

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product form: Mixture

Product name: MicroPower

Product code: 00131

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

PowerAG

2213 Leabrook Road, Lancaster PA 17601

1-800-842-2578 powerag.com

1.4. Emergency telephone number

Emergency number: 1-800-424-9300 ChemTrec

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

GHS-US classification

Skin Irrit. 2: H315

Eye Irrit. 2B: H320

Aquatic Acute 3: H402

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US):



GHS07

Signal word (GHS-US): Warning

Hazard statements (GHS-US):

H315: Causes skin irritation

H320: Causes eye irritation

H402: Harmful to aquatic life

Precautionary statements (GHS-US):

P264: Wash . . . thoroughly after handling

P273: Avoid release to the environment

P280: Wear protective gloves/protective clothing/eye protection/face protection

P302+P352: IF ON SKIN: Wash with plenty of soap and water

P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P321: Specific treatment (see ... on this label)

P332+P313: If skin irritation occurs: Get medical advice/attention

P337+P313: If eye irritation persists: Get medical advice/attention

P362: Take off contaminated clothing and wash before reuse

P501: Dispose of contents/container to ...

2.3. Other hazards

No additional information available.

2.4. Unknown acute toxicity (GHS-US)

No data available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable.

Full text of H-phrases: See section 16.

3.2. Mixture

Name	Product identifier	%	GHS-US classification
citric acid	(CAS No)77-92-9	1-10	Aquatic Acute 3, H402
zinc sulfate, monohydrate	(CAS No)7446-19-7	1-10	Aquatic Acute 1, H400

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion: Rinse mouth. DO NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries: Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available.

5.3. Advice for firefighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

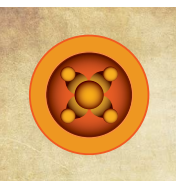
6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.



7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition. Direct sunlight.

Storage temperature: ≥ 25 (5–42) °C

7.3. Specific end use(s)

No additional information available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment: Avoid all unnecessary exposure.

Hand protection: Wear protective gloves.

Eye protection: Chemical goggles or safety glasses.

Respiratory protection: Wear appropriate mask.

Other information: Do not eat, drink, or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Color: Brown

Odor: Characteristic odor

Odor threshold: No data available.

pH: ≤ 2

Relative evaporation rate (butylacetate=1): No data available.

Melting point: No data available.

Freezing point: ≤ 0 °C

Boiling point: ≥ 100 °C

Flash point: None

Self ignition temperature: No data available.

Decomposition temperature: No data available.

Flammability (solid, gas): No data available.

Vapor pressure: No data available.

Relative vapor density at 20 °C: No data available.

Relative density: No data available.

Density: ≥ 1.162 g/ml

Solubility: Soluble in water.

Log Pow: No data available.

Log Kow: No data available.

Viscosity, kinematic: No data available.

Viscosity, dynamic: No data available.

Explosive properties: No data available.

Oxidizing properties: No data available.

Explosive limits: No data available.

9.2. Other information

VOC content: ≤ 10 g/l

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

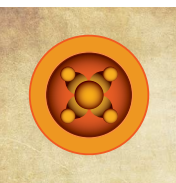
No additional information available.

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.



10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Fumes. Carbon monoxide. Carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity: Not classified.

citric acid (77-92-9)

LD50 oral rat: 3000 mg/kg (Rat)

Skin corrosion/irritation: Causes skin irritation.

pH: ≤ 2

Serious eye damage/irritation: Causes eye irritation.

pH: ≤ 2

Respiratory or skin sensitization: Not classified.

Germ cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: Not classified.

Specific target organ toxicity (single exposure): Not classified.

Specific target organ toxicity (repeated exposure): Not classified.

Aspiration hazard: Not classified.

