

ACC# 94627

Print Date: 5/06/08
Revision Date: 5/06/2008
Version: 2**Material Safety Data Sheet**
RAS Gill 3 Hematoxylin**Section 1 - Chemical Product and Company Identification****MSDS Name:**

RAS Gill 3 Hematoxylin

Catalog Numbers:

72604, 72611

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	Water	65-70	231-791-2		
107-21-1	Ethylene glycol	22-28	203-473-3		
10043-01-3	Aluminum sulfate	4-7	233-135-0		
517-28-2	Hematoxylin dye	<1.0	208-237-3		
7681-55-2	Iodic acid (hio3), sodium salt	<1.0	231-672-5		
78491-02-8	Diazolidinyl urea	<1.0	278-928-2		
64-19-7	Acetic acid	<1.0	200-580-7		

Material Safety Data Sheet
RAS Gill 3 Hematoxylin**Section 3 - Hazards Identification****EMERGENCY OVERVIEW**

Appearance: Purple liquid

Warning! Causes eye, skin, and respiratory tract irritation. May be harmful if swallowed or absorbed through the skin. May cause kidney damage. May cause central nervous system effects.

Target Organs: Kidneys, Central nervous system, Eyes, Skin, Mucous membranes

Potential Health Effects**Eye:**

Causes eye irritation. May cause chemical conjunctivitis.

Skin:

Causes skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May be harmful if absorbed through the skin.

Ingestion:

The lethal dose in adult humans for ethylene glycol is about 100 ml (1/3 cup). Swallowing may cause nausea, vomiting or diarrhea. Excessive exposure may cause CNS effects, cardiopulmonary effects (metabolic acidosis), and kidney failure.

Inhalation:

Causes respiratory tract irritation. May cause effects similar to those described for ingestion. If ethylene glycol is heated or misted in work areas that are poorly ventilated, vapor/mist may accumulate and cause respiratory irritation and symptoms such as headache and nausea.

Chronic:

May cause kidney injury. 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. Repeated excessive exposure to ethylene glycol may cause irritation of the upper respiratory tract. In humans, effects have been reported on the central nervous system, including nystagmus (involuntary, rapid, rhythmic movement of the eyeball).

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:

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

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.

ACC# 94627



Print Date: 5/06/08
Revision Date: 5/06/2008
Version: 2

Material Safety Data Sheet

RAS Gill 3 Hematoxylin

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

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: 2; 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:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage:

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

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 general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Material Safety Data Sheet

RAS Gill 3 Hematoxylin

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None listed	None listed	None listed
Ethylene glycol	100 mg/m3 Ceiling (aerosol only)	None listed	None listed
Aluminum sulfate	2 mg/m3 TWA (as Al) (listed under Aluminum, soluble salts)	2 mg/m3 TWA (as Al) (listed under Aluminum, soluble salts)	None listed
Hematoxylin dye	None listed	None listed	None listed
Iodic acid (hio3), sodium salt	None listed	None listed	None listed
Diazolidinyl urea	None listed	None listed	None listed
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;

OSHA Vacated PELs

Aluminum sulfate 2 mg/m3 TWA (as Al. listed under Aluminum) (listed under Aluminum, soluble salts)
Acetic acid: 10 ppm TWA; 25 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 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: 48.9°C

Freezing/Melting Point: No information found

Decomposition Temperature: No information found

Solubility in water: Soluble.

Specific Gravity/Density: 1.052 @ 21°C

ACC# 94627



Print Date: 5/06/08
Revision Date: 5/06/2008
Version: 2

Material Safety Data Sheet
RAS Gill 3 Hematoxylin

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

Incompatibilities with Other Materials

Strong oxidizing agents, strong acids, isocyanates, aliphatic amines, caustics

Hazardous Decomposition Products

Carbon monoxide, oxides of sulfur, carbon dioxide, aluminum oxide

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000
CAS# 107-21-1: KW2975000
CAS# 10043-01-3: BD1700000
CAS# 517-28-2: MH7875000
CAS# 7681-55-2: NN1400000
CAS# 78491-02-8: YS2717000
CAS# 64-19-7: AF1225000

Material Safety Data Sheet
RAS Gill 3 Hematoxylin

LD50/LC50:

CAS# 7732-18-5:

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

CAS# 107-21-1:

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

Draize test, rabbit, eye: 100 mg/1H Mild

Draize test, rabbit, eye: 0.012 ppm/3D

Draize test, rabbit, eye: 1440 mg/6H Moderate

Oral, mouse: LD50 = 5500 mg/kg

Oral, rat: LD50 = 4700 mg/kg

Skin, rabbit: LD50 = 9530 uL/kg.

