

SAFETY DATA SHEET (SDS)

Agro-K Corporation

I. PRODUCT AND COMPANY IDENTIFICATION

Product Name: System-Advance
 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
Zinc Oxide	1314-13-2
Manganese Carbonate	598-62-9
Phosphorous Acid	13598-36-2
Boric Acid	10043-35-3
Ammonium Molybdate	12054-85-2

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Zinc Sulfate	7446-20-0
Urea	57-13-6

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

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 the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.
Personal Respirators (NIOSH):	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:	2.2
Relative density:	1.325
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:

Eyes:	May cause eye irritation.
Skin:	May cause skin irritation.
Ingestion:	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:

Chronic effects:	No known significant effects or critical hazards
Carcinogenic effects:	No known significant effects or critical hazards.
Mutagenic effects:	No known significant effects or critical hazards.
Reproductive toxicity:	No known significant effects or critical hazards.

XII. ECOLOGICAL INFORMATION

Aquatic ecotoxicity:

Product/ingredient name	Toxicity to algae
Manganese	static test EC50 (calculated) - Pseudokirchneriella subcapitata (green algae) - 153 mg/l - 72 h

Biodegradability:	Not determined
Environmental Precautions:	No known significant effects or critical hazards
Mobility:	Not available
Other Adverse Effects:	No known significant effects or critical hazards

XIII. DISPOSAL CONSIDERATIONS

Waste Disposal Method:	This material must be disposed of according to federal, state, or local procedures under the resource conservation and recovery act.
Container Disposal:	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.

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