

Material Safety Data Sheet

Creation Date 08-Apr-2010

Revision Date 08-Apr-2010

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Alcoholic Hematoxylin

Cat No. 88007

Synonyms No information available.

Recommended Use Laboratory chemicals

Company Richard Allan Scientific A Subsidiary of Thermo Fisher Scientific 4481 Campus Drive Kalamazoo, MI 49008 Tel: (800) 522-7270	Emergency Telephone Number Chemtrec US: (800) 424-9300 Chemtrec EU: (202) 483-7616
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2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Flammable liquid and vapor. Poison, may be fatal or cause blindness if swallowed. Cannot be made non-poisonous. Vapor harmful. Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes. May cause skin and respiratory tract irritation. May cause central nervous system effects. Aspiration hazard if swallowed - can enter lungs and cause damage. Possible risks of irreversible effects. This substance has caused adverse reproductive and fetal effects in humans.

Appearance Purple	Physical State Liquid	odor Characteristic Alcohol-like
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Target Organs Central nervous system (CNS), Eyes, Blood, Liver, Kidney, spleen, Optic nerve, Reproductive System

Potential Health Effects

Acute Effects

Principle Routes of Exposure

Eyes	Irritating to eyes.
Skin	Harmful in contact with skin. May cause irritation.
Inhalation	Vapor harmful. Harmful by inhalation. Inhalation may cause central nervous system effects. May cause irritation of respiratory tract.
Ingestion	Aspiration hazard. May be fatal or cause blindness if swallowed. May cause central nervous system effects. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects This substance has caused adverse reproductive and fetal effects in humans. Tumorigenic effects have been reported in experimental animals.. May cause adverse liver effects. May cause adverse kidney effects. Possible risks of irreversible effects.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions Central nervous system disorders. Gastrointestinal tract. Preexisting eye disorders. Liver disorders. Skin disorders.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
Ethyl alcohol	64-17-5	85 - 90
Methyl alcohol	67-56-1	4 - 5
Isopropyl alcohol	67-63-0	4 - 5
Hematoxylin	517-28-2	< 1

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point	13.9°C / 57°F
Method	No information available.
Autoignition Temperature	No information available.
Explosion Limits	
Upper	No data available
Lower	No data available
Suitable Extinguishing Media	CO ₂ , dry chemical, dry sand, alcohol-resistant foam.
Unsuitable Extinguishing Media	Water may be ineffective.
Hazardous Combustion Products	No information available.
Sensitivity to mechanical impact	No information available.
Sensitivity to static discharge	No information available.

Specific Hazards Arising from the Chemical

Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated.

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Methyl alcohol	TWA: 200 ppm TWA: 262 mg/m ³ STEL: 328 mg/m ³ STEL: 250 ppm Skin	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 310 mg/m ³	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 325 mg/m ³ STEL: 250 ppm Skin
Isopropyl alcohol	TWA: 400 ppm TWA: 985 mg/m ³ STEL: 500 ppm STEL: 1230 mg/m ³	TWA: 400 ppm TWA: 980 mg/m ³ STEL: 1225 mg/m ³ STEL: 500 ppm	TWA: 200 ppm STEL: 400 ppm

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection

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 and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Purple
odor	Characteristic Alcohol-like
Odor Threshold	No information available.
pH	No information available.
Vapor Pressure	No information available.
Vapor Density	No information available.
Viscosity	No information available.
Boiling Point/Range	77 - 80°C / 170.6 - 176°F
Melting Point/Range	No information available.
Decomposition temperature °C	No information available.
Flash Point	13.9°C / 57°F
Evaporation Rate	No information available.
Specific Gravity	No information available.
Solubility	No information available.
log Pow	No data available

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Heat, flames and sparks.
Incompatible Materials	Strong oxidizing agents, Peroxides, Metals, Acids, Acid anhydrides, Acid chlorides
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂), Formaldehyde
Hazardous Polymerization	Hazardous polymerization does not occur
Hazardous Reactions .	None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information No acute toxicity information is available for this product

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethyl alcohol	7060 mg/kg (Rat)	Not listed	20000 ppm/10H (Rat)
Methyl alcohol	5628 mg/kg (Rat)	15800 mg/kg (Rabbit)	64000 ppm (Rat) 4 h 83.2 mg/L (Rat) 4 h
Isopropyl alcohol	4396 mg/kg (Rat)	12800 mg/kg (Rat) 12870 mg/kg (Rabbit)	72.6 mg/L (Rat) 4 h

Irritation Irritating to eyes

Toxicologically Synergistic Products No information available.

