



**SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION**

**1.1 Product identifier**

Product name **MICROKEL 13% FE PREMIUM**

**1.2 Relevant and discouraged uses**

Recommended use: Fertilizer Chelated Iron

**1.3 Safety data sheet supplier information**

Campofert USA LLC 333 SE 2nd Av, Suite 2065 Miami, FL 33131

**1.4 Emergency telephone number**

USA 786 570 8963 (Monday to Friday from 7:30 a.m. to 5:30 p.m.)

**SECTION 2 : IDENTIFICATION OF HAZARDS**

**2.1 Classification of the substance or mixture**

**Classification under the Globally Harmonized System**

Acute Toxicity, Oral (Category 4), H302  
 Eye irritation (Category 2), H319  
 Skin irritation (Category 2), H315

**2.2 Label elements**

Pictogram:



Word of warning:

**BEWARE**

Hazard statements:

**H302** Harmful if swallowed  
**H319** Causes acute eye irritation  
**H315** Causes skin irritation

Prudence advise:

**P102** Keep out of reach of children  
**P264** Wash hands thoroughly after handling  
**P280** Wear protective gloves, protective clothing and eye protection equipment  
**P305 + P351 + P338** In case of contact with eyes: rinse thoroughly with water for several minutes. Remove contact lenses if can be easily done. Proceed to wash. If eye irritation persists, see a doctor.  
**P337 + P313** Dispose of packaging in accordance with national environmental legislation.  
**P501**

**SECTION 3: COMPOSITION/INFORMATION ON COMPONENTS**

**2.3 Other hazards**

None known.

### SECTION 3 : COMPOSITION/INFORMATION ON COMPONENTS

#### 3.1 Substance

Not applicable.

#### 3.2 Mixture

Iron (Fe)	13 %	Derived from EDTA Iron
13.0 % Chelated Iron		

### SECTION 4 : FIRST AID

#### 4.1 Description of first aid

General measures:	Avoid exposure to the product by taking adequate protection measures. See a doctor, bring safety data sheet.
Inhalation	Seek fresh air. If the person is not breathing, give artificial respiration. If difficulty breathing, supply oxygen. Get medical help.
Skin contact:	Clean all excess material off the skin and then wash skin with plenty of water. Remove contaminated clothing and shoes. Wash clothes before wearing again. Clean shoes thoroughly before wearing them again.
Contact with eyes:	Rinse immediately with plenty of water for a few minutes. Seek medical help if symptoms appear.
Ingestion	Drink several glasses of water to dilute. Vomiting may occur spontaneously, but should not be induced. If it happens, sit leaning forward to prevent bronchial aspiration. Never give an unconscious person anything for ingesting. Get immediate medical help

#### 4.2 Main symptoms and effects, both acute and delayed.

Inhalation: Inhalation of product vapors may cause respiratory tract irritation.  
Contact with Skin: Skin irritation in case of prolonged contact with the product.  
Contact with eyes: Irritation of conjunctival membrane in case of contact with eyes. Ingestion: Abdominal pain, diarrhea and vomiting in case of ingestion.

#### 4.3 Indications for any medical help and special treatments that should be given immediately.

Symptomatic treatment. Ensure that medical personnel are knowledgeable about the substances involved.

### SECTION 5 : FIRE FIGHTING MEASURES

#### 5.1 Means for extinguishing

Dry chemical powder, Carbon Dioxide (CO<sub>2</sub>), foam and water spray.

#### 5.2 Specific hazards arising from the substance or mixture

Irritating and probably toxic gases may be produced during a fire due to thermal decomposition or combustion (Oxides of Carbon and Nitrogen).

