

**SAFETY DATA SHEET (SDS)**

Agro-K Corporation

**I. PRODUCT AND COMPANY IDENTIFICATION**

Product Name: System-Ready  
 Common Name: Liquid fertilizer  
 Identified Uses: Intended for agriculture. Not for human consumption.

Supplier: AGRO-K CORPORATION  
 8030 MAIN STREET NE  
 MINNEAPOLIS, MN 55432  
 Telephone: (763) 780-4116 / (800) 328-2418  
 FAX: (763) 780-4316

CHEMTREC  
 Emergency Telephone: (800) 424-9300

**II. HAZARDS IDENTIFICATION**

Classification:  
 Skin Irritant 2 H315  
 Eye Irritant 2A H319  
 Oral Irritant 4 H302  
 Aquatic Acute 3 H402



Hazard pictogram:

Signal word: Warning  
 Hazard statements: H315 – Causes skin irritation  
 H319 – Causes serious eye irritation  
 H302 – Harmful if swallowed  
 H402 – May be harmful to aquatic life  
 Precautionary statements: P264 – Wash thoroughly after handling  
 P280 – Wear eye/face protection and protective gloves  
 P270 – Do not eat, drink, or smoke when using this product.  
 P273 – Avoid release to environment.  
 P303 – Rinse mouth  
 P362 – Take off contaminated clothing and wash before reuse  
 P302+P352 – If on skin: Wash with plenty of soap and water  
 P308+P313 – If exposed or concerned: Get medical advice/attention  
 P305+P351+P338 – If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P301+312 – If swallowed, call a poison center/doctor if you feel unwell  
 P332+P313 – If skin irritation occurs: Get medical advice/attention  
 P337+P313 – If eye irritation occurs: Get medical advice/attention  
 P501 – Dispose of contents/container in accordance with local/regional/national regulations

**III. COMPOSITION/INFORMATION ON INGREDIENTS**

Blend of the following ingredients:

| Chemical Compound       | CAS Number             |
|-------------------------|------------------------|
| Mixture containing zinc | 3486-35-9<br>1314-13-2 |
| Manganese carbonate     | 598-62-9               |
| Phosphorous Acid        | 13598-36-2             |

\*Ingredients not specifically listed are non-hazardous and/or are considered to be confidential

Agro-K Corporation

Date: 5/13/2015

#### IV. FIRST AID MEASURES

|               |                                                                                                                                                                                                                                              |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If in Eyes:   | Hold eyelid open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor immediately for treatment advice. |
| If on Skin:   | Take off contaminated clothing. Rinse skin immediately with plenty of soap and water for 15-20 minutes. If irritation persists, call a poison control center or doctor immediately for treatment advice.                                     |
| If Swallowed: | Do not induce vomiting. Give large quantities of water. Do not give anything to an unconscious or convulsing person. Call a poison control center or doctor immediately for treatment advice.                                                |
| Inhalation:   | Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If irritation persists, call a poison control center or doctor immediately for treatment advice.                                 |

Hotline Number: Have the product container or label with you when calling a poison control center or doctor or going for treatment. In case of emergency, call ChemTrec at 1-800-424-9300.

#### V. FIRE FIGHTING MEASURES

|                               |                                                                                                              |
|-------------------------------|--------------------------------------------------------------------------------------------------------------|
| Firefighting notes:           | Material will not burn.                                                                                      |
| Suitable extinguishing media: | Use extinguishing media for surrounding cause of fire.                                                       |
| Special Information:          | In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. |

#### VI. ACCIDENTAL RELEASE MEASURES

|                  |                                                                                                                                                                                                            |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Spill procedure: | Ventilate area of leak or spill. Wear appropriate personal protective equipment. Capture product and reuse material if uncontaminated. If contaminated, place in a suitable container for proper disposal. |
| Clean-up         | Mop, vacuum, scoop, or sweep up material and place in container for disposal.                                                                                                                              |

#### VII. HANDLING AND STORAGE

|                                |                                                                                                                                                                                                               |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling: | Keep out of reach of children. Containers of this material may be hazardous when empty since they may contain residues; observe all warnings and precautions listed for the product.                          |
| Storage Conditions:            | Keep in closed container and properly labeled, store in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. May be corrosive to copper, brass or mild steel. |

#### VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                     |                                                                                                                                                                                                                                                                 |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skin protection:    | Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate to prevent skin contact.                                                                                                                             |
| Eye protection:     | Use chemical safety goggles and/or full face shield when splashing of solutions is possible. Maintain eye wash and quick-drench facilities in work area.                                                                                                        |
| Ventilation System: | A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into |

