



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation Hematoxylin Stain Solution, Modified Harris Formulation, Mercury Free Nuclear Stain for General Histology and Cytology

Product Number 3530

Other Identifying Product Numbers 3530-1, 3530-16, 3530-32, 3530-5

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company Ricca Chemical Company

Address 412 West Fork Drive

Arlington, TX 76012 USA

Telephone 888-467-4222

1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA) 800-424-9300

CHEMTREC (International) 1+ 703-527-3887

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

Hazard Class	Category	Hazard Statements	Precautionary Statements
Flammable Liquids	Category 4	H227	P210,P280,P370+P378,P403,P501
Reproductive Toxicity	Category 1B	H360	P201,P202,P280,P308+P313,P405, P501

2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

NOTE: Hazard statements may be combined on labels to improve clarity and readability.

Hazard Number	Hazard Statement
H227	Combustible liquid
H360	May damage fertility or the unborn child

Precautionary Statements:

NOTE: Precautionary statements may be combined or consolidated on labels to improve clarity and readability.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

Prevention

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves and eye protection.

Response

Precautionary Number	Precautionary Statement
P308+P313	If exposed or concerned: Get medical advice or attention.
P370+P378	In case of fire: Use dry chemical, foam, or carbon dioxide to extinguish.

Storage

Precautionary Number	Precautionary Statement
P403	Store in a well-ventilated place.
P405	Store locked up.

Disposal

Precautionary Number	Precautionary Statement
P501	Dispose of contents/container to suitable waste stream in accordance with local, state, federal, and international regulations.

2.3. Hazards not Otherwise Classified

No other hazards identified.

2.4. Ingredients of Unknown Acute Toxicity

6.4 percent of this mixture consists of ingredient(s) of unknown acute oral and inhalation toxicity. 4.2 percent of this mixture consists of ingredient(s) of unknown acute dermal toxicity.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 3: Composition / Information on Ingredients

3.1. Components of Mixture

Chemical Name (IUPAC)	Common Name and Synonyms	CAS Number	Weight%
water	Water	7732-18-5	89.73
aluminum azanium disulfate dodecahydrate	Aluminum Ammonium Sulfate Dodecahydrate; Sulfuric acid, aluminum ammonium salt (2:1:1), dodecahydrate	7784-26-1	5.87
ethanol	Ethyl Alcohol	64-17-5	3.68
(6aS,11bR)-7,11b-dihydro-6H-indeno[2,1-c]chromene-3,4,6a,9,10-pentol	Hematoxylin	517-28-2	0.49
methanol	Methyl Alcohol	67-56-1	0.18
potassium iodate	Potassium Iodate; Iodic acid (HIO ₃), potassium salt	7758-05-6	< 0.1

SECTION 4: First-Aid Measures

4.1. Description of Necessary Measures

Eye Contact: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.

Ingestion: Dilute immediately with water or milk. Induce vomiting. Call a physician.

Inhalation: Not expected to require first aid. If necessary, remove to fresh air.

Skin Contact: Results in drying and cracking which can lead to secondary infections and dermatitis.

4.2. Most Important Symptoms and Effects, Acute and Delayed

May damage fertility or the unborn child May cause irritation to the eyes. May be harmful if swallowed. Contact may result in allergic reaction. Wash areas of contact with plenty of water. If ingested, dilute with water, induce vomiting then call a physician. EYE CONTACT: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. SKIN CONTACT: Results in drying and cracking which can lead to secondary infections and dermatitis.

4.3. Immediate Medical Attention or Special Treatment Needed

Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops. Dilute immediately with water or milk. Induce vomiting. Call a physician.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

In case of fire: Use dry chemical, foam, or carbon dioxide to extinguish. Use any means suitable for extinguishing surrounding fire.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

5.2. Specific Hazards Arising from the Substance or Mixture in a Fire

Combustible liquid Not considered to be a fire or explosion hazard.

5.3. Special Protective Equipment and Precautions for Firefighters

Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Absorb with suitable material and dispose of in accordance with local regulations.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store in a well-ventilated place. Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Store at controlled room temperature, 15 - 30°C.

