

**SOURCE TO SOURCE**  
**Safety Data Sheet**  
**Phloem 2204**

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**SECTION 1: Identification**

**1.1 Product identifier**

Product name Phloem 2204

Product number  
Brand Phloem

**1.3 Recommended use of the chemical and restrictions on use**  
Micronutrient foliar spray

**1.4 Supplier's details**

Name Source to Source  
Address 3233 South I Street  
Tulare, CA 93274  
United States

Telephone 866.727.4572

**1.5 Emergency phone number(s)**

1.800.424.9300

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**SECTION 2: Hazard identification**

**2.1 Classification of the substance or mixture**

- Eye damage (chapter 3.3), Cat. 1
- Skin corrosion (chapter 3.2), Cat. 1
- Specific target organ toxicity, repeated exposure (chapter 3.9), Cat. 2

**2.2 GHS label elements, including precautionary statements**

**Pictogram**



**Signal word**

**Danger**

**Hazard statement(s)**

H314

Causes severe skin burns and eye damage

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H318 Causes serious eye damage  
H373 May cause damage to organs through prolonged or repeated exposure

### Precautionary statement(s)

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 Wash thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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.  
P310 Immediately call a POISON CENTER/doctor/...  
P314 Get medical advice/attention if you feel unwell.  
P363 Wash contaminated clothing before reuse.  
P405 Store locked up.  
P501 Dispose of contents/container to local and federal regulations.

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## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Hazardous components

##### 1. CITRIC ACID

Concentration 0.37 - 0.44 % (Weight)  
CAS no. 77-92-9

##### 2. Zinc Sulphate Monohydrate

Concentration 5.81 - 5.85 % (Weight)  
CAS no. 7446-19-7

##### 3. MANGANESE (II) SULFATE MONOHYDRATE

Concentration 6.75 - 6.8 % (Weight)  
CAS no. 10034-96-5

##### 4. UREA

Concentration 0.5172 - 0.5289 % (Weight)  
CAS no. 57-13-6

##### 5. Biuret

Concentration 0.0078 % (Weight)  
CAS no. 108-19-0

##### 6. Iron (II) sulfate heptahydrate

Concentration 1.92 - 2.13 % (Weight)  
CAS no. 7782-63-0

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### 7. Proprietary, non hazardous material

Concentration 0.96 - 0.97 % (Weight)

### 8. inert ingredients

Concentration 79.62 - 79.62 % (Weight)

### 9. D-glycero-D-gulo-Heptonic acid, sodium salt (1:1)

Concentration 2.31 - 3.47 % (Weight)

CAS no. 13007-85-7

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## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

If inhaled	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
In case of skin contact	Wash off with soap and plenty of water. Get medical attention if symptoms occur.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
If swallowed	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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## SECTION 5: Fire-fighting measures

### 5.1 Suitable extinguishing media

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

### 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### 6.3 Methods and materials for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. SMALL SPILLS: Contain and absorb with absorbent material and place into containers for later disposal. Wash site of spillage thoroughly with water. LARGE SPILLS: Dike far ahead of spill to prevent further

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movement. Recover by pumping or by using a suitable absorbent material and place into containers for later disposal. Dispose in suitable waste container.

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Ensure adequate ventilation. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. For precautions see section 2.2.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Triple rinse and dispose of containers according to local and federal regulations.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

1. Zinc Sulphate Monohydrate (CAS: 7446-19-7)

TWA (Inhalation): 5 mg/m<sup>3</sup> 8 hours; USA (OSHA)  
(respirable fraction)

2. Zinc Sulphate Monohydrate (CAS: 7446-19-7)

TWA (Air): 15 mg/m<sup>3</sup> 8 hours; USA (OSHA)  
(total dust)

3. MANGANESE (II) SULFATE MONOHYDRATE (CAS: 10034-96-5)

TWA (Inhalation): 0.1 mg/m<sup>3</sup>; USA (ACGIH)  
inhalable fraction

4. MANGANESE (II) SULFATE MONOHYDRATE (CAS: 10034-96-5)

TWA (Inhalation): 0.02 mg/m<sup>3</sup>; USA (ACGIH)  
respirable fraction

5. MANGANESE (II) SULFATE MONOHYDRATE (CAS: 10034-96-5)

STEL (Inhalation): 3 mg/m<sup>3</sup>; USA (NIOSH)  
fume

6. MANGANESE (II) SULFATE MONOHYDRATE (CAS: 10034-96-5)

TWA (Inhalation): 1 mg/m<sup>3</sup>; USA (NIOSH)  
fume

7. UREA (CAS: 57-13-6)

TWA (Inhalation): 10 mg/m<sup>3</sup>; USA (ACGIH)  
inhalation particulate

8. UREA (CAS: 57-13-6)

TWA (Inhalation): 5 mg/m<sup>3</sup>; USA (OSHA)  
respirable (particulate) fraction: urea

#### 8.2 Appropriate engineering controls

Good general ventilation 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.

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

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### Eye/face protection

Wear safety goggles.

### Skin protection

Wear appropriate gloves.

### 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 particle respirator type N100 (US) or type P3 (EN 143) 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

Follow best practice for site management and disposal of waste.

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## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	brown, liquid
Odor	SWEET
Odor threshold	No data available
pH	1.73
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility(ies)	100%
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

Stable under normal temperatures and pressures.

### 10.3 Possibility of hazardous reactions

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Hazardous polymerization will not occur.

### 10.4 Conditions to avoid

No data available.

### 10.5 Incompatible materials

No data available.

### 10.6 Hazardous decomposition products

No data available.

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## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

No data available.

#### Skin corrosion/irritation

Skin corrosion.

#### Serious eye damage/irritation

Eye Damage.

#### Respiratory or skin sensitization

No data available.

#### Germ cell mutagenicity

No data available.

#### Carcinogenicity

No data available.

#### Reproductive toxicity

No data available.

#### Summary of evaluation of the CMR properties

No data available.

#### STOT-single exposure

No data available.

#### STOT-repeated exposure

No data available.

#### Aspiration hazard

No data available.

#### Additional information

No data available.

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## SECTION 12: Ecological information

### Toxicity

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No data available.

### **Persistence and degradability**

No data available.

### **Bioaccumulative potential**

No data available.

### **Mobility in soil**

No data available.

### **Results of PBT and vPvB assessment**

No data available.

### **Other adverse effects**

No data available.

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## SECTION 13: Disposal considerations

### **Disposal of the product**

Dispose of content and/or container in accordance with local, regional, national and/or international regulations.

### **Disposal of contaminated packaging**

Dispose of content and/or container in accordance with local, regional, national and/or international regulations.

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## SECTION 14: Transport information

### **DOT (US)**

**Identification Number:** UN3082

**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS ZINC SULFATE, MANGANESE SULFATE, FERROUS SULFATE)

**Hazard Class:** 9

**Packing Group:** III

**Label Required:** Class 9

**Reportable Quantity (RQ):** 1000#(Zinc Sulfate), 1000# (Ferrous Sulfate)

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## SECTION 15: Regulatory information

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

#### **Massachusetts Right To Know Components**

Chemical name: Ferrous sulfate

CAS number: 7782-63-0

#### **Pennsylvania Right To Know Components**

Chemical name: Ferrous sulfate

CAS number: 7782-63-0

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## SECTION 16: Other information

Reasonable care has been taken in the preparation of this information, but the supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the

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use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Safety Data Sheet before handling product.