

# Safety Data Sheet

Issue Date: 07-Sep-2021

Revision Date: 29-July-2025

Version 5

## 1. IDENTIFICATION

### Product identifier

Product Name EarthTec® QZ

### Other means of identification

SDS # ESL-011

Registration Number(s) EPA Reg. No. 64962-1  
UN/ID No UN3082

### Recommended use of the chemical and restrictions on use

Recommended Use For industrial use.

### Details of the supplier of the safety data sheet

#### Supplier Address

Earth Science Laboratories, Inc.  
903 N 47th Street, Suite 105  
Rogers, AR 72756  
earthsciencelabs.com

### Emergency telephone number

Company Phone Number 1-800-962-1492  
Emergency Telephone INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Emergency Overview** This product is registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-EPA registered chemicals. See Section 15 for EPA information.

### Classification

Skin irritation	Category 2
Eye irritation	Category 2

### Signal Word

Warning

### Hazard statements

Causes skin irritation  
Causes eye irritation



**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary Statements – Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

IF ON SKIN (or hair): Wash with plenty of water. Specific treatment can be found in Section 4 - First Aid Measures of the SDS. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

**Other hazards**

Hazardous to the aquatic environment, acute hazard Category 1 and Hazardous to the aquatic environment, long-term hazard Category 2.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical name	CAS No	Weight-%
Copper sulfate pentahydrate	7758-99-8	18.25-21.75

\*\*If Chemical Name/CAS No. is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

**4. FIRST AID MEASURES****Description of first aid measures**

**Eye Contact** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

**Skin Contact** Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

**Inhalation** Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor/physician.

**Ingestion** Rinse mouth. Do NOT induce vomiting.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** May be harmful if swallowed. Causes skin irritation. Causes eye irritation.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physician** Probable mucosal damage may contraindicate the use of gastric lavage. Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact INFOTRAC 1-800-535-5053 for emergencies.

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** Not determined.

### Specific Hazards Arising from the Chemical

May react with high carbon metals to produce hydrogen gas, which can form an explosive mixture.

### 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.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

#### **Personal Precautions**

Caution should be exercised regarding personal safety and exposure to released product. Keep unnecessary people away, isolate hazard area and deny entry.

### Environmental precautions

#### **Environmental precautions**

See Section 12 for additional Ecological Information.

### Methods and material for containment and cleaning up

#### **Methods for Containment**

Prevent further leakage or spillage if safe to do so. Flush with water into a retaining area or container.

#### **Methods for Clean-Up**

Neutralize solution with bicarbonate of soda. Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Advice on Safe Handling**

Do not breathe dusts or mists. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing and eye/face protection.

### Conditions for safe storage, including any incompatibilities

#### **Storage Conditions**

Store the product in its original shipping container or a container made from plastic polymers. After opening, reseal any unused product in its original, airtight container. Keep the product in a safe, secure location, away from pets and out of the reach of children. Keep it locked up. Store the product away from excessive heat. Always store the product above 32°F (0°C). Do not freeze the product. Freezing can cause it to separate. Avoid contact with galvanized pipes and nylon storage or handling equipment.

#### **Incompatible Materials**

Strong bases. Strong reducing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Copper sulfate pentahydrate 7758-99-8	TWA: 1 mg/m <sup>3</sup> Cu dust and mist	TWA: 1 mg/m <sup>3</sup> Cu dust and mist	IDLH: 100 mg/m <sup>3</sup> Cu dust and mist TWA: 1 mg/m <sup>3</sup> Cu dust and mist

**Appropriate engineering controls**

**Engineering Controls** Showers. Eyewash stations. Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Wear eye/face protection.

**Skin and Body Protection** Wear long-sleeved shirt, long pants, and shoes plus socks. Chemical resistant protective gloves.

**Respiratory Protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid
<b>Color</b>	Blue
<b>Odor</b>	Minimal
<b>Melting point / freezing point</b>	Not determined
<b>Boiling point / boiling range</b>	220° F
<b>Flammability (Solid, Gas)</b>	Not applicable – Liquid
<b>Lower and upper explosion limit or lower and upper flammability limit</b>	Not determined
<b>Flash point</b>	Not determined
<b>Auto-ignition temperature</b>	Not determined
<b>Decomposition temperature</b>	Not determined
<b>pH</b>	0.2 – 0.3
<b>Kinematic viscosity</b>	Not determined
<b>Solubility – Water / Other solvents</b>	Completely soluble / Not determined
<b>Partition Coefficient – n-octanol/water (logarithmic value)</b>	Not determined
<b>Vapor pressure</b>	0.1 mm 68° F (Air = 1)
<b>Density and relative density</b>	Density: 1.165 – 1.185 g/kg / Rel. density 1.181 g/kg
<b>Relative vapor pressure</b>	Not determined
<b>Particle characteristics</b>	Not determined

## 10. STABILITY AND REACTIVITY

**Reactivity**

Not reactive under normal conditions.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Hazardous Polymerization** Will not occur.

**Conditions to Avoid**

Incompatible Materials.

**Incompatible materials**

Strong bases. Strong reducing agents.

