

# Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

## SECTION 1: Identification

### 1.1. Product Identifier

**Trade Name or Designation** HydroSpec<sup>®</sup> Water Standard 0.10 mg/g  
Standard for Coulometric Karl Fischer Titration

**Product Number** RK410000

**Other Identifying Product Numbers** RK410000-10x5R

### 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
Acute Toxicity - Dermal	Category 4	H312	P280,P302+P352,P312,P321,P362+P364, P501
Acute Toxicity - Inhalation (Vapors)	Category 4	H332	P261,P271,P304+P340,P312
Flammable Liquids	Category 2	H225	P210,P233,P240,P241,P242,P243, P280,P303+P361+P353,P370+P378, P403+P235,P501
Skin Corrosion / Irritation	Category 2	H315	P264,P280,P302+P352,P321, P332+P313,P362+P364
Carcinogenicity	Category 2	H351	P201,P202,P280,P308+P313,P405, P501
Reproductive Toxicity	Category 2	H361	P201,P202,P280,P308+P313,P405, P501
Specific Target Organ Toxicity - Single Exposure - Transient Effects	Category 3 - Narcotic Effects	H336	P261,P271,P304+P340,P312, P403+P233,P405,P501
Aspiration Hazard	Category 1	H304	P301+P310,P331,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
H304	May be fatal if swallowed and enters airways
H312+H332	Harmful in contact with skin or if inhaled
H315	Causes skin irritation
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child

# Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

## Precautionary Statements:

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

### 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.
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
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor.
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.
P308+P313	If exposed or concerned: Get medical advice or attention.
P312	Call a poison center or doctor if you feel unwell.
P331	Do NOT induce vomiting.
P332+P313	If skin irritation occurs: Get medical advice or attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
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.

# Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

## 2.3. Hazards not Otherwise Classified

No other hazards identified.

## 2.4. Ingredients of Unknown Acute Toxicity

This product does not contain any ingredients of unknown acute toxicity.

## SECTION 3: Composition / Information on Ingredients

### 3.1. Components of Mixture

Chemical Name (IUPAC)	Common Name and Synonyms	CAS Number	Weight%
dimethylbenzene, mixed isomers	Xylenes; Xylenes (o-, m-, p- isomers)	1330-20-7	81.99
ethylbenzene	Ethylbenzene; phenylethane; ethylbenzol	100-41-4	18.00
water	Water	7732-18-5	< 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:** IF SWALLOWED: Immediately call a POISON CENTER or doctor. Dilute immediately with water or milk. Vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Call a physician immediately.

**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. May result in drying and cracking, which can lead to secondary infections and dermatitis.

### 4.2. Most Important Symptoms and Effects, Acute and Delayed

Suspected of damaging fertility or the unborn child Flammable liquid. Harmful or fatal if swallowed. Contact may cause dryness and cracking of the skin. May cause irritation of the respiratory system. Causes irritation to the eyes. If ingested, give large quantity of water. Do not induce vomiting (aspiration of vomitus can cause serious damage to lung tissue). 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: May result 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. Do not allow victim to keep eyes tightly shut. Call a physician. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Observe 48 hours for lung effects. 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. Vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Call a physician immediately.

# Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

## SECTION 5: Fire-Fighting Measures

### 5.1. Extinguishing Media

In case of fire: Use dry chemical, foam, or carbon dioxide to extinguish. Use water spray, dry chemical, alcohol foam, or carbon dioxide for extinguishing the surrounding fire. Water spray can be used to dilute spills to non-flammable mixtures.

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

Highly flammable liquid and vapor Flammable liquid. Vapors are heavier than air and may travel to a source of ignition and flash back. Liquid floats on water and may travel to a source of ignition and spread fire. Combustion may produce irritants and toxic gases.

### 5.3. Special Protective Equipment and Precautions for Firefighters

Wear full protective clothing and positive pressure self-contained breathing apparatus. Polyvinyl alcohol or Viton barrier recommended.

## 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

Eliminate all ignition sources. Stop or control the leak, if this can be done without undue risk. Use appropriate foam to blanket release and suppress vapors. Control runoff and isolate discharged material for proper disposal.

## 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

# 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
Ethylbenzene	100-41-4	100 ppm TWA; 435 mg/m3 TWA
Xylenes	1330-20-7	100 ppm TWA; 435 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)

No limits found.

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

Chemical Name	CAS Number	Exposure Limit
Ethylbenzene	100-41-4	20 ppm TWA
Xylenes	1330-20-7	20 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:** If the exposure limit is exceeded, a full facepiece respirator equipped with organic vapor cartridge should be worn.