## SECTION 5 : FIRE FIGHTING MEASURES

### 5.3 Recommendations for firefighters

5.3.1 Fire extinguishing instructions:	Spray packaging with water to prevent ignition if exposed to excessive heat or fire. Wet packaging if not yet reached by the flames in order to contain the fire by taking advantage of the non-combustible properties of the product.
5.3.2 Protection during firefighting:	Use self-contained breathing apparatus. Structural firefighter protective clothing provides limited protection during fires ONLY, and may not be effective in spill situations.
5.3.3 Hazardous decomposition products in case of fire:	It may release irritating and/or toxic fumes and gases during a fire, such as carbon monoxide, phosphorus oxides, phosphine, and other substances derived from incomplete combustion.

## SECTION 6 : MEASURES IN CASE OF ACCIDENTAL SPILLAGE

### 6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For personnel who are not part of emergency services	Use appropriate protective equipment to prevent emergency services any contamination of skin, eyes and clothing. Use of the spill containment kit, prevent the product from spreading over a larger area and collect the material in buckets to collect the product.
6.1.2 For emergency personnel	Use appropriate protective equipment to prevent any contamination of skin, eyes and clothing. Use of the spill containment kit, prevent the product from spreading over a larger area and collect the material in buckets to collect the product.

### 6.2 Environmental precautions

Keep away from drains and surface water.

### 6.3 Methods and material for containment and cleaning up

In case of accidental spillage, the product should be collected in clean plastic containers with lids. At least one spill containment kit must be used, and the person performing the work must wear the appropriate personal protection equipment.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Always wear the appropriate personal protective equipment for handling the product: goggles, gloves and mask with air filters. Avoid contact, especially if skin wounds or abrasions. Wash hands after using product. Change product-contaminated clothes, and wash them separately so as not to contaminate other clothes.

### 7.2 Conditions for safe storage, including possible incompatibilities

Storage conditions:	Keep the product in its original packaging. Store in a tightly closed container once it's been opened Store in a cool, dry place, protected from rain and sun. Protect from physical damage. Employ good housekeeping practices to avoid dust accumulation. Keep out of the reach of children and inexperienced people. Do not store together with food and fodder.
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**SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Packaging materials: The one supplied by the manufacturer.

Incompatible products: None known.

**SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**8.1 Control parameters**

CMP (Res. MTESS 295/03):	N/D
CMP-CPT (Res. MTESS 295/03):	N/D
CMP-C (Res. MTESS 295/03):	N/D
TLV-TWA (ACGIH):	N/D
TLV-STEL (ACGIH):	N/D
PEL (OSHA 29 CFR 1910.1000):	N/D
IDLH (NIOSH):	N/D
PNEC (water):	0,05 mg/L
PNEC (sea):	0,005 mg/L
PNEC-STP:	50 mg/L

**8.2 Exposure controls**

8.2.1 Appropriate technical controls  
 Keep employee exposures below occupational exposure standards, using, where necessary, engineering controls such as exhaust fans or pollution control systems.

8.2.2 Personal protection equipment

Eye and face protection: Wear chemical protection goggles. Commission a facility in the work area for quick eye flushing and rinsing.

Skin protection: Wear protective clothing, including nitrile gloves, boots and overalls or pants, and a long sleeve shirt to avoid skin contact.

Respiratory protection: Personal Respirators (NIOSH-Approved). A respirator with filters for organic vapors may be used if product is to be used under conditions where exposure to vapors is imminent and Engineering controls are not feasible.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

Physical form:	Soluble Powder
Color:	Brown
Odor:	The typical
Olfactory threshold:	N/D
pH:	4,73
Melting/freezing point:	N/D
Boiling point/boiling range:	N/D
Evaporation rate:	N/D

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Flammability:	The product is non-flammable and non-combustible.
Flash point:	
Flammability limits:	N/D
Vapor pressure (20 °C):	N/D
Vapor density (air=1):	N/D
Density (20 °C):	N/D
Solubility (25 °C)	9,0 g/100 mL
Electrical conductivity (mS/cm <sup>2</sup> at 25°C):	1,09 (1:100 sol.)
Distribution Coef. (logKo/w):	N/D
Auto-ignition temperature:	N/D
Decomposition temperature:	N/D
Kinematic viscosity (cSt at 20°C):	N/D
Henry's constant (20°C):	N/D
Log Koc:	N/D
Explosive properties:	N/D

Non-explosive. According to column 2 of REACH'S Annex VII, this study is not necessary because there are no chemical groups with explosive properties in the molecule.