Potential Adverse human health effects and symptoms: Based on available data, the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - water: Harmful to aquatic life.

citric acid (77-92-9)

LC50 fishes 1: 2600 mg/l (48 h; *Leuciscus idus*; pH = 7)

EC50 Daphnia 1: 120 mg/l (72 h; *Daphnia magna*; pH < 7)

LC50 fish 2: 1516 mg/l (96 h; *Lepomis macrochirus*)

EC50 Daphnia 2: 85 mg/l (*Daphnia magna*)

Threshold limit algae 1: 80 mg/l (192 h; *Microcystis aeruginosa*; Reproduction)

Threshold limit algae 2: 640 mg/l (168 h; *Scenedesmus quadricauda*)

zinc sulfate, monohydrate (7446-19-7)

LC50 fishes 1: 1.7 mg/l (96 h; *Poecilia reticulata*; Anhydrous form)

EC50 Daphnia 1: 0.56 mg/l (48 h; *Daphnia magna*; Anhydrous form)

LC50 fish 2: 2.4 mg/l (96 h; *Salmo gairdneri* (*Oncorhynchus mykiss*); Anhydrous form)

EC50 Daphnia 2: 1 mg/l (24 h; *Daphnia magna*; Anhydrous form)

12.2. Persistence and degradability

MicroPower

Persistence and degradability: Not established.

citric acid (77-92-9)

Persistence and degradability: Readily biodegradable in water. Biodegradable in the soil.

Biochemical oxygen demand (BOD): 0.420 g O₂/g substance

Chemical oxygen demand (COD): 0.728 g O₂/g substance

ThOD: 0.686 g O₂/g substance

BOD (% of ThOD): (20 day(s)) 0.89

zinc sulfate, monohydrate (7446-19-7)

Persistence and degradability: Biodegradability: not applicable.

Biochemical oxygen demand (BOD): Not applicable

Chemical oxygen demand (COD): Not applicable

ThOD: Not applicable

BOD (% of ThOD): Not applicable



12.3. Bioaccumulative potential

MicroPower

Bioaccumulative potential: Not established.
citric acid (77-92-9)

Log Pow: -1.72 (Experimental value)

Bioaccumulative potential: Bioaccumulation: not applicable.
zinc sulfate, monohydrate (7446-19-7)

BCF fish 1: 59 - 242 (Cyprinus carpio; Anhydrous form)

BCF fish 2: 59 - 242 (Cyprinus carpio; Test duration: 8 weeks)

Bioaccumulative potential: Bioaccumable.

12.4. Mobility in soil

No additional information available.

12.5. Other adverse effects

Other information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.

Dispose of contents/container to . . .

Ecology—waste materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

In accordance with DOT

No dangerous goods in sense of transport regulations.

Additional information:

Other information: No supplementary information available.

ADR: Transport document description.

Transport by sea: No additional information available.

Air transport: No additional information available.

SECTION 15: REGULATORY INFORMATION

15.1. US Federal regulations

citric acid (77-92-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

zinc sulfate, monohydrate (7446-19-7)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA: No additional information available.

EU-Regulations: No additional information available.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC: Not classified.

15.2.2. National regulations

No additional information available.

15.3. US State regulations

No additional information available.

SECTION 16: OTHER INFORMATION

Other information: None.

Full text of H-phrases: See section 16:

Aquatic Acute 1: Hazardous to the aquatic environment — AcuteHazard, Category 1

Aquatic Acute 3: Hazardous to the aquatic environment — AcuteHazard, Category 3

Eye Irrit. 2B: Serious eye damage/eye irritation, Category 2B

Skin Irrit. 2: Skin corrosion/irritation, Category 2

H315: Causes skin irritation

H320: Causes eye irritation

H400: Very toxic to aquatic life

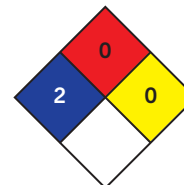
H402: Harmful to aquatic life

NFPA health hazard: 2—Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard: 0—Materials that will not burn.

NFPA reactivity: 0—Normally stable, even under fire exposure conditions, and are not reactive with water.

NFPA specific hazard: None.



HMIS III Rating

Health: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability: 0 Minimal Hazard

Physical: 0 Minimal Hazard

Personal Protection: C

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.