



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation Water Hardness Indicator, 1% Eriochrome Black T in 20% Triethanolamine/80% Isopropyl Alcohol

Product Number 9301

Other Identifying Product Numbers 9301-16, 9301-4

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



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SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

Hazard Class	Category	Hazard Statements	Precautionary Statements
Flammable Liquids	Category 2	H225	P210,P233,P240,P241,P242,P243, P280,P303+P361+P353,P370+P378, P403+P235,P501
Serious Eye Damage / Eye Irritation	Category 2	H319	P264,P280,P305+P351+P338, P337+P313
Specific Target Organ Toxicity - Single Exposure - Transient Effects	Category 3 - Narcotic Effects	H336	P261,P271,P304+P340,P312, P403+P233,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
H225	Highly flammable liquid and vapor
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

Precautionary Statements:

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

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Prevention

Precautionary Number	Precautionary Statement
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharge.
P261	Avoid breathing fumes or mist.
P264	Wash hands, arms, and face thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves and eye protection.

Response

Precautionary Number	Precautionary Statement
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a poison center or doctor if you feel unwell.
P337+P313	If eye irritation persists: 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+P233+P235	Store in a well-ventilated place. Keep container tightly closed. Keep cool.
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

26.4 percent of this mixture consists of ingredient(s) of unknown acute inhalation toxicity.

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SECTION 3: Composition / Information on Ingredients

3.1. Components of Mixture

Chemical Name (IUPAC)	Common Name and Synonyms	CAS Number	Weight%
propan-2-ol	Isopropyl Alcohol; 2-Propanol	67-63-0	72.43
2-[bis(2-hydroxyethyl)amino]ethanol	Triethanolamine; trolamine; 2,2',2''-nitrilotriethanol; tris(hydroxyethyl)amine; TEA	102-71-6	26.40
sodium 3-hydroxy-4- [(1-hydroxynaphthalen-2-yl)diazeryl]-7-nitronaphthalene-1-sulfonate	Eriochrome Black T; C.I. Mordant Black 11, monosodium salt	1787-61-7	1.17

SECTION 4: First-Aid Measures

4.1. Description of Necessary Measures

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.

Ingestion: Do NOT induce vomiting.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Skin Contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Results in drying and cracking which can lead to secondary infections and dermatitis. Dermal absorption causes many of the symptoms of inhalation.

4.2. Most Important Symptoms and Effects, Acute and Delayed

May cause drowsiness or dizziness Flammable liquid. May cause irritation of the respiratory system. Causes irritation to the eyes. If ingested, give large quantity of water and induce vomiting. Call a physician. Wash areas of contact with water. 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. Dermal absorption causes many of the symptoms of inhalation. CHRONIC EFFECTS / CARCINOGENICITY: Repeated ingestion of Triethanolamine has caused liver and kidney damage in animals.

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. Carbon dioxide, dry chemical powder, alcohol foam, polymer foam, halons, water spray Carbon dioxide, dry chemical, alcohol foam Water or ordinary type foam may cause frothing.

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

Highly flammable liquid and vapor Vapors may explode if ignited in an enclosed area.

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

Ground and bond container and receiving equipment. Use explosion-proof equipment. Use non-sparking tools. Take action to prevent static discharge. Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Remove all sources of ignition. Contain spill. Do not flush to sewer. Absorb with suitable inert material (vermiculite, dry sand, etc) and place in a chemical waste container for proper disposal in an approved waste disposal facility. Ventilate area of spill. Have extinguishing agent available in case of fire. Use non-sparking tools and equipment. 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. Keep container tightly closed. Keep cool. 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 in secure, flammable storage area away from all sources of ignition. Empty containers may be hazardous since they retain product residues.

SECTION 8: Exposure Controls / Personal Protection

8.1. Exposure Limits

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

Chemical Name	CAS Number	Exposure Limit
Isopropyl Alcohol	67-63-0	400 ppm TWA; 980 mg/m3 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
Isopropyl Alcohol	67-63-0	400 ppm STEL

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

Chemical Name	CAS Number	Exposure Limit
Triethanolamine	102-71-6	5 mg/m3 TWA
Isopropyl Alcohol	67-63-0	200 ppm TWA

8.2. Engineering Controls

Use only outdoors or in a well-ventilated area. A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

8.3. Individual Protective Measures and Personal Protective Equipment

Respiratory Protection: Normal room ventilation is adequate. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

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SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Physical State:	liquid
Color:	Dark red
Odor:	Data not available.
Odor Threshold:	Data not available.
Melting/Freezing Point:	Data not available.
Boiling Point/Range:	Data not available.
Flammability:	Data not available.
Flammability/Explosive Limits:	Data not available.
Flash Point:	13 °C (calculated)
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	Data not available.
pH:	Data not available.
Kinematic Viscosity:	Data not available.
Solubility:	Data not available.
Vapor Pressure:	Data not available.
Evaporation Rate:	Data not available.
Relative Density:	0.97
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 Gmeling 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. Strong oxidizing agents such as Nitrates, Perchlorates or Sulfuric Acid, heat, sparks, open flame. Will attack some forms of plastics, rubber and coatings. May react with metallic aluminum and generate hydrogen gas.

