

ACC# 94628

Print Date: 5/06/08
Revision Date: 5/06/2008
Version: 1

Material Safety Data Sheet

Modified Harris Hematoxylin

Section 1 - Chemical Product and Company Identification

MSDS Name:

Modified Harris Hematoxylin

Catalog Numbers:

72704, 72711

Synonyms:

None Known.

Company Identification:

Richard Allan Scientific
4481 Campus Drive
Kalamazoo, MI 49008

Company Phone Number:

800-522-7270

Emergency Phone Number:

800-424-9300

CHEMTREC Phone Number, US:

(800) 424-9300

CHEMTREC Phone Number, Europe:

(202) 483-7616

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent	EINECS/ ELINCS	Hazard Symbols	Risk Phrases
7732-18-5	Deionized Water	83-87	231-791-2		
7784-25-0	Ammonium alum	5-9	232-055-3		
64-17-5	Ethyl alcohol	3-4	200-578-6	F	11
64-19-7	Acetic acid	1-2	200-580-7		
517-28-2	Hematoxylin	<1.0	208-237-3		
7681-55-2	Sodium iodate	<1.0	231-672-5		
67-56-1	Methyl alcohol	<1	200-659-6	F T	11 23/24/25 39/23/24/25
67-63-0	Isopropyl alcohol	<1.0	200-661-7	F XI	11 36 67
78491-02-8	Diazolidinyl urea	<0.1	278-928-2		

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Modified Harris Hematoxylin**Section 3 - Hazards Identification****EMERGENCY OVERVIEW***Appearance: Purple liquid**Caution! May cause eye, skin, and respiratory tract irritation. The toxicological properties of this material have not been fully investigated.**Target Organs: None known***Potential Health Effects****Eye:**

May cause eye irritation.

Skin:

May cause skin irritation. May be harmful if absorbed through the skin. May cause an allergic reaction in certain individuals.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.

Inhalation:

May cause respiratory tract irritation. May be harmful if inhaled.

Chronic:

Chronic exposure to acetic acid may cause erosion of dental enamel, bronchitis, eye irritation, darkening of the skin, and chronic inflammation of the respiratory tract. Acetic acid can cause occupational asthma. One case of a delayed asthmatic response to glacial acetic acid has been reported in a person with bronchial asthma. Skin sensitization to acetic acid is rare, but has occurred.

Section 4 - First Aid Measures**Eyes:**

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively.

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As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

Use water spray, dry chemical, carbon dioxide, or chemical foam.

Autoignition Temperature:

Not available

Explosion Limits:

Lower: Not available Upper: Not available

Flash Point:

Not available

NFPA Rating:

(estimated) Health: 1; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures**General Information:**

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage**Handling:**

Avoid breathing dust, mist, or vapor. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation.

Storage:

Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection**Engineering Controls:**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Deionized Water	None listed	None listed	None listed

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Ammonium alum	2 mg/m3 TWA (as Al) (listed under Aluminum, soluble salts)	2 mg/m3 TWA (as Al) (listed under Aluminum, soluble salts)	None listed
Ethyl alcohol	1000 ppm TWA	1000 ppm TWA; 1900 mg/m3 TWA 3300 ppm IDLH (10% LEL)	1000 ppm TWA; 1900 mg/m3 TWA;
Acetic acid	10 ppm TWA;15 ppm STEL	10 ppm TWA; 25 mg/m3 TWA 50 ppm IDLH	10 ppm TWA; 25 mg/m3 TWA;
Hematoxylin	None listed	None listed	None listed
Sodium iodate	None listed	None listed	None listed
Methyl alcohol	200 ppm TWA;250 ppm STEL;Skin - potential significant contribution to overall exposure by the cutaneous route	200 ppm TWA; 260 mg/m3 TWA 6000 ppm IDLH	200 ppm TWA; 260 mg/m3 TWA;
Isopropyl alcohol	200 ppm TWA;400 ppm STEL	400 ppm TWA; 980 mg/m3 TWA 2000 ppm IDLH (10% LEL)	400 ppm TWA; 980 mg/m3 TWA;
Diazolidinyl urea	None listed	None listed	None listed

OSHA Vacated PELs

Ammonium alum 2 mg/m3 TWA (as Al. listed under Aluminum) (listed under Aluminum, soluble salts)
Ethyl alcohol: 1000 ppm TWA; 1900 mg/m3 TWA
Acetic acid: 10 ppm TWA; 25 mg/m3 TWA
Methyl alcohol: 200 ppm TWA; 260 mg/m3 TWA
Isopropyl alcohol: 400 ppm TWA; 980 mg/m3 TWA