Chronic Toxicity

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA	Mexico
Ethyl alcohol	Not listed	Group 1	Not listed	X	Not listed
Isopropyl alcohol	Not listed	Group 1	Not listed	Not listed	Not listed

IARC: (International Agency for Research on Cancer)

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Sensitization No information available.

Mutagenic Effects Mutagenic effects have occurred in humans.

Reproductive Effects Adverse reproductive effects have occurred in humans..

Developmental Effects Substances known to cause developmental toxicity in humans.

Teratogenicity Teratogenic effects have occurred in humans..

Other Adverse Effects Tumorigenic effects have been reported in experimental animals.. See actual entry in RTECS for complete information.

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

12. ECOLOGICAL INFORMATION

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Ethyl alcohol	Not listed	Leucidus idus: LC50 = 8.14 mg/L/48h	Photobacterium phosphoreum: EC50 = 34634 mg/L/30 min Photobacterium phosphoreum: EC50 = 35470 mg/L/5 min	EC50 = 9268 mg/L/48h EC50 = 10800 mg/L/24h
Methyl alcohol	Not listed	Pimephales promelas: LC50 > 10000 mg/L 96h	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	EC50 > 10000 mg/L 24h
Isopropyl alcohol	EC50 96 h >1000 mg/L EC50 72 h >1000 mg/L EC50 96 h >1000 mg/L	LC50 96 h 9640 mg/L	= 35390 mg/L EC50 Photobacterium phosphoreum 5 min	EC50 48 h 13299 mg/L

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility

Component	log Pow
Ethyl alcohol	-0.32
Methyl alcohol	-0.74
Isopropyl alcohol	0.05

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Methyl alcohol - 67-56-1	U154	-

14. TRANSPORT INFORMATION

DOT

UN-No UN1987
Proper Shipping Name ALCOHOLS, N.O.S.
Hazard Class 3
Packing Group II

TDG

UN-No UN1987
Proper Shipping Name ALCOHOLS, N.O.S.
Hazard Class 3
Packing Group II

14. TRANSPORT INFORMATION

IATA

UN-No UN1987
Proper Shipping Name ALCOHOLS, N.O.S.
Hazard Class 3
Packing Group II

IMDG/IMO

UN-No UN1987
Proper Shipping Name ALCOHOLS, N.O.S.
Hazard Class 3
Packing Group II

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Ethyl alcohol	X	X	-	200-578-6	-		X	X	X	X	KE-13217 X
Methyl alcohol	X	X	-	200-659-6	-		X	X	X	X	KE-23193 X
Isopropyl alcohol	X	X	-	200-661-7	-		X	X	X	X	KE-29363 X
Hematoxylin	X	X	-	208-237-3	-		X	X	X	X	KE-10609 X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Methyl alcohol	67-56-1	4 - 5	1.0
Isopropyl alcohol	67-63-0	4 - 5	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

Not applicable

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Methyl alcohol	X		-

OSHA

Not applicable

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Methyl alcohol	5000 lb	-

California Proposition 65

This product contains the following Proposition 65 chemicals: Ethyl alcohol is only a considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage.

Component	CAS-No	California Prop. 65	Prop 65 NSRL
Ethyl alcohol	64-17-5	Developmental	-

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Ethyl alcohol	X	X	X	-	X
Methyl alcohol	X	X	X	X	X
Isopropyl alcohol	X	X	X	-	X

U.S. Department of Transportation

Reportable Quantity (RQ):	Y
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade

Serious risk, Grade 3

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

B2 Flammable liquid

D1B Toxic materials

D2A Very toxic materials

D2B Toxic materials

**16. OTHER INFORMATION****Prepared By**Regulatory Affairs
Thermo Fisher Scientific
Tel: (412) 490-8929**Creation Date**

08-Apr-2010

Print Date

08-Apr-2010

Revision Summary

"***", and red text indicates revision

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS

Material Safety Data Sheet

Creation Date 09-Mar-2009

Revision Date 09-Mar-2009

Revision Number: 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Chromaview Van Geison

Cat No. 88011

Synonyms No information available.

Company Richard Allan Scientific
A Subsidiary of Thermo Fisher Scientific
4481 Campus Drive
Kalamazoo, MI 49008
Tel: (800) 522-7270

Emergency Telephone Number
Chemtrec US: (800) 424-9300
Chemtrec EU: (202) 483-7616

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Causes burns by all exposure routes.

