

SECTION 1: Identification

Product identifier	
Product name	Copper Free 0.2 – Reagent E
Product number	R-8013E
Recommended use and restrictions	To be used in accordance with manufacturer instructions or under the direct guidance of the manufacturer.
Manufacturer	Taylor Water Technologies LLC 31 Loveton Circle Sparks, MD 21152 Local: (410) 472-4340 – 8am – 5pm EST Toll-free: (800) 837-8548 – 8am – 5pm EST
Emergency telephone number	
CHEMTREC, United States	1-800-424-9300 – 24-hour service
CHEMTREC, International	+1 703-527-3887 – 24-hour service

SECTION 2: Hazard(s) identification

Physical hazards	Self-heating substances and mixtures	Category 1
Health hazards	Eye damage/irritation	Category 1
	Acute toxicity, oral	Category 4
Environmental hazards	Not classified	

Label elements

Hazard pictograms



Signal word	Danger
Hazard statements	Self-heating; may catch fire. Causes serious eye damage. Harmful if swallowed.
Precautionary statements	
Prevention	Keep cool. Protect from sunlight. Wear protective gloves/eye protection/face protection. Wash skin thoroughly after handling. Do not eat, drink, or smoke when using this product.
Response	IF SWALLOWED: Call a physician or poison control center if you feel unwell. Rinse mouth. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a physician or poison control center.
Storage	Maintain air gap between stacks/pallets. Store away from other materials. Keep tightly capped. Store out of direct sunlight between 36°F–85°F.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazards not otherwise classified	Not applicable

SECTION 3: Composition/information on ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	% w/w
Sodium hydrosulfite	Disodium dithionite; Sodium hydrosulphite	7775-14-6	90-95
Calcium oxide	Quick lime	1305-78-8	1-5
Sodium bisulfite	Sodium hydrogensulfite; Sodium bisulphite	7631-90-5	1-5

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4: First-aid measures

If inhaled

Remove individual to fresh air. Seek medical advice/attention if breathing becomes difficult or if respiratory irritation develops. Give oxygen or artificial respiration if needed.

In case of skin contact

Immediately flush skin with plenty of water for at least 20 minutes. If clothing comes in contact with the product, the clothing should be removed and laundered before reuse. Seek medical advice/attention if irritation develops.

In case of eye contact

Immediately flush eyes with plenty of water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist or in all cases of concern, seek medical advice/attention.

If swallowed

Call a physician or poison control center immediately. Rinse mouth. Never give anything by mouth to a person who is unconscious or is having convulsions. Do NOT induce vomiting unless directed by physician. If vomiting occurs, keep head low so that stomach content does not get into the lungs. If symptoms persist or in all cases of concern, seek medical advice.

Most important symptoms and effects, both acute and delayed

Direct eye contact may cause serious eye damage. Scarring or permanent damage, including blindness, could result. Symptoms may include pain, redness or swelling, tearing of the eyes or blurred vision. Direct skin contact may cause temporary irritation. Symptoms may include redness or itching. Inhalation may cause respiratory irritation, such as coughing. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

Refer to section 11 of the SDS for delayed and immediate effects and chronic effects from short- and long-term exposure.

Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

General information

Ensure medical personnel are aware of the material(s) involved and take precautions to protect themselves.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media	Small fire: Dry chemical powder or dry sand. Large fire: Use flooding amounts of water to stop the reaction.
Unsuitable extinguishing media	Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Specific hazards arising from the substance or mixture

Fire hazard	Addition of small amounts of water may cause self-ignition. May re-ignite after fire is extinguished.
Explosion hazard	Not explosive
Reactivity	Decomposes when in contact with water, evolving heat.
Hazardous combustion products	Calcium oxides, carbon oxides, sodium oxides, sulfur oxides.

Advice for firefighters

Precautionary measures	Exercise caution when fighting any chemical fire; hazardous fumes will be present.
Firefighting equipment/instructions	Wear full protective gear. Evacuate the area promptly. Fight fire from upwind to avoid exposure to combustion products. Do not get water inside container. Cool containers with flooding quantities of water until well after fire is out. If it can be done safely, move undamaged containers away from fire area.
Protection during firefighting	Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	Refer to section 9 of the SDS for flammability properties.

SECTION 6: Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during cleanup. Do not breathe dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protective equipment, refer to section 8 of the SDS.

Environmental precautions

Avoid discharge into drains, watercourses, or onto the ground.

