



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

Product Name: KQ Emerald FE 5% Iron with Lignin
Synonyms: KQ Emerald FE Iron 5% Chelated Iron with Lignin
Product CAS Codes: 7720-78-7
Chemical Name: Ferrous Sulfate Formulated Mixture
Chemical Family: Fertilizer
Chemical Formula: Proprietary information
Product Use: Plant Nutrients
Prepared By: Kugler Company

SUPPLIER IDENTIFICATION

Kugler Company
209 W. 3rd, PO Box 1748, McCook, NE 69001
(308) 345-2280 phone / (308) 345-7756 fax
Emergency Contact No.: (800) 424-9300 CHEMTREC
www.KuglerCompany.com

SECTION 2: HAZARDS IDENTIFICATION

Signal Word: Warning
Emergency Overview:
Routes of Entry: Inhalation, ingestion, injection and absorption

Potential Health Effects

Eyes: May cause irritation
Skin: May cause irritation
Ingestion: May cause irritation
Inhalation: May cause irritation. Large dose ingestion can cause heart and kidney problems

Acute Health Hazards:

NA

Chronic Health Hazards:

Chronic ingestion may cause damage to heart, liver and blood-forming tissues. Ingestion of large quantities may cause headache, mental impairment, dizziness and may be fatal.

Medical Conditions Generally Aggravated by Exposure:

Existing skin and lung disorders may be aggravated

Carcinogenicity

OSHA: NA **ACGIH:** NA **NTP:** NA **IARC:** NA **OTHER:** NA

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	% VOL	CAS No.	SARA 313 Reportable
Ferrous Sulfate	17	7720-78-7	
Lignin	20		
Water	63		

SECTION 4: FIRST-AID MEASURES

Inhalation: Move injured person into fresh air and keep person calm under observation. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Get medical attention immediately.
Skin Contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If frostbite occurs, immerse affected area in warm water (not exceeding 105°F/41°C). Keep immersed for 20 to 40 minutes. Get medical attention immediately. Chemical burns must be treated by a physician.
Eye Contact: Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes. If frostbite occurs, immerse affected area in warm water (not exceeding 105°F/41°C) for at least 15 minutes. If easy to do, remove contact lenses.
Ingestion: Call a physician or poison control center immediately. DO NOT induce vomiting. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than the hips to help prevent aspiration. This material is a gas under normal atmospheric conditions and ingestion is unlikely.
Chemical Burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Seek medical attention immediately.