SECTION 8: Exposure Controls / Personal Protection

8.1. Exposure Limits

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

U.S. OSHA - Permissible Exposure Limits (PEL) - Time Weighted Averages (TWA)

Chemical Name	CAS Number	Exposure Limit
Ethyl Alcohol	64-17-5	1000 ppm TWA; 1900 mg/m ³ TWA
Methyl Alcohol	67-56-1	200 ppm TWA; 260 mg/m ³ TWA

U.S. OSHA - Permissible Exposure Limits (PEL) - Ceiling Limits

No limits found.

U.S. OSHA - Permissible Exposure Limits (PEL) - Short Term Exposure Limits (STEL)

No limits found.

U.S. OSHA - Specifically Regulated Chemicals

No limits found.

ACGIH - Threshold Limit Values - Ceilings (TLV-C)

No limits found.

ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)

Chemical Name	CAS Number	Exposure Limit
Ethyl Alcohol	64-17-5	1000 ppm STEL
Methyl Alcohol	67-56-1	250 ppm STEL

ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Chemical Name	CAS Number	Exposure Limit
Methyl Alcohol	67-56-1	200 ppm TWA

8.2. Engineering Controls

No specific controls are needed. Normal room ventilation is adequate.

8.3. Individual Protective Measures and Personal Protective Equipment

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Physical State:	liquid
Color:	Dark purple
Odor:	Data not available.
Odor Threshold:	Data not available.
Melting/Freezing Point:	Approximately 0°C
Boiling Point/Range:	Approximately 98°C
Flammability:	Data not available.
Flammability/Explosive Limits:	Data not available.
Flash Point:	61 °C (calculated)
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	Data not available.
pH:	2 - 3
Kinematic Viscosity:	Data not available.
Solubility:	miscible
Vapor Pressure:	Data not available.
Evaporation Rate:	Data not available.
Relative Density:	1.02
Relative Vapor Density:	Data not available.
Particle Characteristics:	Data not available.
Partition Coefficient n-octanol/water, log	Data not available.

NOTE: Flash point was calculated according to the method of Gmehling and Rasmussen (Ind. Eng. Chem. Fundament, 21, 186, (1982)), as allowed by GHS Rev 7, section 2.6.4.2.3.

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Oxidizers, Platinum, Sodium, Potassium Dioxide, Bromine Pentafluoride, acetyl Bromide, Acetyl Chloride.

10.4. Hazardous Decomposition Products

Will not occur.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not acutely toxic.

Chemical Name	CAS Number	Toxicity
Ethyl Alcohol	64-17-5	Oral LD50 Rat 7060 mg/kg (Source: NLM_CIP)
Methyl Alcohol	67-56-1	Oral LD50 Acute Toxicity Estimate 100 mg/kg (Source: ECHA)

Acute Toxicity - Dermal Exposure:

Not acutely toxic.

Chemical Name	CAS Number	Toxicity
Methyl Alcohol	67-56-1	Dermal LD50 Acute Toxicity Estimate 300 mg/kg (Source: ECHA)
Potassium Iodate	7758-05-6	Dermal LD50 Rat >2000 mg/kg (Source: ECHA_API)
Aluminum Ammonium Sulfate Dodecahydrate	7784-26-1	Dermal LD50 Rat >2000 mg/kg (Source: ECHA_API) As Sulfuric acid, aluminum ammonium salt (2:1:1) [7784-25-0]

Acute Toxicity - Inhalation Exposure:

Inhalation acute toxicity estimate (ATE, vapor): 1666.6667 mg/L, 4 h(calculated)

Chemical Name	CAS Number	Toxicity
Ethyl Alcohol	64-17-5	Inhalation LC50 Rat 116.9 mg/L 4 h (males, vapor, Source: ECHA_API); Inhalation LC50 Rat 133.8 mg/L 4 h (females, vapor, Source: ECHA_API)
Methyl Alcohol	67-56-1	Inhalation LC50 Acute Toxicity Estimate 3 mg/L 4 h (Source: ECHA)

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
No data found.		

National Toxicology Program (NTP)

Chemical Name	CAS Number	Classification
Ethyl Alcohol	64-17-5	Male Rat - Not Tested; Female Rat - Not Tested; Male Mice - Inadequate Experiment; Female Mice - Inadequate Experiment (TR-510)

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

U.S. OSHA specifically regulated carcinogens

Chemical Name	CAS Number	Classification
No data found.		