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: Purple

Odor: Faint sweet odor

pH: No information found

Vapor Pressure: 32 mm Hg

Vapor Density: 1.1 (Air=1)

Evaporation Rate: 0.3 (Butyl acetate=1)

Viscosity: No information found

Boiling Point: 98.3 - 158.9°C

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Freezing/Melting Point: No information found
Decomposition Temperature: No information found
Solubility in water: Soluble.
Specific Gravity/Density: 1.052 @ 21°C
Molecular Formula: Solution
Molecular Weight: No information found

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, excess heat

Incompatibilities with Other Materials

Oxidizing agents, amines, carbonates

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000
CAS# 7784-25-0 unlisted
CAS# 64-17-5: KQ6300000
CAS# 64-19-7: AF1225000
CAS# 517-28-2: MH7875000
CAS# 7681-55-2: NN1400000
CAS# 67-56-1: PC1400000
CAS# 67-63-0: NT8050000
CAS# 78491-02-8: YS2717000

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LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 7784-25-0:

No information found

CAS# 64-17-5:

Draize test, rabbit, eye: 500 mg Severe

Draize test, rabbit, eye: 500 mg/24H Mild

Draize test, rabbit, skin: 20 mg/24H Moderate

Inhalation, mouse: LC50 = 39 gm/m³/4H

Inhalation, rat: LC50 = 20000 ppm/10H

Oral, mouse: LD50 = 3450 mg/kg

Oral, rabbit: LD50 = 6300 mg/kg

Oral, rat: LD50 = 7060 mg/kg

Oral, rat: LD50 = 9000 mg/kg.

CAS# 64-19-7:

Draize test, rabbit, skin: 50 mg/24H Mild

Inhalation, mouse: LC50 = 5620 ppm/1H

Oral, rat: LD50 = 3310 mg/kg

Skin, rabbit: LD50 = 1060 uL/kg.

CAS# 517-28-2:

No information found

CAS# 7681-55-2:

Oral, mouse: LD50 = 505 mg/kg.

CAS# 67-56-1:

Draize test, rabbit, eye: 40 mg Moderate

Draize test, rabbit, eye: 100 mg/24H Moderate

Draize test, rabbit, skin: 20 mg/24H Moderate

Inhalation, rabbit: LC50 = 81000 mg/m³/14H

Inhalation, rat: LC50 = 64000 ppm/4H

Oral, mouse: LD50 = 7300 mg/kg

Oral, rabbit: LD50 = 14200 mg/kg

Oral, rat: LD50 = 5600 mg/kg

Skin, rabbit: LD50 = 15800 mg/kg.

CAS# 67-63-0:

Draize test, rabbit, eye: 100 mg Severe

Draize test, rabbit, eye: 10 mg Moderate

Draize test, rabbit, eye: 100 mg/24H Moderate

Draize test, rabbit, skin: 500 mg Mild

Inhalation, mouse: LC50 = 53000 mg/m³

Inhalation, rat: LC50 = 16000 ppm/8H

Inhalation, rat: LC50 = 72600 mg/m³

Oral, mouse: LD50 = 3600 mg/kg

Oral, mouse: LD50 = 3600 mg/kg

Oral, rabbit: LD50 = 6410 mg/kg

Oral, rat: LD50 = 5045 mg/kg

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 7784-25-0: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 64-17-5

ACGIH: Not listed

California: Not listed

NTP: Not listed

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IARC: Group 1 carcinogen
CAS# 64-19-7: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 517-28-2: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 7681-55-2: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 67-56-1: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 67-63-0: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 78491-02-8: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology:

No information found

Teratogenicity:

Acetic acid treatment of suckling rats (via maternal administration) was associated with abnormalities of behavioral testing. No teratogenic effects were observed among the offspring of mice, rats, or rabbits that had been given very large doses of apple cider vinegar (containing acetic acid) during pregnancy.

Reproductive:

No information found

Mutagenicity:

No information found

Neurotoxicity:

No information found

Other:

The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

Section 12 - Ecological Information

No information found

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Part 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P Series Wastes

None of the components are on this list.

RCRA U Series Wastes

CAS# 67-56-1: waste number U154 (Ignitable waste).

Section 14 - Transport Information**US DOT****Canadian TDG****Proper Shipping Name:** Not Regulated

Not Regulated

Hazard Class:**UN Number:****Packing Group:**

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USA RQ: CAS# 64-19-7: 5000 lb final RQ; 2270 kg final RQ

USA RQ: CAS# 67-56-1: 5000 lb final RQ; 2270 kg final RQ

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 7732-18-5 is listed on the TSCA Inventory.
CAS# 7784-25-0 is listed on the TSCA Inventory.
CAS# 64-17-5 is listed on the TSCA Inventory.
CAS# 64-19-7 is listed on the TSCA Inventory.
CAS# 517-28-2 is listed on the TSCA Inventory.
CAS# 7681-55-2 is listed on the TSCA Inventory.
CAS# 67-56-1 is listed on the TSCA Inventory.
CAS# 67-63-0 is listed on the TSCA Inventory.
CAS# 78491-02-8 is listed on the TSCA Inventory.