SECTION 5: FIRE-FIGHTING MEASURES

Flammable Limits in Air, Upper: NA
(% by volume) Lower: NA

Flash Point: NA

Method Used: NA

Autoignition Temperature: NA

NFPA Hazard Classification

Health: 1 Flammability: 0 Reactivity: 0 Other: None



Warning

HAZARD STATEMENT
Harmful if swallowed

HMIS Hazard Classification

Health: 1 Flammability: 0 Reactivity: 0 Other: None

Extinguishing Media: Use extinguishing media appropriate for surrounding materials.**Special Fire Fighting Procedures:** Because fire may produce hazardous decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure demand or positive pressure mode.**Unusual Fire and Explosion Hazards:** NA**Hazardous Decomposition Products:** Can release ammonia, nitrous oxide fumes, cyanides, oxides of carbon and phosphorous oxide fumes.**SECTION 6: ACCIDENTAL RELEASE MEASURES****Small Spills:** Absorb with sand or other inert material and dispose of in accordance with applicable regulations.**Large Spills:****Containment:** For large spills, dike far ahead of liquid spill for later disposal, Do not release into sewers or waterways.**Cleanup:** Contained materials may be salvaged for use.**Regulatory Requirements:** Follow applicable 051-IA regulations for cleanup personnel and EPA requirements for disposal.**Disposal:** Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, State, and local regulations if material is not salvageable for use.**Disposal Regulatory Requirements:** Follow applicable Federal, state, and local regulations.**Container Cleaning and Disposal:** Triple rinse and use rinsewater in product tank. Dispose of container per applicable regulations.**SECTION 7: HANDLING STORAGE****Precautions for Safe Handling:** Avoid inhalation and contact with skin and eyes. Do not get in eyes, on skin, on clothing. Do not breathe gas. Use only with adequate ventilation. Open valve slowly. Ensure that cylinders are not exposed to heat. When using, do not eat, drink or smoke. Do not pressurize, cut weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death. Observe good industrial hygiene practices.**Conditions for Safe Storage, Including any Incompatibilities:** Compressed gas storage. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122°F. Store in a cool and well-ventilated place. Secure cylinders in an upright position at all times, close all valves when not in use. Secure cylinders from falling or being knocked over.**SECTION 8: EXPOSURE/CONTROLS/PERSONAL PROTECTION****ENGINEERING CONTROLS:****Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs.**ADMINISTRATIVE CONTROLS:****Respiratory Protection:** Respiratory protection may be needed if airborne mists are created. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.**Protective Clothing Equipment:** Wear chemically protective gloves to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133).**Safety Stations:** Make emergency eyewash stations, emergency showers, and washing facilities available in work area.**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your personal protective equipment.**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Physical State:	Liquid
Appearance and Odor:	Dark Brown Solution, Metallic Odor
Vapor Pressure:	NA
Vapor Density (Air=1):	NA
Specific Gravity (H2O=1):	1.20
Water Solubility:	Freely Soluble
Boiling Point:	212 F
Freezing Point:	25-30 F
% Volatile:	NA

SECTION 10: STABILITY AND REACTIVITY

Stability:	Stable under normal storage and handling conditions
Conditions to Avoid (Stability):	Avoid excessive heat
Incompatibility (material to avoid):	Oxidizers, hypochlorites, strong bases and strong acids
Hazardous Decomposition or By-Products:	Ammonia
Hazardous Polymerization:	NA
Conditions to Avoid (Polymerization):	NA

SECTION 11: TOXICOLOGICAL INFORMATION

NA

SECTION 12: ECOLOGICAL INFORMATION

NA

SECTION 13: DISPOSAL CONSIDERATIONS**Waste Disposal Method:** Disposal of N-P-K fertilizer may be subject to federal, state and local regulations. Users of this product should review their operations in terms of applicable federal, state and local laws and regulations, then consult with appropriate regulatory agent before

RCRA Hazard Class: discharging or disposing.
NA

SECTION 14: TRANSPORT INFORMATION

US Department of Transportation

Proper Shipping Name: KQ EMERALD FE
Hazard Class: NA
ID Number: NA
Packing Group: NA
Label Statement:

Health: 1 Flammability: 0 Reactivity: 0 Specific: 0

Water Transportation

Proper Shipping Name: KQ EMERALD FE
Hazard Class: NA
ID Number: NA
Packing Group: NA
Label Statement:

Health: 1 Flammability: 0 Reactivity: 0 Specific: 0

Air Transportation

Proper Shipping Name: KQ EMERALD FE
Hazard Class: NA
ID Number: NA
Packing Group: NA
Label Statement:

Health: 1 Flammability: 0 Reactivity: 0 Specific: 0

SECTION 15: REGULATORY INFORMATION

NA

SECTION 16: OTHER INFORMATION INCLUDING DATE OF PREPARATION AND/OR LAST REVISION

Handling Precautions: Use in accordance with labeling instructions. Keep away from children, pets, domestic animals, and wildlife.

Storage Requirements: Store in properly labeled containers. Keep from freezing.

Labeling (Precautionary Statements): Warning! Eye and Skin Irritant

This product is not regulated by DOT or falls under the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and CFR part 372.

Disclaimer:

The data in this Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control, it should not be taken as warranty or representation for which KUGLER OIL COMPANY assumes legal responsibility. This information is provided solely for your consideration, investigation and verification.