



Safety Data Sheet CE LIQUID MIX

SECTION 1: Identification

1.1 GHS Product identifier

Product name CE LIQUID MIX

1.2 Recommended use of the chemical and restrictions on use

Inorganic/Organic Chemical Fertilizer Mixture

1.3 Supplier's details

Name CAROLINA EASTERN, INC.
Address 347 McAllister Mill Road
Scranton SC 29591
USA

Telephone 843-389-2761

1.4 Emergency phone number

CHEMTREC Administrative Office Telephone number: 1-800-262-8200

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Eye damage/irritation (C.4.5), Cat. 2A
- Skin corrosion/irritation (C.4.4), Cat. 2

2.2 GHS label elements, including precautionary statements.

Pictograms



1. Exclamation mark

Signal word

Warning

Hazard statement(s)

Safety Data Sheet

CE LIQUID MIX

Causes serious eye irritation.
Causes skin irritation.
May cause respiratory irritation.
May be harmful if inhaled.
May be harmful if swallowed.

Precautionary statement(s)

P264	Wash thoroughly after handling.
P280	Wear eye protection/face protection/protective gloves/protective clothing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water.
P321	Specific treatment (see on this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P301+P312	IF SWALLOWED: Call a POISON CENTER /doctor if you feel unwell,
P330	Rinse mouth.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. MANGANESE (II) SULFATE MONOHYDRATE

Concentration	9.4 % (weight)
CAS no.	10034-96-5

2. Zinc sulfate monohydrate

Concentration	8.3 % (weight)
CAS no.	7733-02-0

- Acute toxicity, oral (C.4.1), Cat. 4
- Eye damage/irritation (C.4.5), Cat. 1
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

3. Copper(II) sulfate pentahydrate

Concentration	0.5 % (weight)
CAS no.	7758-99-8

- Acute toxicity, oral (C.4.1), Cat. 4

Safety Data Sheet

CE LIQUID MIX

- Eye damage/irritation (C.4.5), Cat. 1
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
SCLs/M-factors/ATEs	M=10

4. Citric acid - Proprietary blend

Concentration Not specified.

5. Water/Aqua/Eau

Concentration Not specified.
CAS no. 7732-18-5

Trade secret statement (OSHA 1910.1200(i))

*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
In case of eye contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention/advice.
If swallowed	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms/effects, acute and delayed.

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Safety Data Sheet

CE LIQUID MIX

5.2 Specific hazards arising from the chemical.

Copper(II) sulfate pentahydrate: Sulphur oxides, Copper oxides

Citric acid: Carbon oxides

Hydrogen chloride, hydrogen fluoride, oxides of nitrogen, ammonia, oxides of phosphorus, hydrogen sulfide.

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary. Do not use direct water stream. May spread fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

6.3 Methods and materials for containment and cleaning up.

Soak up with inert absorbent material (e.g., sand, silica gel). Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

7.2 Conditions for safe storage, including any incompatibilities.

Keep container tightly closed in a dry place. Store away from direct sunlight or ultraviolet light.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Copper(II) sulfate pentahydrate (CAS: 7758-99-8 EC: 231-847-6)

REL-TWA (Inhalation): 1 mg/m³ (NIOSH)

8.2 Appropriate engineering controls

Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product. Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Safety Data Sheet

CE LIQUID MIX

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Bright Green
Color	Bright Green
Odor	Bland Odor
Odor threshold	Not Available
Melting point/freezing point	Not Available
Boiling point or initial boiling point and boiling range	Not Available
Flammability	Not Available
Lower and upper explosion limit/flammability limit	Not Available
Flash point	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
pH	1.5-2.0
Kinematic viscosity	Not Available
Solubility	Appreciable
Partition coefficient n-octanol/water (log value)	Not Available
Vapor pressure	Not Available
Evaporation rate	Not Available
Density and/or relative density	9.8 lbs./gal, 1.18 (SG)
Relative vapor density	Not Available

SECTION 10: Stability and reactivity

10.1 Reactivity

None under normal use conditions. Sensitive to extreme temperatures.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None that are known.

10.4 Conditions to avoid.

Safety Data Sheet

CE LIQUID MIX

Exposure to elevated temperatures can cause product to decompose. Avoid direct sunlight or ultraviolet sources.

10.5 Incompatible materials

Copper(II) sulfate pentahydrate: Powdered metals, Anhydrous copper(II) sulfate, reacts violently with: hydroxylamine, Magnesium.

Citric acid: Oxidizing agents, Bases, Reducing agents, Nitrates.

10.6 Hazardous decomposition products

SO₂ may evolve at high temperatures.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

None that are known.

Skin corrosion/irritation

May cause skin irritation.

Serious eye damage/irritation

May cause eye irritation.

Respiratory or skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

No data available

Carcinogenicity

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Reproductive toxicity

No data available

Specific target organ toxicity (STOT) - single exposure

No data available

Specific target organ toxicity (STOT) - repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12: Ecological information

Toxicity

No data available on product

Persistence and degradability

Material is readily biodegradable.

Safety Data Sheet

CE LIQUID MIX

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Drift or runoff may adversely affect non-target plants. Do not apply directly to water. Do not contaminate water when disposing of equipment wash water. Do not apply when weather conditions favor drift from target area.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Packaging disposal

Dispose of as unused product.

Other disposal recommendations

Do not dump into any sewers, on the ground or into any body of water.

SECTION 14: Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

15.1 Safety, health, and environmental regulations specific for the product in question

Massachusetts Right To Know Components

Chemical name: Cupric sulfate

CAS number: 7758-98-7

New Jersey Right To Know Components

Chemical name: Cupric sulfate

CAS number: 7758-98-7

Pennsylvania Right To Know Components

Chemical name: Cupric sulfate

CAS number: 7758-98-7

Canadian Domestic Substances List (DSL)

Chemical name: Sulfuric acid copper(2++) salt (1:1)

CAS: 7758-98-7

Safety Data Sheet

CE LIQUID MIX

Canadian Domestic Substances List (DSL)

Chemical name: Sulfuric acid, zinc salt (1:1), monohydrate
CAS: 7446-19-7

New Jersey Right To Know Components

Citric acid
CAS-No. 77-92-9

Pennsylvania Right To Know Components

Citric acid
CAS-No. 77-92-9

SARA 311/312 Hazards

Acute Health Hazard

Canadian Domestic Substances List (DSL)

Chemical name: 1,2,3-Propanetricarboxylic acid, 2-hydroxy-
CAS: 77-92-9

Canadian Domestic Substances List (DSL)

Chemical name: 1,2,3-Propanetricarboxylic acid, 2-hydroxy-, monohydrate
CAS: 5949-29-1

HMIS Rating

Health	1
Flammability	0
Physical hazard	0
Personal protection	

NFPA Rating

Health hazard	1
Fire hazard	0
Reactivity hazard	0
Special hazard	

SECTION 16: Other information

Certification Date: November 29, 2023

16.1 Further information/disclaimer

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.

16.2 Preparation information

Prepared by IMS Labs, - Crop Excellence Regulatory Consultant