PA 19380 800.932.5000	Chemtrec USA and Canada Chemtrec International Canutec	800.424.9300 703.527.3887 613.996.6666

2. Preventive Measures

Personal Protection

NFPA

US DOT

Canadian WHMIS

B2

D1B

Personal Protection

Eyes	Safety glasses
Body	Laboratory coat
Respiratory	NIOSH/MSHA approved respirator when ventilation is inadequate
Hands	Latex or nitrile gloves

Emergency Overview

Warning! Highly flammable liquid and vapor, vapor may cause flash fire. Cannot be made non-poisonous. May be fatal or cause blindness if swallowed. Contains material that may cause blood, nervous system, reproductive system, liver, gastrointestinal tract, respiratory tract, skin and eye damage. Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. For In Vitro Diagnostic Use. For Laboratory Use.

Engineering Controls

General mechanical ventilation or laboratory fume hood. Ensure that eyewash stations and quick drench showers are proximal to the workstation or tissue processor.

Handling and Storage

Dissipate static electricity during transfer by grounding and bonding containers and equipment. If air concentrations may exceed lower explosive limit, use explosion-proof equipment. Keep containers closed and out of reach of children. Do not use near open flames or sparks. Store at room temperature. Store in flammable liquid safety cabinet when possible.

Small Spill and Leak

Dilute with water and mop, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill and Leak

Keep away from heat and ignition sources. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Avoid skin and eye contact. Prevent entry into sewers, basements or confined areas: dike if needed. Eliminate all ignition sources. Be careful that airborne concentrations do not exceed published exposure and lower explosive limits.

Waste Disposal

Unused Product – Dispose as a regulated hazardous waste. *Spent product or spill clean up* - Follow all federal, state, local and provincial regulations.

3. Hazardous Ingredients

Hazardous Ingredient	% wt.	CAS Number	LD50	LC50	TDG PIN
Eosin Y Powder	<1	17372-87-1	2,344 mg/kg oral mouse	NA	
Acetic acid	<5	64-19-7	1,060 mg/kg acute dermal rat	5,620 ppm/1hr inhalation mouse	
Ethanol	<80	64-17-5	7,060 mg/kg oral rat 3,450 mg/kg oral mouse	20,000 ppm/10 hr. inhalation rat 39 gm/m³/4hr inhalation mouse	
Isopropanol	<5	67-63-0	5,045 mg/kg oral rat 3,600 mg/kg oral mouse	72,600 mg/m³ inhalation rat 53,000 mg/m³ inhalation mouse	
Methanol	<5	67-56-1	5,600 mg/kg oral rat 7,300 mg/kg oral mouse	64,000 ppm/4 hr. inhalation rat 81,000 mg/m³/14hr rabbit	

4. First Aid Measures

Eye Contact Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

Skin Contact Remove contaminated clothing immediately. Wash the affected areas with soap or mild detergent and large amounts of water for at least 15 minutes.

Inhalation Move individual to fresh air immediately. If breathing is difficult, give oxygen. If breathing has stopped, administer artificial respiration. Get medical attention.

Ingestion Never give anything by mouth to an unconscious person. Induce vomiting. Give no more than 2 glasses of water. Get medical attention immediately.

5. Physical Data

Physical State	Odor and Appearance	Odor Threshold (ppm)	Solubility	Auto-ignition Temp
Liquid	Fragrant odor	180 ppm Ethanol	Easily soluble in water	685° F (362° C)
Vapor Pressure	**Vapor Density**	**Evaporation Rate**	**Boiling Point**	**Flash Point CC**
97mmHg @ 20C (MeOH)	1.88 (air-1)	N/A	173° F (78.33° C)	55° F (12.7° C)
pH	**Specific Gravity**	**Coeff. Water/oil Dist.**	**Freezing Point**	**Flammable Limits**
4-5 – 5.5	0.79 Water=1	N/A	-65.4° F (-54.1° C)	LEL – 3.3% UEL – 19%

6. Fire and Explosion

Flammability	Conditions	Fl. Pt - Auto Ignition - Flammable Limits
Flammable Liquid IB (Canada B2)	Excessive heat, sparks and open flames.	See Physical Data above

Explosivity

Not explosive under normal conditions of use. Vapors are heavier than air and may settle in low areas. Vapors may travel long distances to an ignition source and flash back explosively. Flame may be invisible. Not sensitive to impact. Probably will not accumulate static charge due to high electrical conductivity, however proper grounding during transfer is recommended (NFPA 77).