Appearance Amber.

Physical State Liquid.

Odor odorless.

Target Organ Effects Skin, Respiratory system, Eyes, Gastrointestinal tract (GI)

Potential Health Effects

Acute Effects

Principle Routes of Exposure

Eyes	Causes burns.
Skin	Causes burns. May be harmful in contact with skin.
Inhalation	Causes burns. May be harmful if inhaled.
Ingestion	Causes burns. May be harmful if swallowed.

Chronic Effects Mutagenic effects have occurred in microorganisms..

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
Picric acid	88-89-1	1.23
Diazolidinyl urea	78491-02-8	< 0.1

3. COMPOSITION/INFORMATION ON INGREDIENTS

Water	7732-18-5	> 98
Acid fuchsine	3244-88-0	< 1.0

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device.. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point	No information available.
Autoignition Temperature	No information available.
Flammability Limits in Air	
Suitable Extinguishing Media	Substance is nonflammable; use agent most appropriate to extinguish surrounding fire..
Unsuitable Extinguishing Media	No information available.
Hazardous Combustion Products	No information available.
Sensitivity to mechanical impact	No information available.
Sensitivity to static discharge	No information available.

Specific Hazards Arising from the Chemical
Corrosive Material. Causes burns by all exposure routes.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA **Health** 3 **Flammability** 0 **Instability** 0 **Physical hazards** N/A

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.
Environmental Precautions	Should not be released into the environment.
Methods for Containment and Clean Up	Soak up with inert absorbent material. Keep in suitable and closed containers for disposal.

7. HANDLING AND STORAGE

Handling	Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Do not breathe vapors/dust. Do not ingest.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures	Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.
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Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Picric acid	TWA: 0.1 mg/m ³	(Vacated) TWA: 0.1 mg/m ³ Skin TWA: 0.1 mg/m ³	IDLH: 75 mg/m ³ TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Picric acid	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³ Skin

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection

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 and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Amber
Odor	odorless
pH	< 2
Vapor Pressure	No information available.
Vapor Density	No information available.
Viscosity	No information available.
Boiling Point/Range	No information available.
Melting Point/Range	No information available.
Decomposition temperature °C	No information available.
Flash Point	No information available.
Evaporation Rate	No information available.
Specific Gravity	1.00 - 1.08
Solubility	No information available.

10. STABILITY AND REACTIVITY

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂)
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions .	None under normal processing..

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Picric acid	200 mg/kg (Rat)	Not listed	Not listed
Diazolidinyl urea	2600 mg/kg (Rat)	2 g/kg (Rabbit)	Not listed
Water	90000 mL/kg (Rat)	Not listed	Not listed

Chronic Toxicity

Carcinogenicity	There are no known carcinogenic chemicals in this product
Mutagenic Effects	No information available
Reproductive Effects	No information available.
Developmental Effects	No information available.
Teratogenicity	No information available.
Endocrine Disruptor Information	No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Do not empty into drains

Persistence and Degradability	No information available
Bioaccumulation/ Accumulation	No information available
Mobility	No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT

UN-No UN3265
Proper Shipping Name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Proper technical name (Acid fuchsin, Picric acid)
Hazard Class 8
Packing Group III

TDG

UN-No UN3265
Proper Shipping Name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Hazard Class 8
Packing Group III

IATA

UN-No UN3265
Proper Shipping Name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Hazard Class 8
Packing Group III

IMDG/IMO

UN-No UN3265
Proper Shipping Name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Hazard Class 8
Packing Group III

15. REGULATORY INFORMATION

All of the components in the product are on the following Inventory lists: All of the components in the product are on the following Inventory lists:

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Picric acid	Present	X	-	201-865-9	-		X	X	X	X	KE-34715 X

Diazolidinyl urea	Present	X	-	278-928-2	-		X	-	X	X	KE-03215 X
Water	Present	X	-	231-791-2	-		X	-	X	X	KE-35400 X
Acid fuchsine	Present	X	-	221-816-5	-		X	X	X	X	-

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Picric acid	88-89-1	1.23	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

Not applicable

Clean Air Act

Not applicable

OSHA

Not applicable

CERCLA

Not Applicable

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Picric acid	X	X	X	-	X

U.S. Department of Transportation

Reportable Quantity (RQ): N
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product contains the following DHS chemicals:

Component	DHS Chemical Facility Anti-Terrorism Standard
Picric acid	2000 lb STQ

Other International Regulations

Mexico - Grade No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

E Corrosive material



16. OTHER INFORMATION

Prepared By Regulatory Affairs
Creation Date 09-Mar-2009
Print Date 09-Mar-2009
Revision Summary "****", and red text indicates revision

Disclaimer

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End of MSDS

Material Safety Data Sheet
Sodium thiosulfate solution
Section 1 - Chemical Product and Company Identification
MSDS Name:

Sodium thiosulfate solution

Catalog Numbers:

88000, 88010, 88025

Synonyms:

None.