According to column 2 of REACH'S Annex VII, this study is not necessary because the substance, due to its chemical structure, cannot react exothermically with combustible materials.

### 9.2 Additional information

Other properties: None known

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

No product reactions or decomposition are expected to occur under normal storage conditions. Does not contain organic peroxides. Not corrosive to metals. Does not react with water.

### 10.2 Chemical stability

Chemically stable.

### 10.3 Possibility of dangerous reactions

None known.

### 10.4 Conditions to be avoided

None known.

### 10.5 Incompatible materials

None known.

### 10.6 Hazardous decomposition products

None known.

## SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity: No data available

Skin irritation or corrosion: No data available

Serious eye injury or irritation: No data available

Respiratory or skin sensitization: No data available

### **Mutagenicity, carcinogenicity and reproductive toxicity:**

No information is available on any product component being a probable, possible, or IARC-confirmed (International Agency for Research on Carcinogens) human carcinogen at levels above or equal to 0.1%.

### **Acute and delayed effects:**

Routes of exposure: Inhalation, dermal and ocular contact.

Inhalation: May cause respiratory tract irritation.

Skin contact: May cause dryness in the affected area.

Contact with Eyes: May cause conjunctivitis and burning sensation.

Ingestion: May cause stomachache, vomiting, diarrhea.

## SECTION 12: ECOLOGICAL INFORMATION

### **12.1 Toxicity**

No information available

### **12.2 Persistence and degradability**

Expected to be degradable due to its components

### **12.3 Bioaccumulation potential**

No information available

### **12.4 Mobility on the ground**

No information available

### **12.5 PBT and vPvBm assessment results**

No information available

### **12.6 Other adverse effects**

No information available

### SECTION 13: CONSIDERATIONS FOR DISPOSAL

Both leftover product and empty containers should be disposed of in accordance with current legislation on Environmental Protection, particularly on Hazardous Waste (National Law No. 24.051 and its attendant regulations). Waste must be sorted and disposed of by an authorized company. Disposal procedure: wastewater treatment or landfill disposal.

### SECTION 14: TRANSPORT INFORMATION

#### 14.1 Ground transportation

Proper Shipping Name:	GOODS NOT DANGEROUS FOR TRANSPORT
No. UN/ID:	GOODS NOT DANGEROUS FOR TRANSPORT
Hazard Class:	GOODS NOT DANGEROUS FOR TRANSPORT
Packaging Group:	GOODS NOT DANGEROUS FOR TRANSPORT
Risk Code:	GOODS NOT DANGEROUS FOR TRANSPORT

#### 14.2 Air transport (ICAO/IATA)

Proper Shipping Name:	GOODS NOT DANGEROUS FOR TRANSPORT
N° UN/ID:	GOODS NOT DANGEROUS FOR TRANSPORT
Hazard Class:	GOODS NOT DANGEROUS FOR TRANSPORT
Packaging Group:	GOODS NOT DANGEROUS FOR TRANSPORT
Instructions for passenger and cargo aircraft:	GOODS NOT DANGEROUS FOR TRANSPORT
Instructions for cargo aircraft:	GOODS NOT DANGEROUS FOR TRANSPORT
CRE:	GOODS NOT DANGEROUS FOR TRANSPORT

#### 14.3 Maritime transport (IMO)

Proper Shipping Name:	GOODS NOT DANGEROUS FOR TRANSPORT
No. UN/ID:	GOODS NOT DANGEROUS FOR TRANSPORT
Hazard Class:	GOODS NOT DANGEROUS FOR TRANSPORT
Packaging Group:	GOODS NOT DANGEROUS FOR TRANSPORT
EMS:	GOODS NOT DANGEROUS FOR TRANSPORT
Stowage and Segregation:	GOODS NOT DANGEROUS FOR TRANSPORT
Marine Pollutant:	NO
Name for transport documentation:	NOT CLASSIFIED AS A DANGEROUS GOODS

