




Safety Data Sheet

NFPA HAZARD RATING				U.S. TRANSPORT SUMMARY	
0	Least				See Section 14 for full information.
1	Slight	2	Health		
2	Moderate	0	Flammability		
3	High	0	Reactivity		
4	Severe	OX	Oxidizer		

SECTION 1: IDENTIFICATION	
Product Name: Gainer® High K 12-8-30 EPA Registration #: Exempt Common Name: Soluble fertilizer mixture Chemical Description: Macro and micro nutrient soluble fertilizer Recommended Uses: Fertilizer product – See product label for full directions for use. Restrictions for Use: See product label for any potential restrictions on use.	
Manufactured For: WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589	MEDICAL EMERGENCY TELEPHONE NUMBER: 1-877-424-7452 (24hrs) Non-Emergency Business Inquiries: 1-855-494-6343 Mon – Fri 8am – 5pm (Central Standard Time)
FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL: CHEMTREC 1-800-424-9300 (24 hours)	

SECTION 2: HAZARDS IDENTIFICATION	
EMERGENCY OVERVIEW: Dark blue granules with fertilizer like odor. Causes eye irritation. Oxidizer. Contact with combustible material will not cause spontaneous ignition. However, substance will enhance an existing fire.	
POTENTIAL HEALTH EFFECTS: Eyes: Causes moderate but reversible eye irritation. Skin: May cause mild skin irritation. Inhalation: May be harmful if inhaled. Ingestion: May cause gastric discomfort. Preexisting Conditions: Preexisting respiratory conditions may be aggravated by exposure to dust. Chronic Health Effects: Repeated or prolonged inhalation or ingestion of dust may affect the blood, respiration and kidneys.	
Carcinogenicity	NTP: Not listed IARC: Not listed OSHA: Not listed
OSHA HCS 2012 CLASSIFICATION: Eye Irritation Category 2A; Oxidizer Category 2	
SIGNAL WORD: DANGER	
HAZARD STATEMENTS: Causes serious eye irritation. May intensify fire; oxidizer	
 	
Percent of product with unknown toxicity: 0.05%	
PRECAUTIONARY STATEMENTS: Prevention: Wash hands thoroughly after handling. Wear protective gloves, eye protection and face protection (See Section 8). Keep away from heat. Keep/Store away from clothing and other combustible materials. Take any precaution to avoid mixing with combustible materials.	

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Response: If in eyes: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. In case of fire: Use chemical type foam, carbon dioxide, dry chemical, water fog or spray to extinguish.

Storage: See Section 7 for storage information.

Disposal: Dispose of contents/container in accordance with Federal, state and local regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	% (wt)	CAS Reg. #
Potassium nitrate	54.0 – 57.0%	7757-79-1
Monoammonium phosphate	11.0 – 15.0%	7722-76-1
Urea	5.0 – 7.0%	57-13-6
Citric acid	3.5 – 5.5%	77-92-9
Zinc sulfate	2.9%	7446-19-7
Copper sulfate	1.02%	7758-99-8
Manganese sulfate	<0.5%	10034-96-5
*Ingredients not specifically listed are non-hazardous and are considered to be confidential business information under 29 CFR 1910.1200(i).		
See Section 8 for exposure limits.		

SECTION 4: FIRST AID MEASURES

Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.

Ingestion: Seek medical attention or call a poison control center for treatment advice. Do not induce vomiting unless instructed to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eyes: Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention if irritation persists.

Skin: Remove contaminated clothing and wash before re-using. Flush skin with water and then wash with soap and water. Seek medical attention if irritation persists.

SECTION 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Chemical type foam, Carbon dioxide, Dry chemical, Water fog or spray

Unsuitable Extinguishing Media: Water jet

Special Fire Fighting Procedures: Wear NIOSH/MSHA approved self-contained breathing apparatus and full bunker gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Avoid breathing vapors; keep upwind.