11.3 Additional Toxicology Information:

May damage fertility or the unborn child.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Chemical Name	CAS Number	Species	Exposure	Toxicity
Ethyl Alcohol	64-17-5	Earthworm	Acute	LC50 48 h Eisenia foetida 0.1 - 1 mg/cm2 [filter paper] (IUCLID)
Methyl Alcohol	67-56-1	Earthworm	Acute	LC50 48 h Eisenia foetida >1 mg/cm2 [filter paper] (IUCLID)
Ethyl Alcohol	64-17-5	Freshwater Fish	Acute	LC50 96 h Oncorhynchus mykiss 12.0 - 16.0 mL/L [static] (EPA); LC50 96 h Pimephales promelas >100 mg/L [static] (EPA); LC50 96 h Pimephales promelas 13400 - 15100 mg/L [flow-through] (EPA)
Methyl Alcohol	67-56-1	Freshwater Fish	Acute	LC50 96 h Pimephales promelas 28200 mg/L [flow-through] (EPA); LC50 96 h Pimephales promelas >100 mg/L [static] (EPA); LC50 96 h Oncorhynchus mykiss 19500 - 20700 mg/L [flow-through] (EPA); LC50 96 h Oncorhynchus mykiss 18 - 20 mL/L [static] (EPA); LC50 96 h Lepomis macrochirus 13500 - 17600 mg/L [flow-through] (EPA)
Ethyl Alcohol	64-17-5	Water Flea	Acute	LC50 48 h Daphnia magna 9268 - 14221 mg/L (IUCLID); EC50 48 h Daphnia magna 2 mg/L [Static] (EPA)
Aluminum Ammonium Sulfate Dodecahydrate	7784-26-1	Water Flea	Chronic	"NOEC 21 d Daphnia magna 0.076 mg/L [semi-static] (reproduction, ECHA_API); NOEC 21 d Daphnia magna 0.137 mg/L [semi-static] (immobilisation, ECHA_API)" As Sulfuric acid, aluminum ammonium salt (2:1:1) [7784-25-0]

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

SECTION 14: Transportation Information

14.1 Transportation by Land - Department of Transportation (DOT, United States of America)

Not regulated according to DOT regulations.



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

14.2 Transportation by Air - International Air Transport Association (IATA)

Not regulated according to IATA Dangerous Goods Regulations.

14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG regulations.

SECTION 15: Regulatory Information

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

15.01. Occupational Safety and Health Administration (OSHA) Hazards

Chemical Name	CAS Number	Regulatory Information
No data found.		

15.02. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Chemical Name	CAS Number	RQ
No data found.		

15.03. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Chemical Name	CAS Number	Regulatory Information
Methyl Alcohol	67-56-1	5000 lb final RQ; 2270 kg final RQ

15.04. Superfund Amendments and Reauthorization Act (SARA) 313 Toxics Release Inventory (TRI)

Chemical Name	CAS Number	List	Regulatory Information
Methyl Alcohol	67-56-1	Emission Reporting	1.0 % de minimis concentration

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Ethyl Alcohol	64-17-5	Teratogen
Methyl Alcohol	67-56-1	Present

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Ethyl Alcohol	64-17-5	Present
Methyl Alcohol	67-56-1	Environmental hazard
Aluminum Ammonium Sulfate Dodecahydrate	7784-26-1	"Present" As Aluminum soluble salts [RR-00021-5]

15.07. New Jersey Worker and Community Right-to-Know Components

Chemical Name	CAS Number	Regulatory Information
Ethyl Alcohol	64-17-5	sn 0844
Methyl Alcohol	67-56-1	sn 1222

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
Ethyl Alcohol	64-17-5	"carcinogen, 7/1/1988 (when associated with alcohol abuse); carcinogen, 4/29/2011" As Alcoholic beverages [RR-01961-4]
Ethyl Alcohol	64-17-5	"developmental toxicity, 10/1/1987 (listed under Ethyl alcohol in alcoholic beverages)" As Alcoholic beverages [RR-01961-4]
Methyl Alcohol	67-56-1	developmental toxicity, 3/16/2012