Methods and material for containment and cleaning up

Avoid dispersal of dust in air (i.e., clearing dust surfaces with compressed air). Sweep up or vacuum up spillage and collect in suitable container for later disposal. Following product recovery, flush area with water to remove residual contamination. Never return spills to original containers for reuse. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Reference to other sections

For exposure controls and personal protection, refer to section 8 of the SDS. For waste disposal, refer to section 13 of the SDS.

SECTION 7: Handling and storage

Precautions for safe handling

Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. For personal protective equipment, refer to section 8 of the SDS. Keep away from incompatibles. Observe good industrial hygiene practices. Label containers appropriately.

Conditions for safe storage, including any incompatibilities

Maintain air gap between stacks/pallets. Store away from other materials. Keep tightly capped. Store out of direct sunlight between 36°F–85°F. Store away from incompatible materials (refer to section 10 of the SDS).

SECTION 8: Exposure controls/personal protection

Occupational exposure limits

US ACGIH Threshold Limit Values

Components	Type	Value
Calcium oxide (CAS 1305-78-8)	TLV-TWA	2 mg/m ³

US NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m ³

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m ³ (5 ppm)

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure controls

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eyewash facilities and emergency shower must be available when handling this product.

Personal protective equipment

Eye/face protection	Wear appropriate chemical safety goggles.
Skin protection	Wear appropriate chemical-resistant gloves.
Body protection	Wear appropriate protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fumes at levels exceeding the exposure limits. Advice should be sought from respiratory protection suppliers.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Solid
Form	Powder
Color	White
Odor	Sulfur
Odor threshold	No data available
pH	No data available
Evaporation rate	No data available
Melting point	No data available
Freezing point	No data available
Initial boiling point (boiling range)	No data available
Flash point	No data available
Specific gravity	No data available
Auto-ignition temperature	No data available

Decomposition temperature	No data available
Flammability (solid, gas)	Combustible solid
Upper Flammability Limit	No data available
Lower Flammability Limit	No data available
Vapor pressure	No data available
Relative vapor density	No data available
Solubility	Soluble in all proportions
Partition coefficient (n-octanol/water)	No data available
Viscosity,	No data available
Explosive properties	Not explosive
Oxidizing properties	Not oxidizing

SECTION 10: Stability and reactivity

Reactivity	Small amounts of water may cause self-ignition.
Chemical stability	Stable under recommended handling and storage conditions (refer to section 7 of the SDS).
Possibility of hazardous reactions	Exposure to moisture. Closed containers may rupture violently when heated.
Conditions to avoid	Heat. Moisture. Contact with incompatible materials. Do not allow water to enter the container. Do not use in areas without adequate ventilation.
Incompatible materials	Strong acids, strong oxidizing agents, water.
Hazardous decomposition products	Sulfur oxides.

SECTION 11: Toxicological information

Information on toxicological effects

Inhalation	Avoid inhalation of this product. Use in a well-ventilated area.
Skin contact	Protect exposed skin from contact. Use caution to avoid contact.
Eye contact	Avoid close eye contact; use caution to avoid accidental contact. Wear eye protection.
Ingestion	Avoid accidental ingestion by observing good hygiene practices. Wash hands thoroughly after handling this product.

Symptoms related to the physical, chemical, and toxicological characteristics

Direct eye contact may cause serious eye damage. Harmful if swallowed. Refer to section 4 of the SDS for most important symptoms and effects.

Delayed and immediate effects and chronic effects from short- and long-term exposure

Acute toxicity This product is classified as an acute toxicity hazard, oral route. Acute toxicity estimate (ATE) has been calculated based on chapter 3 of GHS.

Product acute toxicity estimate (ATE)

ATEmix (Oral)	1470 mg/kg
ATEmix (Dermal)	> 2000 mg/kg
ATEmix (Inhalation)	> 5 mg/L, dust

<u>Component(s)</u>	<u>Species</u>	<u>Acute toxicity data</u>
Calcium oxide (CAS 1305-78-8)		
LD50 (Oral)	Rat	2000 mg/kg (source: ECHA)
LD50 (Dermal)	Rabbit	No data available
LC50 (Inhalation)	Rat	6 mg/L, dust (source: ECHA)
Sodium bisulfite (CAS 7631-90-5)		
LD50 (Oral)	Rat	1420-3200 mg/kg (source: ECHA)
LD50 (Dermal)	Rat	2000 mg/kg (source: ECHA)
LC50 (Inhalation)	Rat	5.5 mg/L, dust (source: ECHA)
Sodium hydrosulfite (CAS 7775-14-6)		
LD50 (Oral)	Rat	1420-3200 mg/kg (source: ECHA)
LD50 (Dermal)	Rat	2000 mg/kg (source: ECHA)