Hazardous Combustion Products	Means of Extinction
CO, CO_2, NO, NO_2, SO_2, SO_3	Small Fire – Use DRY chemical powder. Large Fire – Use alcohol-resistant foam, water spray or fog

7. Reactivity

Stability
Product is stable under normal conditions of use.

Hazardous Decomposition Products
CO from incomplete combustion

Conditions of Reactivity	Hazardous Polymerization	Incompatibility
NA	No hazardous polymerization.	Slightly reactive with oxidizing materials and acids.

8. Toxicological Properties

Routes of Entry Ingestion and inhalation **Target Organs** Liver, respiratory tract, reproductive and nervous systems

Effects of Acute Exposure

Eye Slightly hazardous in case of eye contact (irritant)

Skin Slightly hazardous (irritant, corrosive). Skin inflammation is characterized by itching, scaling, reddening or occasionally blistering.

Absorption NA

Inhalation Slightly hazardous in case of inhalation

Ingestion Hazardous in case of ingestion.

Effects of Chronic Exposure

Repeated exposure by inhalation may cause system poisoning, impaired vision or blindness. Inhalation may worsen conditions such as emphysema or bronchitis. Repeated skin exposure may cause defatting of the skin.

Carcinogenic Effects

Ethanol and methanol are not classified as a human carcinogen. Isopropanol is classified as Group 3 (not classifiable) by IARC.

Reproductive Toxicity

Ethyl alcohol has proven to be toxic to blood, nervous system, reproductive system, liver, gastrointestinal tract, respiratory tract, skin and eyes.

Teratogenic and Mutagenic Effects NA

Exposure Limits	OSHA PEL TWA	ACGIH TLV TWA	STEL	TWAEV (Ont.)	STE V (Ont.)	CEV (Ont.)
Ethanol	1,900 ppm	1,000 ppm	NA	1,000 ppm	NA	NA
Isopropanol	980 mg/m³	400 ppm	500 ppm	200 ppm	400 ppm	NA
Methanol	260 ppm	200 ppm	250 ppm	200 ppm	250 ppm	NA
Acetic acid	25 mg/m³	10 ppm 15 ppm C	15 ppm	10 ppm	15 ppm	NA
Eosin Y powder	NA	NA	NA	NA	NA	NA

9. Regulatory Information

OSHA Hazardous Irritant, poison, flammable	**Cal. Prop. 65** Not Listed	**Canadian WHMIS** B2, D1B	**RCRA Regulated** D001, F003
SARA 302/304 Not Listed	**SARA 313** MeOH, IPA Listed	**CERCLA 102A** MeOH Listed	**RQ** 5000 lbs. MeOH
CWA 307 Acetic acid listed	**CWA 311** Not Listed	**CAA 112 Release Prevention** MeOH Listed	**CAA 112 Reg. Flam. Substance** Not Listed
CAA 112 Reg. Toxic Substance Not Listed	**TSCA Inventory** All ingredients Listed	**EEC Flammability** R11 – Highly Flammable	**CEPA DSL** All Ingredients Listed
Proper US DOT Shipping Name Alcohols, N.O.S. (Ethanol, Isopropanol, Methanol), UN1987	**TDG Classification** Class 3 Flammable Liquid	**IATA Classification** Class 3 Flammable Liquid	**Limited Quantity** 49CFR & IMDG only

The information provided above is based upon unused product. Product characteristics may change after processing, requiring further classification.

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