Hazardous Combustion Products: Carbon oxides, Sulfur oxides, some metallic oxides, Ammonia

Unusual Fire and Explosion Hazards: This is an oxidizer when combined with a fuel and ignition source it has the potential to release a large amount of oxygen accelerating the flame to the point of explosion, Smothering the fire with steam or material is ineffective as oxygen is produced by the decomposition. During a fire, irritating/toxic gases may be generated.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

Environmental Precautions: Keep spilled product and any rinse water from entering sewers or waterways.

Methods for Containment: Contain spilled product by sweeping up if a small spill or by diking area with sand or earth if a large spill.

Methods for Clean-up: Avoid dust formation. Scoop or sweep up material and place in a container for disposal. If product is uncontaminated, spilled material may be applied at the rate recommended on the label. Never return spills to original containers for re-use. After removal of spilled product, flush contaminated area thoroughly with water. Remove sources of heat and ignition. Restrict access to spill site. Any spillage should be contained and recovered. Do not allow to mix with sawdust and other combustible organic substances.

Other Information: Spills of this product may require reporting under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as the product contains copper sulfate with a reportable quantity (RQ) of 10 lbs. See Section 15 for additional information.

SECTION 7: HANDLING AND STORAGE

Handling: Avoid excessive generation of dust. Avoid contamination by combustible (e.g., diesel oil, grease, etc.) and incompatible materials, which may cause fires. Avoid unnecessary exposure to the atmosphere to prevent moisture pick up, which makes the material difficult to handle. Do not mix with mineral acids, chlorine, oxidizing agents, alkalis, diesel, oils and greases. Avoid breathing dust. Use only outdoors or in a well-ventilated area. Immediately clean up spills that occur during handling. Keep containers closed when not in use. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Storage: Store in a cool, dry area away from children, feed and food products. Store away from flammable and incompatible materials. Protect packaging from physical damage. Protect from exposure to fire conditions.

Minimum Storage Temperature: Not applicable

Other Precautions: Consult Federal, state and local laws and regulations pertaining to storage.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component:	OSHA PEL	ACGIH TLV	NIOSH REL
Copper compounds	1 mg/m ³ TWA	1 mg/m ³ TWA	1 mg/m ³ TWA
Manganese inorganic compounds	5 mg/m ³ CEIL	0.2 mg/m ³ TWA	1 mg/m ³ TWA 3 mg/m ³ ST
Particulates not otherwise classified	15 mg/m ³ (total dust) 5 mg/m ³ (respirable)		

Respiratory Protection: If dust concentration exceeds permissible levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for general particulates.

Engineering Controls: **Local Exhaust:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.

Protective Gloves: Wear chemically protective gloves to prevent exposure to skin.

Eye Protection: Wear chemical goggles or safety glasses and full face shield. Contact lenses are not eye protective devices. An emergency eyewash or water supply should be readily available to the work area.

Other Protective Clothing or Equipment: Wear long-sleeve shirt, long pants and shoes plus socks to prevent skin contact.

Work/Hygienic Practices: Never eat, drink, nor use tobacco in work areas. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid	Specific Gravity (H₂O=1):	<1.0
Vapor Pressure (mm Hg):	Not applicable	Density (lbs/gallon):	Not applicable
Vapor Density (Air=1):	Not applicable	Melting Point/Freezing Point:	Not determined
Solubility in Water (wt %):	100%	Boiling Point/Range:	Not determined
Viscosity:	Not applicable	pH (1% solution):	Not determined
Appearance and odor:	Dark blue granules with fertilizer like odor.	Flash Point:	Not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Product is an oxidizer.

Chemical Stability: Product is stable at ambient temperature and pressure, under normal storage and handling conditions.

Possibility of Hazardous Reactions: Will not occur

Conditions to Avoid: Excessive heat, dust generation and damp areas

Incompatible Materials: Strong acids and bases.

Hazardous Decomposition Products: When exposed to excessive heat, Carbon oxides, Sulfur oxides, some metallic oxides, and ammonia may be formed.

SECTION 11: TOXICOLOGICAL INFORMATION**ACUTE TOXICITY**

Eye Effects: Exposure to dust is expected to cause moderate but reversible eye irritation.