CAS# 10043-01-3:

Draize test, rabbit, eye: 10 mg/24H Severe

Oral, mouse: LD50 = 6207 mg/kg.

CAS# 517-28-2:

No information found

CAS# 7681-55-2:

Oral, mouse: LD50 = 505 mg/kg.

CAS# 78491-02-8:

Oral, mouse: LD50 = 3573 mg/kg

Oral, rat: LD50 = 2600 mg/kg

Skin, rabbit: LD50 = >2 gm/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.

Carcinogenicity:

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

CAS# 107-21-1: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 10043-01-3: 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# 78491-02-8: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 64-19-7: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology:

No information available.

Teratogenicity:

An expert panel convened by the NTP's Center for the Evaluation of Risks to Human Reproduction concluded 2/13/03 that developmental and reproductive risks stemming from exposure to the chemicals propylene glycol and ethylene glycol are negligible. 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. Acetic acid treatment of suckling rats (via maternal administration) was associated with abnormalities of behavioral testing.

Reproductive:

Acetic acid effects on Fertility: male index, itt-rat TDLo=400 mg/kg.

Mutagenicity:

Sister Chromatid Exchange: Human, Lymphocyte = 5 mmol/L.; Unscheduled DNA Synthesis:

Administration onto the skin, mouse = 79279 ug/kg.; Cytogenetic Analysis: Hamster, Ovary = 10 mmol/L.

ACC# 94627



Print Date: 5/06/08
Revision Date: 5/06/2008
Version: 2

Material Safety Data Sheet

RAS Gill 3 Hematoxylin

Neurotoxicity:

No information available.

Other:

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

None of the components are on this list.

Section 14 - Transport Information

US DOT

Canadian TDG

Proper Shipping Name: Not Regulated

Not Regulated

Hazard Class:

UN Number:

Packing Group:

USA RQ: CAS# 107-21-1: 5000 lb final RQ; 2270 kg final RQ

USA RQ: CAS# 10043-01-3: 5000 lb final RQ; 2270 kg final RQ

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

Material Safety Data Sheet
RAS Gill 3 Hematoxylin**Section 15 - Regulatory Information****US Federal****TSCA**

CAS# 7732-18-5 is listed on the TSCA Inventory.
CAS# 107-21-1 is listed on the TSCA Inventory.
CAS# 10043-01-3 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# 78491-02-8 is listed on the TSCA Inventory.
CAS# 64-19-7 is listed on the TSCA Inventory.

Health and Safety Reporting List

None of the components are on this list.

Chemical Test Rules

None of the components are on this list.

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# 107-21-1: 5000 lb final RQ; 2270 kg final RQ
CAS# 10043-01-3: 5000 lb final RQ; 2270 kg final RQ
CAS# 64-19-7: 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# 107-21-1: immediate, delayed.
CAS# 10043-01-3: immediate, delayed.
CAS# 7681-55-2: immediate, fire.
CAS# 64-19-7: immediate, delayed, fire.

SARA Section 313

This material contains Ethylene glycol (CAS# 107-21-1, 22-28%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.

Clean Air Act - Hazardous Air Pollutants (HAPs)

CAS# 107-21-1 is listed as a hazardous air pollutant (HAP).

Clean Air Act - Class 1 Ozone Depleters

None of the components are on this list.

Clean Air Act - Class 2 Ozone Depleters

None of the components are on this list.

Clean Water Act - Hazardous Substances

CAS# 10043-01-3 is listed as a Hazardous Substance under the CWA.
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.

Material Safety Data Sheet
RAS Gill 3 Hematoxylin

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

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

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

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

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.

European/International Regulations

European Labelling in Accordance with EC Directives:

Hazard Symbols: XN

Risk Phrases: R 22 Harmful if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases: S 23 Do not inhale gas/fumes/vapour/spray.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

No information found

United Kingdom Occupational Exposure Limits

No information found

United Kingdom Maximum Exposure Limits

No information found

Canadian DSL/NDL

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 107-21-1 is listed on Canada's DSL List.

CAS# 10043-01-3 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# 78491-02-8 is listed on Canada's DSL List.

Material Safety Data Sheet

RAS Gill 3 Hematoxylin

CAS# 64-19-7 is listed on Canada's DSL List.

Canadian WHMIS Classifications

This product has a WHMIS classification of D1B, 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# 107-21-1 is listed on the Canadian Ingredient Disclosure List.

CAS# 10043-01-3 (listed as Aluminum, soluble salts) is listed on the Canadian Ingredient Disclosure List.

CAS# 64-19-7 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Other Information

Color information has been
MSDS Creation Date: May 6, 2008
Revision Date: May 6, 2008

Revisions were made in Sections:

9, 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.