10.4. Hazardous Decomposition Products

Will not occur.

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SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Oral acute toxicity estimate (ATE): 4612 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Triethanolamine	102-71-6	Oral LD50 Rat 4190 mg/kg (Source: NLM_CIP)
Eriochrome Black T	1787-61-7	Oral LD50 Rat 17590 mg/kg (Source: NLM_CIP)
Isopropyl Alcohol	67-63-0	Oral LD50 Rat 4710 - 5840 mg/kg (Source: OECD_SIDS)

Acute Toxicity - Dermal Exposure:

Not acutely toxic.

Chemical Name	CAS Number	Toxicity
Triethanolamine	102-71-6	Dermal LD50 Rabbit >20000 mg/kg (Source: NLM_HSDB)
Eriochrome Black T	1787-61-7	Dermal LD50 Rabbit >3000 mg/kg (Source: IUCLID)
Isopropyl Alcohol	67-63-0	Dermal LD50 Rat 12800 mg/kg (Source: Canada_WHMIS)

Acute Toxicity - Inhalation Exposure:

No information found.

Chemical Name	CAS Number	Toxicity
Eriochrome Black T	1787-61-7	Inhalation LC50 Rat >2 mg/L 4 h (Source: NLM_CIP)
Isopropyl Alcohol	67-63-0	Inhalation LC50 Rat >10000 ppm 6 h (no deaths occurred, vapor, Source: ECHA_API)

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
Triethanolamine	102-71-6	Group 3 (Not Classified) - Monograph 77 [2000]
Isopropyl Alcohol	67-63-0	Group 3 (Not Classified) - Monograph 71 [1999]; Supplement 7 [1987]; Monograph 15 [1977]

National Toxicology Program (NTP)

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Chemical Name	CAS Number	Classification
Triethanolamine	102-71-6	Male Rat - Equivocal Evidence; Female Rat - No Evidence; Male Mice - Inadequate Experiment; Female Mice - Inadequate Experiment (TR-449); Male Rat - Not Tested; Female Rat - Not Tested; Male Mice - Equivocal Evidence; Female Mice - Some Evidence (TR-518)

U.S. OSHA specifically regulated carcinogens

Chemical Name	CAS Number	Classification
No data found.		

11.3 Additional Toxicology Information:

Causes serious eye irritation. May cause drowsiness or dizziness.

SECTION 12: Ecological Information

12.1. Ecotoxicity

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Chemical Name	CAS Number	Species	Exposure	Toxicity
Eriochrome Black T	1787-61-7	Earthworm	Acute	LC0 14 Days Eisenia foetida <12.3 mg/kg [soil dry weight] (IUCLID); LC100 14 Days Eisenia foetida >1000 mg/kg [soil dry weight] (IUCLID); LC50 14 Days Eisenia foetida >1000 mg/kg [soil dry weight] (IUCLID)
Eriochrome Black T	1787-61-7	Earthworm	Chronic	NOEC 14 Days Eisenia foetida <12.3 mg/kg [soil dry weight] (IUCLID)
Triethanolamine	102-71-6	Freshwater Algae	Acute	EC50 72 h Desmodesmus subspicatus 216 mg/L (IUCLID); EC50 96 h Desmodesmus subspicatus 169 mg/L (IUCLID)
Eriochrome Black T	1787-61-7	Freshwater Algae	Acute	EC50 72 h Desmodesmus subspicatus 0.094 mg/L (IUCLID)
Isopropyl Alcohol	67-63-0	Freshwater Algae	Acute	EC50 96 h Desmodesmus subspicatus >1000 mg/L (IUCLID); EC50 72 h Desmodesmus subspicatus >1000 mg/L (IUCLID)
Triethanolamine	102-71-6	Freshwater Fish	Acute	LC50 96 h Pimephales promelas 10600 - 13000 mg/L [flow-through] (EPA); LC50 96 h Pimephales promelas >1000 mg/L [static] (IUCLID); LC50 96 h Lepomis macrochirus 450 - 1000 mg/L [static] (IUCLID)
Eriochrome Black T	1787-61-7	Freshwater Fish	Acute	LC50 96 h Brachydanio rerio 12.3 mg/L [static] (IUCLID); LC50 96 h Oncorhynchus mykiss 7.3 mg/L [static] (IUCLID); LC50 96 h Pimephales promelas 6 mg/L [static] (EPA)
Isopropyl Alcohol	67-63-0	Freshwater Fish	Acute	LC50 96 h Pimephales promelas 9640 mg/L [flow-through] (IUCLID); LC50 96 h Pimephales promelas 11130 mg/L [static] (IUCLID); LC50 96 h Lepomis macrochirus >1400000 µg/L (EPA)
Eriochrome Black T	1787-61-7	Water Flea	Acute	EC50 48 h Daphnia magna 41.3 mg/L (IUCLID)
Isopropyl Alcohol	67-63-0	Water Flea	Acute	EC50 48 h Daphnia magna 13299 mg/L (IUCLID)