Health and Safety Reporting List

CAS# 67-63-0: Effective 12/15/86, Sunset 12/15/96

Chemical Test Rules

CAS# 67-63-0: 40 CFR 799.2325

TSCA Section 12b

None of the components are on this list.

TSCA Significant New Use Rule (SNUR)

None of the components are on this list.

CERCLA Hazardous Substances and corresponding RQs

CAS# 64-19-7: 5000 lb final RQ; 2270 kg final RQ
CAS# 67-56-1: 5000 lb final RQ; 2270 kg final RQ

SARA Section 302 Extremely Hazardous Substances

None of the components are on this list.

SARA Hazard Categories

CAS# 64-17-5: immediate, delayed, fire.
CAS# 64-19-7: immediate, delayed, fire.
CAS# 7681-55-2: immediate, fire.
CAS# 67-56-1: immediate, fire.
CAS# 67-63-0: immediate, delayed, fire.

SARA Section 313

Methyl alcohol is not at a high enough concentration to be reportable under Section 313.
Isopropyl alcohol is not at a high enough concentration to be reportable under Section 313.

Clean Air Act - Hazardous Air Pollutants (HAPs)

CAS# 67-56-1 is listed as a hazardous air pollutant (HAP).

Clean Air Act - Class 1 Ozone Depleters

None of the components are on this list.

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Clean Air Act - Class 2 Ozone Depletors

None of the components are on this list.

Clean Water Act - Hazardous Substances

CAS# 64-19-7 is listed as a Hazardous Substance under the CWA.

Clean Water Act - Priority Pollutants

None of the components are on this list.

Clean Water Act - Toxic Pollutants

None of the components are on this list.

OSHA - Highly Hazardous

None of the components are on this list.

OSHA - Specifically Regulated Chemicals

None of the components are on this list.

US State

State Right to Know

Ammonium alum can be found on the following state Right-to-Know lists: California, (listed as Aluminum, soluble salts), Pennsylvania, (listed as Aluminum, soluble salts), Minnesota, (listed as Aluminum, soluble salts).

Ethyl alcohol can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

Acetic acid can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

Methyl alcohol can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

Isopropyl alcohol can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

No information found

California Prop 65

None of the components are on this list.

California No Significant Risk Level

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

European/International Regulations

European Labelling in Accordance with EC Directives:

Hazard Symbols: None listed

Risk Phrases: None listed

Safety Phrases: S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

No information found

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United Kingdom Occupational Exposure Limits

No information found

United Kingdom Maximum Exposure Limits

No information found

Canadian DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.
CAS# 7784-25-0 is listed on Canada's DSL List.
CAS# 64-17-5 is listed on Canada's DSL List.
CAS# 64-19-7 is listed on Canada's DSL List.
CAS# 517-28-2 is listed on Canada's DSL List.
CAS# 7681-55-2 is listed on Canada's DSL List.
CAS# 67-56-1 is listed on Canada's DSL List.
CAS# 67-63-0 is listed on Canada's DSL List.
CAS# 78491-02-8 is listed on Canada's DSL List.

Canadian WHMIS Classifications

This product has a WHMIS classification of D2B.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 7784-25-0 (listed as Aluminum, soluble salts) is listed on the Canadian Ingredient Disclosure List.
CAS# 64-17-5 is listed on the Canadian Ingredient Disclosure List.
CAS# 64-19-7 is listed on the Canadian Ingredient Disclosure List.
CAS# 67-56-1 is listed on the Canadian Ingredient Disclosure List.
CAS# 67-63-0 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Other Information

No information found
MSDS Creation Date: May 6, 2008
Revision Date: May 6, 2008

Revisions were made in Sections:

3, 6, 9, 10, 11, 14

This MSDS is intended for review and guidance in the receipt, storage, handling, use and disposal of product purchased from us, and for no other purpose. Use this product only as directed and in accordance with applicable instructions and warnings provided with the product. Please consult your institution's policies regarding use of this product. If you have obtained this MSDS other than in connection with the supply of this product from us, this MSDS should be consulted for general information only, and should not be relied upon for any purpose. As with the use of all hazardous materials, you should in all instances follow the guidance of the MSDS provided or available with the specific product purchased.