**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

<b>Physical State:</b>	Liquid
<b>Color:</b>	Clear, colorless
<b>Odor:</b>	Aromatic
<b>Odor Threshold:</b>	Data not available.
<b>Melting/Freezing Point:</b>	-94.9°C estimated
<b>Boiling Point/Range:</b>	137°C - 140°C
<b>Flammability:</b>	Data not available.
<b>Flammability/Explosive Limits:</b>	Data not available.
<b>Flash Point:</b>	17 °C
<b>Auto-Ignition Temperature:</b>	458°C estimated
<b>Decomposition Temperature:</b>	Data not available.
<b>pH:</b>	Data not available.
<b>Kinematic Viscosity:</b>	Data not available.
<b>Solubility:</b>	Data not available.
<b>Vapor Pressure:</b>	10.65 hPa estimated
<b>Evaporation Rate:</b>	Data not available.
<b>Relative Density:</b>	0.85
<b>Relative Vapor Density:</b>	Data not available.
<b>Particle Characteristics:</b>	Data not available.
<b>Partition Coefficient n-octanol/water, log</b>	3.12-3.2

### 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 oxidizers (chlorine, bromine, fluorine), heat, sparks, open flame. Will attack some forms of plastics, rubber and coatings.

#### 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:

Oral acute toxicity estimate (ATE): 3500 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Ethylbenzene	100-41-4	Oral LD50 Rat 3500 mg/kg (Source: JAPAN_GHS)
Xylenes	1330-20-7	Oral LD50 Rat 3500 mg/kg (Source: JAPAN_GHS)

#### Acute Toxicity - Dermal Exposure:

Dermal acute toxicity estimate (ATE): 1341 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Ethylbenzene	100-41-4	Dermal LD50 Rabbit 15400 mg/kg (Source: JAPAN_GHS)
Xylenes	1330-20-7	Dermal LD50 Acute Toxicity Estimate 1100 mg/kg (Source: ECHA)

#### Acute Toxicity - Inhalation Exposure:

Inhalation acute toxicity estimate (ATE, vapor): 11.7812 mg/L, 4 h(calculated)

Chemical Name	CAS Number	Toxicity
Ethylbenzene	100-41-4	Inhalation LC50 Rat 17.4 mg/L 4 h (Source: OECD_SIDS)
Xylenes	1330-20-7	Inhalation LC50 Acute Toxicity Estimate 11 mg/L 4 h (Source: ECHA)

### 11.2 Carcinogenicity:

#### International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
Ethylbenzene	100-41-4	Group 2B (Possibly Carcinogenic to Humans) - Monograph 77 [2000]
Xylenes	1330-20-7	Group 3 (Not Classified) - Monograph 71 [1999]; Monograph 47 [1989]

#### National Toxicology Program (NTP)

Chemical Name	CAS Number	Classification
Ethylbenzene	100-41-4	Male Rat - Clear Evidence; Female Rat - Some Evidence; Male Mice - Some Evidence; Female Mice - Some Evidence (TR-466)
Xylenes	1330-20-7	Male Rat - No Evidence; Female Rat - No Evidence; Male Mice - No Evidence; Female Mice - No Evidence (TR-327; mixed)



## 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 be fatal if swallowed and enters airways. Harmful in contact with skin or if inhaled. Causes skin irritation. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility or the unborn child.

## SECTION 12: Ecological Information

### 12.1. Ecotoxicity

# Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

Chemical Name	CAS Number	Species	Exposure	Toxicity
Ethylbenzene	100-41-4	Freshwater Algae	Acute	EC50 72 h Pseudokirchneriella subcapitata 4.6 mg/L (IUCLID); EC50 96 h Pseudokirchneriella subcapitata >438 mg/L (IUCLID); EC50 72 h Pseudokirchneriella subcapitata 2.6 - 11.3 mg/L [static] (EPA); EC50 96 h Pseudokirchneriella subcapitata 1.7 - 7.6 mg/L [static] (EPA)
Xylenes	1330-20-7	Freshwater Algae	Acute	"EC50 72 h Pseudokirchneriella subcapitata 11 mg/L (IUCLID)" As Aromatic hydrocarbons, C7-12, C8-rich [93571-75-6]
Ethylbenzene	100-41-4	Freshwater Fish	Acute	LC50 96 h Oncorhynchus mykiss 11.0 - 18.0 mg/L [static] (EPA); LC50 96 h Oncorhynchus mykiss 4.2 mg/L [semi-static] (EPA); LC50 96 h Pimephales promelas 7.55 - 11 mg/L [flow-through] (EPA); LC50 96 h Lepomis macrochirus 32 mg/L [static] (EPA); LC50 96 h Pimephales promelas 9.1 - 15.6 mg/L [static] (EPA); LC50 96 h Poecilia reticulata 9.6 mg/L [static] (EPA)
Xylenes	1330-20-7	Freshwater Fish	Acute	LC50 96 h Pimephales promelas 13.4 mg/L [flow-through] (EPA); LC50 96 h Oncorhynchus mykiss 2.661 - 4.093 mg/L [static] (EPA); LC50 96 h Oncorhynchus mykiss 13.5 - 17.3 mg/L (IUCLID); LC50 96 h Lepomis macrochirus 13.1 - 16.5 mg/L [flow-through] (EPA); LC50 96 h Lepomis macrochirus 19 mg/L (EPA); LC50 96 h Lepomis macrochirus 7.711 - 9.591 mg/L [static] (EPA); LC50 96 h Pimephales promelas 23.53 - 29.97 mg/L [static] (EPA); LC50 96 h Cyprinus carpio 780 mg/L [semi-static] (EPA); LC50 96 h Cyprinus carpio >780 mg/L (IUCLID); LC50 96 h Poecilia reticulata 30.26 - 40.75 mg/L [static] (EPA)
Ethylbenzene	100-41-4	Water Flea	Acute	EC50 48 h Daphnia magna 1.8 - 2.4 mg/L (IUCLID)
Xylenes	1330-20-7	Water Flea	Acute	EC50 48 h water flea 3.82 mg/L; LC50 48 h Gammarus lacustris 0.6 mg/L