Skin Effects: Mild skin irritation is possible. Estimated LD50 > 5,000 mg/kg.

Acute Inhalation Effects: Estimated LC50 = 5.0 mg/L

Acute Oral Effects: Estimated LD50 = 2,273 mg/kg

Specific Target Organ Toxicity: None known

Toxicity:

CHRONIC TOXICITY

Chronic Effects: Repeated or prolonged inhalation or ingestion of dust may affect the blood, respiration and kidneys.

Carcinogenicity: No component is anticipated to have carcinogenic effects.

Mutagenicity: No component is anticipated to have mutagenic effects.

Teratogenicity: No component is anticipated to have teratogenic effects.

Reproductive Toxicity: No component is anticipated to have effects on the reproductive system.

POTENTIAL HEALTH EFFECTS:

Eyes: Causes moderate but reversible eye irritation.

Skin: May cause mild skin irritation.

Inhalation: May be harmful if inhaled.

Ingestion: May cause gastric discomfort.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: This product is anticipated to be acutely toxic to aquatic organisms.

ECOTOXICITY DATA:

Fish Acute and Prolonged Toxicity: Not determined

Aquatic Invertebrate Acute Toxicity: Estimated 48 hr EC50 for *Daphnia magna* = 1 mg/L (Based upon data from 66% of the formulation)

Aquatic Plant Toxicity: Not determined

Bird Acute and Prolonged Toxicity: Not determined

Honeybee Toxicity: Not determined

ENVIRONMENTAL EFFECTS:

Soil Absorption/Mobility: Not determined

Persistence and degradability: Not determined

Bioaccumulative Potential: Not determined

Other adverse effects: Not determined

SECTION 13: DISPOSAL CONSIDERATIONS

Waste: Dispose of in accordance with applicable Federal, state and local laws and regulations.
Container: Ensure all product has been emptied from the sack/bag. Dispose of emptied container in accordance with applicable Federal, state and local laws and regulations.
RCRA Characteristics: It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

SECTION 14: TRANSPORT INFORMATION

DOT: This product is regulated by the U.S. Department of Transportation as a hazardous material for ground shipment.
(Ground) UN1486, Potassium nitrate mixture, 5.1, PG III
IMDG: Not determined
(Sea)
IATA: Not determined
(Air)
TDG: Not determined
(Canada)

SECTION 15: REGULATORY INFORMATION

TSCA Inventory: All components are listed or exempt from listing on the TSCA inventory.
SARA Title III Information:
Section 302 - Extremely hazardous substances: None listed
Section 311/312 – Hazard Categories: Immediate (Acute), Delayed (Chronic)
Section 313 – The following chemicals are subject to the reporting requirements of Section 313 of Title III, Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372:
Potassium nitrate (54.0 – 57.0%); Copper sulfate (1.02%); Manganese compounds (<0.5%); Zinc sulfate (2.9%)
CERCLA - This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
Copper sulfate has an RQ of 10 lbs (reached with 980 lbs of product); Manganese compounds are considered to be CERCLA hazardous substances though no RQ is established; Zinc sulfate has an RQ of 1,000 lbs (not reached with any practical quantity of product)
California Proposition 65: This product does not contain chemicals known to the state of California to cause cancer and/or reproductive harm.
U.S. State Worker and Community Right-To-Know (RTK) Information (CT, IL, MA, MN, NH, NJ, PA, RI):

Chemical Name	CAS #	State(s)
Potassium nitrate	7757-79-1	CT, MA, PA, RI
Urea	57-13-6	MN
Copper sulfate	7758-99-8	NJ, PA
Manganese sulfate	10034-96-5	MN, NJ, RI
Zinc sulfate	7446-19-7	MA, NJ, PA

Canadian Domestic Substances List: Not determined
WHMIS Classification: This product is not registered for use in Canada. WHMIS classification is not determined.

SECTION 16: OTHER

Disclaimer: The information presented herein is based on available data from reliable sources and is correct to the best of WinField Solutions' knowledge. WinField Solutions, LLC makes no warranty, express nor 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. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.
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