### SECTION 15: REGULATORY INFORMATION

Substance not hazardous to the ozone layer (1005/2009/EC).  
 Volatile organic compound (VOC) content (2004/42/EC): N/D

### SECTION 16: OTHER INFORMATION

#### 16.1 Abbreviations and acronyms

N/A: not applicable.	ACGIH: American Conference of Governmental Industrial Hygienists.
N/D: no information available.	TLV: Threshold Limit Value
CAS: Chemical Abstracts Service	TWA: Time Weighted Average
IARC: International Agency for Research on Cancer	STEL: Short-Term Exposure Limit
PEL: Permissible Exposure Limit.	REL: Recommended Exposure Limit
INSHT: National Institute of Occupational Safety and Hygiene.	LC50: Lethal Mean Concentration.
ETA: estimation of acute toxicity.	EC50: Average Effective Concentration
LD50: Mean Lethal Dose.	CI50: Mean Inhibitory Concentration.
	Changes with respect to the previous revision.

## SECTION 16: OTHER INFORMATION

### 16.2 Main bibliographic references and data sources

This safety data sheet complies with these national regulations:

Colombia: NTC 445, July 22, 1998.

Mexico: NOM-018-STPS-2000.

Guatemala: Labor Code, Decree No. 1441 Honduras: Executive Agreement No. STSS-053-04 Costa Rica: Decree No. 28113-S

Panama: Resolution #124, March 20, 2001 Ecuador: NTE INEN 2 266:200

Regulation (EC) 1272/2008 on Classification, Labeling and Packaging of Chemical Substances and their Mixtures, as amended.

Regulation (EC) 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), as amended.

Dir. 91/689/EEC on hazardous waste and Dir. 91/156/EEC on waste management.

European Agreement concerning International Carriage of Dangerous Goods by Road (ADR 2015). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID 2015). International Maritime Dangerous Goods Code (IMDG 34 ed.), IMO, Resolution MSC 90/28/Add.2. IBC/MARPOL Code, IMO, Resolution MEPC 64/23/Add.1.

International Air Transport Association Regulations (IATA 56 ed., 2015) relating to air transport of dangerous goods.

Globally Harmonized System of Classification and Labeling of Chemicals, sixth revised edition, 2015 (GHS 2015).

International Agency for Research on Cancer (IARC), classification of carcinogens. Revision: 23/03/2015.

### 16.3 Classification and procedure used to determine mixture classification

Procedures according to GHS/GHS Rev. 5.

Classification performed on the basis of chemical analogues and product information.

SECTION 2: classification by analogy with other products and based on product data.

SECTION 9: Product data.

Flammability: according to test data.

SECTION 11 and 12: analogy with other products.

#### NFPA 704 Classification



#### HMIS® classification

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARDS	0
PERSONAL PROTECTION	E

PERSONAL PROTECTION INDEX	
A	G
B	H
C	I
D	J
E	K
F	X
Consult your supervisor or Safety Department	
L	Q
M	R
N	S
O	T
P	U
V	W
Y	X
Z	

### 16.4 Exemption from liability

The information indicated in this MSDS was compiled and integrated with the information provided in the MSDSs of the raw material suppliers. The information on this product may vary if combined with other materials or used in other processes. The user is responsible for interpreting and applying this information for particular uses in specific processes. The information contained herein is supplied only as a guideline for handling this specific product and has been prepared in good faith by trained technical personnel. This safety data sheet does not claim to be complete or exhaustive, use and handling manner and conditions may involve additional considerations not covered in this document.

### 16.5 Change control

May 2020

SDS created under the Globally Harmonized System.