## 12.2. Persistence and Degradability

Data not available.

# Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

## 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)

**Sizes:** 5 mL, 50 mL

**UN Number:** UN1307

**Proper Shipping Name:** Xylenes

**Hazard Class:** 3

**Packing Group:** II

**Hazard Label(s):**



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

**Sizes:** 5 mL, 50 mL

**UN Number:** UN1307

**Proper Shipping Name:** Xylenes

**Hazard Class:** 3

**Packing Group:** II

**Hazard Label(s):**





## Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

### 14.3 Transportation of Dangerous Goods (TDG, Canada)

**Sizes:** 5 mL, 50 mL

**UN Number:** UN1307

**Proper Shipping Name:** XYLENES

**Hazard Class:** 3

**Packing Group:** II

**Hazard Label(s):**



## 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
Ethylbenzene	100-41-4	1000 lb final RQ; 454 kg final RQ
Xylenes	1330-20-7	100 lb final RQ; 45.4 kg final RQ

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

Chemical Name	CAS Number	List	Regulatory Information
Ethylbenzene	100-41-4	Emission Reporting	0.1 % de minimis concentration
Xylenes	1330-20-7	Emission Reporting	1.0 % de minimis concentration

## 15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Ethylbenzene	100-41-4	Present
Xylenes	1330-20-7	Present

## 15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Ethylbenzene	100-41-4	Environmental hazard
Xylenes	1330-20-7	Environmental hazard

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

Chemical Name	CAS Number	Regulatory Information
Ethylbenzene	100-41-4	sn 0851
Xylenes	1330-20-7	sn 2014

# Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

## 15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
Ethylbenzene	100-41-4	carcinogen, 6/11/2004
Ethylbenzene	100-41-4	54 µg/day NSRL (inhalation); 41 µg/day NSRL (oral)

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

Chemical Name	CAS Number	List	Status
Ethylbenzene	100-41-4	DSL	Present
Xylenes	1330-20-7	DSL	Present
Water	7732-18-5	DSL	Present

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

Chemical Name	CAS Number	Status
Ethylbenzene	100-41-4	Present (ACTIVE)
Xylenes	1330-20-7	Present (ACTIVE)
Water	7732-18-5	Present [XU] (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
Ethylbenzene	100-41-4	EINECS	202-849-4
Xylenes	1330-20-7	EINECS	215-535-7
Water	7732-18-5	EINECS	231-791-2

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

Chemical Name	CAS Number	Status
Ethylbenzene	100-41-4	Present [38114]
Xylenes	1330-20-7	Present [08052]
Water	7732-18-5	Present [32224]

# Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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

Chemical Name	CAS Number	List	Status
Ethylbenzene	100-41-4	Annex 1	Present [KE-13532]
Xylenes	1330-20-7	Annex 1	Present [KE-35427]
Water	7732-18-5	Annex 1	Present [KE-35400]

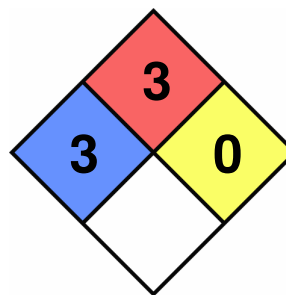
## 15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Ethylbenzene	100-41-4	(3)-28, (3)-60
Xylenes	1330-20-7	(3)-3, (3)-60
Water	7732-18-5	- (listed on Japanese Pharmacopoeia 8th Edition)

## SECTION 16: Other Information

### 16.1 National Fire Protection Associate (NFPA) Rating

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



### 16.2 Document Revision

**Last Revision Date:**  
 2026-05-23

## 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.