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal Respirators (NIOSH): | the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.<br>For conditions of use where exposure to the dust or mist is apparent, a half-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. |
| Other information:            | Do not eat, drink, or use tobacco during use. Practice good hygiene after use of this material; especially before eating, drinking, smoking, using the toilet, or applying cosmetics.                                                                                                                                                                                                                                                                                                                         |

## IX. PHYSICAL AND CHEMICAL PROPERTIES

|                            |                       |
|----------------------------|-----------------------|
| Physical description:      | Liquid                |
| Color:                     | Pinkish-brown         |
| Odor:                      | No data available     |
| Odor threshold:            | No data available     |
| Vapor density:             | No data available     |
| pH:                        | 2.0–2.5 (2% solution) |
| Relative density:          | 1.380                 |
| Melting/freezing point:    | No data available     |
| Solubility:                | Soluble in water      |
| Boiling point:             | No data available     |
| Flash point:               | No data available     |
| Flammability:              | No data available     |
| Vapor Pressure:            | No data available     |
| Partition coefficient:     | No data available     |
| Auto-ignition temperature: | No data available     |
| Viscosity:                 | No data available     |

## X. STABILITY AND REACTIVITY

|                                       |                                                                       |
|---------------------------------------|-----------------------------------------------------------------------|
| Chemical stability:                   | Stable under normal conditions of use and storage.                    |
| Incompatibility with other materials: | Strong bases, strong oxidizing agents.                                |
| Hazardous combustion:                 | Will not occur.                                                       |
| Hazardous polymerization:             | Will not occur.                                                       |
| Hazardous decomposition products:     | When heated (in a fire), may give off carbon dioxide, carbon monoxide |

## XI. TOXICOLOGY

### Potential acute toxicity:

|                   |                                          |
|-------------------|------------------------------------------|
| <b>Eyes:</b>      | May cause eye irritation.                |
| <b>Skin:</b>      | May cause skin irritation.               |
| <b>Ingestion:</b> | May cause nausea, vomiting, or diarrhea. |

| Product/ingredient name | Result    | Species | Dose       | Exposure      |
|-------------------------|-----------|---------|------------|---------------|
| Zinc                    | LD50 Oral | Rat     | 3447 mg/kg | Not Available |

### Potential chronic toxicity:

|                               |                                                   |
|-------------------------------|---------------------------------------------------|
| <b>Chronic effects:</b>       | No known significant effects or critical hazards  |
| <b>Carcinogenic effects:</b>  | No known significant effects or critical hazards. |
| <b>Mutagenic effects:</b>     | No known significant effects or critical hazards. |
| <b>Reproductive toxicity:</b> | No known significant effects or critical hazards. |

## XII. ECOLOGICAL INFORMATION

**Aquatic ecotoxicity:**

| <b>Product/ingredient name</b> | <b>Toxicity to algae</b>                                                                        |
|--------------------------------|-------------------------------------------------------------------------------------------------|
| Trade secret ingredient        | static test EC50 (calculated) - Pseudokirchneriella subcapitata (green algae) - 153 mg/l - 72 h |

|                                   |                                                  |
|-----------------------------------|--------------------------------------------------|
| <b>Biodegradability:</b>          | Not determined                                   |
| <b>Environmental Precautions:</b> | No known significant effects or critical hazards |
| <b>Mobility:</b>                  | Not available                                    |
| <b>Other Adverse Effects:</b>     | No known significant effects or critical hazards |

### XIII. DISPOSAL CONSIDERATIONS

|                               |                                                                                                                                      |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Waste Disposal Method:</b> | This material must be disposed of according to federal, state, or local procedures under the resource conservation and recovery act. |
| <b>Container Disposal:</b>    | Triple rinse and dispose of in accordance the federal, state, and local laws and regulations                                         |

### XIV. TRANSPORT INFORMATION

|                     |                      |
|---------------------|----------------------|
| Shipping Name:      | Not regulated by DOT |
| Hazard Class:       | None                 |
| Identification No.: | None                 |
| Labels Required:    | None                 |
| Placarding:         | None                 |

### XV. REGULATORY INFORMATION

|                             |             |
|-----------------------------|-------------|
| SARA Title III Information: |             |
| Section 302:                | None listed |
| Section 311/312:            | Yes         |
| Section 313:                | None listed |

CERCLA: None listed

California Proposition 65: None listed.

U.S. State Worker and Community Right-To-Know (RTK) Information:

### XVI. OTHER INFORMATION

**DISCLAIMER:** The information presented herein is based on available data from reliable sources and is correct to the best of Agro-K, Corporation knowledge. Agro-K, Corporation makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

Last Revised: March 19, 2015