15.09. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Chemical Name	CAS Number	List	Status
Hematoxylin	517-28-2	DSL	Present
Ethyl Alcohol	64-17-5	DSL	Present
Ethyl Alcohol	64-17-5	NDSL	"Present" As Alcohols, C1-3 [68475-56-9]
Methyl Alcohol	67-56-1	DSL	Present
Methyl Alcohol	67-56-1	NDSL	"Present" As Alcohols, C1-3 [68475-56-9]
Water	7732-18-5	DSL	Present
Potassium Iodate	7758-05-6	DSL	Present
Aluminum Ammonium Sulfate Dodecahydrate	7784-26-1	DSL	Present

15.10. United States of America Toxic Substances Control Act (TSCA) List

Chemical Name	CAS Number	Status
Hematoxylin	517-28-2	Present (ACTIVE)
Ethyl Alcohol	64-17-5	Present (ACTIVE)
Methyl Alcohol	67-56-1	Present (ACTIVE)
Water	7732-18-5	Present [XU] (ACTIVE)
Potassium Iodate	7758-05-6	Present (ACTIVE)
Aluminum Ammonium Sulfate Dodecahydrate	7784-26-1	"Present (ACTIVE)" As Sulfuric acid, aluminum ammonium salt (2:1:1) [7784-25-0]

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Chemical Name	CAS Number	List	Number
Hematoxylin	517-28-2	EINECS	208-237-3
Ethyl Alcohol	64-17-5	EINECS	200-578-6
Methyl Alcohol	67-56-1	EINECS	200-659-6
Water	7732-18-5	EINECS	231-791-2
Potassium Iodate	7758-05-6	EINECS	231-831-9
Aluminum Ammonium Sulfate Dodecahydrate	7784-26-1	EINECS	"232-055-3" As Aluminium ammonium bis(sulphate) [7784-25-0]

15.12. China - Inventory of Existing chemical Substances (IECSC)

Chemical Name	CAS Number	Status
Hematoxylin	517-28-2	Present [32387]
Ethyl Alcohol	64-17-5	Present [38125]
Methyl Alcohol	67-56-1	Present [16735]
Water	7732-18-5	Present [32224]
Potassium Iodate	7758-05-6	Present [05806]
Aluminum Ammonium Sulfate Dodecahydrate	7784-26-1	Present [23160] (listed under Sulfuric acid, aluminium(3+) ammonium salt (2:1:1))

15.13. Korea - Existing Chemicals Inventory (KECI/KECL)

Chemical Name	CAS Number	List	Status
Hematoxylin	517-28-2	Annex 1	Present [KE-10609]
Ethyl Alcohol	64-17-5	Annex 1	Present [KE-13217]
Methyl Alcohol	67-56-1	Annex 1	Present [KE-23193]
Water	7732-18-5	Annex 1	Present [KE-35400]
Potassium Iodate	7758-05-6	Annex 1	Present [KE-29148]
Aluminum Ammonium Sulfate Dodecahydrate	7784-26-1	Annex 1	"Present [KE-00885]" As Ammonium alum [7784-25-0]

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

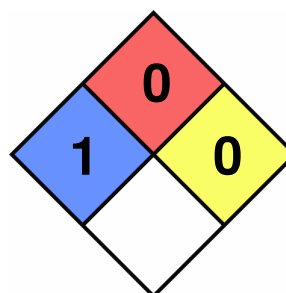
15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Hematoxylin	517-28-2	(5)-3664
Ethyl Alcohol	64-17-5	(2)-202
Methyl Alcohol	67-56-1	(2)-201
Water	7732-18-5	- (listed on Japanese Pharmacopoeia 8th Edition)
Potassium Iodate	7758-05-6	(1)-440
Aluminum Ammonium Sulfate Dodecahydrate	7784-26-1	(1)-25, (1)-400 (not considered as a new chemical substance)

SECTION 16: Other Information

16.1 National Fire Protection Associate (NFPA) Rating

Health: 1
Flammability: 0
Reactivity: 0
Special Hazard:



16.2 Document Revision

Last Revision Date:
 2026-05-22

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.