LC50 (Inhalation)	Rat	5.5 mg/L, dust (source: ECHA)
Skin corrosion/irritation	No data available	
Serious eye damage/eye irritation	Causes serious eye damage	
Respiratory sensitization	No data available	
Skin sensitization	No data available	
Germ cell mutagenicity	No data available	

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

Not classified

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096)

Not regulated

US National Toxicology Program (NTP) Report on Carcinogens

Not classified

Reproductive toxicity	No data available
Specific target organ toxicity (single exposure)	No data available
Specific target organ toxicity (repeated exposure)	No data available
Aspiration hazard	Not applicable

SECTION 12: Ecological information

Ecotoxicity	This product is not classified as environmentally hazardous.
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	Large or frequent spills can have a harmful or damaging effect on the environment.

SECTION 13: Disposal considerations

Collect and reclaim or dispose of in sealed containers at a licensed waste disposal site. Since emptied containers may retain product residue, follow label warnings even after container is emptied. This material and its container must be disposed of in a safe manner. Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

DOT

UN number	1384
UN proper shipping name	Sodium dithionite
Reportable Quantity	None
Class (Subsidiary risk)	4.2
Label(s)	4.2
Packing group	II
Special provisions	A19, A20, IB6, IP2, T3, TP33, W31
Packaging exceptions	None
Packaging, non-bulk	212

IATA

UN number	1384
UN proper shipping name	Sodium dithionite
Class (Subsidiary risk)	4.2
Packing group	II
Special provisions	None

IMDG

UN number	1384
UN proper shipping name	Sodium dithionite
Class (Subsidiary risk)	4.2

Packing group II

Environmental hazards

Marine pollutant No

EmS F-A, S-J

Special precautions for user Read safety instructions, SDS, and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This substance/mixture is not intended to be transported in bulk.

DOT hazard pictograms



IATA/IMDG hazard pictograms



SECTION 15: Regulatory information

US federal regulations

CERCLA Hazardous Substance (40 CFR 302.4)

Not regulated

SARA 302 Extremely Hazardous Substance (40 CFR 355 Appendices A / B)

Not regulated

SARA 304 Emergency Release Notification

Not regulated

SARA 311/312 Hazardous Chemical

<u>Chemical name</u>	<u>CAS number</u>
Calcium oxide	1305-78-8
Sodium bisulfite	7631-90-5
Sodium hydrosulfite	7775-14-6

SARA 313 (TRI reporting)

Not regulated

TSCA Section 8(b) Chemical Inventory

All components are on the U.S. EPA TSCA Inventory list.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs)

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated

Safe Drinking Water Act (SDWA)

Not regulated

US state regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (California Proposition 65)

Not regulated

Massachusetts Right-to-Know Act

<u>Chemical name</u>	<u>CAS number</u>
Calcium oxide	1305-78-8

Sodium bisulfite 7631-90-5

Sodium hydrosulfite 7775-14-6

New Jersey Worker and Community Right-to-Know Act

<u>Chemical name</u>	<u>CAS number</u>
Calcium oxide	1305-78-8
Sodium bisulfite	7631-90-5
Sodium hydrosulfite	7775-14-6

Pennsylvania Worker and Community Right-to-Know Act

<u>Chemical name</u>	<u>CAS number</u>
Calcium oxide	1305-78-8
Sodium bisulfite	7631-90-5
Sodium hydrosulfite	7775-14-6

Rhode Island Right-to-Know Act

<u>Chemical name</u>	<u>CAS number</u>
Calcium oxide	1305-78-8
Sodium bisulfite	7631-90-5
Sodium hydrosulfite	7775-14-6

SECTION 16: Other information

NFPA Rating

Health hazard	2
Fire hazard	1
Reactivity	2
Specific	W

Disclaimer

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9/12/2023

Revision information:

This document embodies significant change(s) that may impact classification, safe handling, or health information for the associated product(s). The information contained herein should be reviewed in its entirety before handling material.

Supersedes revision dated May 2016.