**Hazardous decomposition products**

Sulfur dioxide. Sulfur trioxide.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

<b>Eye Contact</b>	Avoid contact with eyes.
<b>Skin Contact</b>	Avoid contact with skin.
<b>Inhalation</b>	Do not inhale.
<b>Ingestion</b>	May be harmful if swallowed.

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Copper sulfate pentahydrate 7758-99-8	= 472 mg/kg ( Rat )	> 8 g/kg ( Rabbit )	> 2.95 mg/L (Rat)

**Symptoms related to physical, chemical and toxicological characteristics**

<b>Symptoms</b>	Please see section 4 of this SDS for symptoms.
-----------------	--

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin irritation</b>	Causes skin irritation. OPPTS GUIDELINE 870.2500 - Acute Dermal Irritation Test was performed on this product which concluded that a 4-hr semi-occluded conditions to rabbits resulted in slight dermal irritation in five of six test animals. This test material was classified in Toxic Category III for dermal irritation. Regardless, a Category 2 classification was deemed appropriate.
<b>Eye irritation</b>	Causes eye irritation. OPPTS Guideline 870.2400 - Acute Eye Irritation Test was performed on this product which concluded that ocular administration produced irritation which cleared within 14 days resulting in a Category 2 classification.
<b>Carcinogenicity</b>	Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document.

<b>Oral LD50</b>	2,298.8506 mg/kg
<b>Dermal LD50</b>	36,818.40 mg/kg

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Hazardous to the aquatic environment, acute hazard Category 1 and Hazardous to the aquatic environment, long-term hazard Category 2.

**Component Information**

Chemical name	Algae/aquatic plants	Fish	Crustacea
Copper sulfate pentahydrate 7758-99-8		<i>Oncorhynchus mykiss</i> : Duration, 96 h; LC <sub>50</sub> , 0.09 - 0.19 mg/L; Test Type, Static <i>Oncorhynchus mykiss</i> : Duration, 96 h; LC <sub>50</sub> , 0.1478 - 0.165 mg/L; Test Type, Flow-through <i>Lepomis macrochirus</i> : Duration, 96 h; LC <sub>50</sub> , 0.66 - 1.15 mg/L; Test Type, Semi-static <i>Lepomis macrochirus</i> : Duration, 96 h; LC <sub>50</sub> , 0.96 - 1.8 mg/L; Test Type, Static <i>Pimephales promelas</i> : Duration, 96 h; LC <sub>50</sub> , 0.6752 mg/L; Test Type, Static	<i>Daphnia magna</i> : Duration, 48 h; LC <sub>50</sub> , 0.147 - 0.227 mg/L; Test Type, Static

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

No data available for this product.

**Mobility**

Not determined.

**Other Adverse Effects**

Not determined.

**13. DISPOSAL CONSIDERATIONS****Waste Treatment Methods****Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**California Hazardous Waste Status**

Chemical name	California Hazardous Waste Status
Copper sulfate pentahydrate 7758-99-8	Toxic

**14. TRANSPORT INFORMATION**

**Note:** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**

UN/ID No	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s. (Cupric Sulfate)
Hazard class	9
Packing Group	III
Reportable Quantity (RQ)	Cupric sulfate (10 lbs)
Marine Pollutant	This material ships as a marine pollutant when each individual container exceeds 119 gallons (882 lbs).

**IATA**

<b>UN number</b>	UN3082
<b>Proper Shipping Name</b>	Environmentally hazardous substance, liquid, n.o.s. (Cupric Sulfate)
<b>Transport hazard class(es)</b>	9
<b>Packing Group</b>	III
<b>Description</b>	This material ships as a marine pollutant when inner packagings exceed 5L or 5 kg.

**IMDG**

<b>UN number</b>	UN3082
<b>Proper Shipping Name</b>	Environmentally hazardous substance, liquid, n.o.s. (Cupric Sulfate)
<b>Transport hazard class(es)</b>	9
<b>Packing Group</b>	III
<b>Marine Pollutant</b>	This material ships as a marine pollutant when inner packagings exceed 5L or 5 kg.

**15. REGULATORY INFORMATION****International Inventories**

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Copper sulfate pentahydrate	X				X	X		X	X

**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

**US Federal Regulations****CERCLA**

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Copper sulfate pentahydrate 7758-99-8	10 lbs	10 lbs	10 lbs

**SARA 313**

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Copper sulfate pentahydrate - 7758-99-8	7758-99-8	18.25-21.75	1.0

**CWA (Clean Water Act)**

Chemical name	CWA – Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA – Hazardous Substances
Copper sulfate pentahydrate		X		

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Copper sulfate pentahydrate 7758-99-8	X		X

**EPA Pesticide Registration Number** EPA Reg. No. 64962-1

**EPA Statement**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**EPA Pesticide Label**

Please see EPA label for additional information

**Difference between SDS and EPA pesticide label**

Please see EPA label for additional information

## 16. OTHER INFORMATION

<b><u>NFPA</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	2	0	0	X
<b><u>HMIS</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical hazards</b>	<b>Personal Protection</b>
	2	0	1	X

**Issue Date:** 07-Sep-2021  
**Revision Date:** 29-July-2025  
**Revision Note:** Comprehensive Review Updates

**Maximum Use Limit (MUL) associated with NSF certification is 19 mg/L, which does not supersede the product label.**

**Disclaimer**

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

**End of Safety Data Sheet**