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	DI Water	95	231-791-2		
10102-17-7	Sodium thiosulfate, pentahydrate	5	Not available		

Section 3 - Hazards Identification
EMERGENCY OVERVIEW

Appearance: Colorless liquid

Caution! May cause eye, skin, and respiratory tract irritation.

Target Organs: No data found

Potential Health Effects
Eye:

May cause eye irritation.

Skin:

May cause skin irritation.

Material Safety Data Sheet
Sodium thiosulfate solution**Ingestion:**

May cause irritation of the digestive tract.

Inhalation:

May cause respiratory tract irritation.

Chronic:

No information found.

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

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin:

In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion:

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

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:

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire. Use extinguishing media most appropriate for the surrounding fire.

Autoignition Temperature:

Not available

Explosion Limits:

Lower: Not available Upper: Not available

Flash Point:

Not available

NFPA Rating:

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

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

Use proper personal protective equipment as indicated in Section 8.

Material Safety Data Sheet

Sodium thiosulfate solution

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. 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 at room temperature.

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
DI Water	None listed	None listed	None listed
Sodium thiosulfate, pentahydrate	None listed	None listed	None listed

OSHA Vacated PELs**Personal Protective Equipment****Eyes:**

Wear chemical splash goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: Colorless

Odor: No information found

pH: No information found

Vapor Pressure: No information found

Vapor Density: No information found

Evaporation Rate: No information found

Material Safety Data Sheet
Sodium thiosulfate solution

Viscosity: No information found
Boiling Point: No information found
Freezing/Melting Point: No information found
Decomposition Temperature: No information found
Solubility in water: Soluble.
Specific Gravity/Density: No information found
Molecular Formula: Solution
Molecular Weight: No information found

Section 10 - Stability and Reactivity**Chemical Stability:**

Stable under normal temperatures and pressures.

Conditions to Avoid:

Excess heat

Incompatibilities with Other Materials

Sodium thiosulfate violently reacts with sodium nitrite. It is also incompatible with strong oxidizers, acids.

Hazardous Decomposition Products

Hydrogen sulfide, sodium oxide

Hazardous Polymerization

Has not been reported.

Section 11 - Toxicological Information**RTECS:**

CAS# 7732-18-5: ZC0110000

CAS# 10102-17-7: WE6660000

LD50/LC50:

CAS# 7732-18-5:

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

CAS# 10102-17-7:

No information found

Carcinogenicity:

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

CAS# 10102-17-7: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology:

No information found

Teratogenicity:

No information found

Reproductive:

No information found

Mutagenicity:

No information found

Material Safety Data Sheet
Sodium thiosulfate solution**Neurotoxicity:**

No information found

Other:

The toxicological properties have not been fully investigated.

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:****Section 15 - Regulatory Information****US Federal****TSCA**

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 10102-17-7 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the Inventory. (40CFR720.3(u)(2)).

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.

Material Safety Data Sheet
Sodium thiosulfate solution**CERCLA Hazardous Substances and corresponding RQs**

None of the components are on this list.

SARA Section 302 Extremely Hazardous Substances

None of the components are on this list.

SARA Hazard Categories

Not available

SARA Section 313

None of the components are on this list.

Clean Air Act - Hazardous Air Pollutants (HAPs)

None of the components are on this list.

Clean Air Act - Class 1 Ozone Depletors

None of the components are on this list.

Clean Air Act - Class 2 Ozone Depletors

None of the components are on this list.

Clean Water Act - Hazardous Substances

None of the components are on this list.

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**

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.

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

United Kingdom Occupational Exposure Limits

No information found

Material Safety Data Sheet
Sodium thiosulfate solution**United Kingdom Maximum Exposure Limits**

No information found

Canadian DSL/NDSL

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

CAS# 10102-17-7 is listed on Canada's DSL List.

Canadian WHMIS Classifications

No information found

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

No information found

Section 16 - Other Information

Color information has been
MSDS Creation Date: June 6, 2005
Revision Date: May 29, 2008

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.