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in soil

Data not available.

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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)

Sizes: 120 mL, 500 mL

UN Number: UN2924

Proper Shipping Name: Flammable Liquid, Corrosive, n.o.s. (Isopropanol, Triethanolamine)

Hazard Class: 3 (8)

Packing Group: II

Hazard Label(s):



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

Sizes: 120 mL, 500 mL

UN Number: UN2924

Proper Shipping Name: Flammable Liquid, Corrosive, n.o.s. (Isopropanol, Triethanolamine)

Hazard Class: 3 (8)

Packing Group: II

Hazard Label(s):





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14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 120 mL, 500 mL

UN Number: UN2924

Proper Shipping Name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (isopropanol, triethanolamine)

Hazard Class: 3 (8)

Packing Group: II

Hazard Label(s):



SECTION 15: Regulatory Information

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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
No data found.		

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

Chemical Name	CAS Number	List	Regulatory Information
Isopropyl Alcohol	67-63-0	Emission Reporting	1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Triethanolamine	102-71-6	Present
Isopropyl Alcohol	67-63-0	Present

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Triethanolamine	102-71-6	Present
Isopropyl Alcohol	67-63-0	Environmental hazard

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

Chemical Name	CAS Number	Regulatory Information
Triethanolamine	102-71-6	sn 4094
Isopropyl Alcohol	67-63-0	sn 1076

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15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
No data found.		

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

Chemical Name	CAS Number	List	Status
Triethanolamine	102-71-6	DSL	Present
Eriochrome Black T	1787-61-7	DSL	Present
Isopropyl Alcohol	67-63-0	DSL	Present
Isopropyl Alcohol	67-63-0	NDSL	"Present" As Alcohols, C1-3 [68475-56-9]

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

Chemical Name	CAS Number	Status
Triethanolamine	102-71-6	Present (ACTIVE)
Eriochrome Black T	1787-61-7	Present (ACTIVE)
Isopropyl Alcohol	67-63-0	Present (ACTIVE)

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
Triethanolamine	102-71-6	EINECS	203-049-8
Eriochrome Black T	1787-61-7	EINECS	217-250-3
Isopropyl Alcohol	67-63-0	EINECS	200-661-7

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

Chemical Name	CAS Number	Status
Triethanolamine	102-71-6	Present [29507]
Eriochrome Black T	1787-61-7	Present [26613]
Isopropyl Alcohol	67-63-0	Present [40403]

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

Chemical Name	CAS Number	List	Status
Triethanolamine	102-71-6	Annex 1	Present [KE-25940]
Eriochrome Black T	1787-61-7	Annex 1	Present [KE-31496]
Isopropyl Alcohol	67-63-0	Annex 1	Present [KE-29363]

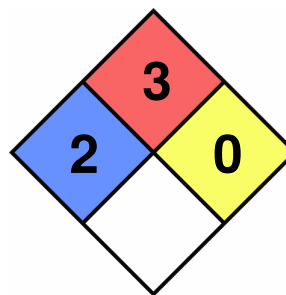
15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Triethanolamine	102-71-6	(2)-308, (2)-353
Eriochrome Black T	1787-61-7	(5)-2113
Isopropyl Alcohol	67-63-0	(2)-207

SECTION 16: Other Information

16.1 National Fire Protection Associate (NFPA) Rating

Health: 2
Flammability: 3
Reactivity: 0
Special Hazard:



16.2 Document Revision

Last Revision Date:
 2026-05-24

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.