Safety Data Sheet
0-0-45 Micro PCSOP

SECTION 1: Identification

1.1 Product identifier

Product name	0-0-45 Micro PCSOP
Brand	Nutrite

1.2 Other means of identification
Granular fertilizer

1.3 Recommended use of the chemical and restrictions on use
For turf/ornamental fertilizer applications. See product label for application instructions.

1.4 Supplier's details

Name	Ferti Technologies
Address	155 East Street Wallingford, CT 06492 USA
Telephone	203-265-0500

1.5 Emergency phone number(s)

USA National Capital Poison Center: 1 800 222 1222

SECTION 2: Hazard identification

General hazard statement
Avoid creating dust when handling, using or storing. Use outdoors or in well ventilated area to avoid exposure to dust.

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

Skin Irritation — Category 2
Eye Irritation — Category 2A
Specific Target Organ Toxicity (Single Exposure – Respiratory Irritation) — Category

2.2 GHS label elements, including precautionary statements

Pictogram

Signal word **Warning**

Hazard statement(s)
H315 – Causes skin irritation.
H319 – Causes serious eye irritation.
H335 – May cause respiratory irritation.

Precautionary Statements
Prevention
P261 – Avoid breathing dust.
P264 – Wash hands thoroughly after handling.
P271 – Use only outdoors or in a well-ventilated area.
P280 – Wear eye protection/face protection.

Response
P302 + P352 – IF ON SKIN: Wash with plenty of water.
P332 + P313 – If skin irritation occurs: Get medical advice/attention.
P362 + P364 – Take off contaminated clothing and wash before reuse.
P304 + P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 – Call a POISON CENTER or physician if you feel unwell.
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337 + P313 – If eye irritation persists: Get medical advice/attention.

Storage
P403 + P233 – Store in a well-ventilated place. Keep container tightly closed.

Disposal
P501 – Dispose of contents/container in accordance with local, state, and federal regulations.

2.3 Other hazards which do not result in classification

Dust may form combustible dust-air mixtures at high concentrations.
Decomposition may release ammonia, nitrogen oxides, sulfur oxides.
Spills may create slip hazards and contribute to nutrient loading in waterways.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

This Safety Data Sheet is not a guarantee of product specification or NPK value(s).

Hazardous components

Chemical Name	CAS Number	Concentration%
Potassium Sulfate (K_2SO_4)	7778-80-5	85–95%
Polymer Coating	Proprietary	2–8%
Micronutrient Additive (“Micro”)	Proprietary	<2%
Inert Ingredients / Impurities	Proprietary	
Balance *Exact percentages withheld as trade secret where applicable		

Trade secret statement (OSHA 1910.1200(i))

*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).
Note: The balance of the ingredients are not classified as hazardous or are below the concentration limit to be classified as hazardous, under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided by a qualified operator. Get medical attention if irritation develops and persists
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Get medical attention if irritation develops and persists.
In case of eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation develops and persists.
If swallowed	Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms/effects, acute and delayed

INHALATION: May cause respiratory irritation.
SKIN: Skin irritation
EYES: Dust particles may cause serious eye irritation.
Symptoms may include stinging, tearing, redness, swelling, and blurred vision Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
INGESTION: May cause discomfort if swallowed. May be harmful if swallowed in large quantities.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use extinguishing agent suitable for type of surrounding fire. Avoid excessive water to minimize runoff. Prevent firefighter water from entering the environment.
Small fires: Water spray, foam, dry chemical or CO2
Large fires: Water spray, fog or foam.

5.2 Specific hazards arising from the chemical

Container may rupture on heating. Cool closed containers exposed to fire with water spray. Do not allow run-off from firefighting to enter drains or water courses. Explosive reactions with oxidizing agents such as potassium chlorate and/or peroxides. In case of fire hazardous decomposition products may be produced such as:
Ammonia
Carbon monoxide
Carbon dioxide (CO2)

Potassium chloride: Hydrogen chloride gas, Potassium oxides

5.3 Special protective actions for fire-fighters
In the event of fire and/or explosion do not breathe fumes. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear personal protective equipment. Unprotected persons must be kept away. Evacuate personnel to safe areas. Provide adequate ventilation. Avoid dust formation. Avoid breathing dust.

6.2 Environmental precautions
Fertilizers will dissolve and disperse in water and promote algae growth, Notify downstream water users of any release that may affect water quality

6.3 Methods and materials for containment and cleaning up
Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Clean contaminated surface thoroughly.
Pick up and arrange disposal without creating dust. Use a suitable vacuum cleaner.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Keep out of reach of children. Do not swallow. Avoid breathing dust or mist. Avoid contact with eyes, skin, and clothing. Keep away from heat, sparks and flame. Good housekeeping and controlling of dusts are necessary for safe handling of product. Wash thoroughly
after handling. Eating, drinking and smoking is prohibited when handling product. Use with adequate ventilation. Provide exhaust ventilation if dust is formed. Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities
Keep containers tightly closed in a dry, cool and well-ventilated place. Containers should be protected against falling down. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store away from incompatible substances. Avoid generation and spreading of dust.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

CAS: 1317-65-3
Limestone, Total dust
Cal/OSHA: 10 mg/m3 PEL inhalation; NIOSH: 10 mg/m3 REL inhalation; OSHA: 15 mg/m3 PEL inhalation

CAS: 14808-60-7 (EC: 238-878-4)
Silica, crystalline
ACGIH: 0.025 mg/m3 (resp.) for α-quartz and cristobalite TLV® inhalation; Cal/OSHA: 0.05 mg/m3 PEL inhalation; NIOSH: 0.05 mg/m3 REL inhalation; OSHA: 10 mg/m3 respirable 30 mg/m3 total PEL-TWA inhalation

CAS: 7704-34-9 (EC: 231-722-6)
Sulfur
ACGIH: 10mg/m3 TWA; OSHA: 15 mg/md PEL-TWA

8.2 Appropriate engineering controls

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
Wear as appropriate: Safety glasses with side-shields

Skin protection
Gloves: Gloves must be inspected prior to use. Replace when worn. Wash hands before breaks and at the end of workday.

Body protection
Wear appropriate protective clothing to prevent skin exposure.
Remove and wash contaminated clothing before re-use. Wash working clothes separately.

Respiratory protection
When product is used outdoors, and as intended respirators are not expected to be required. A NIOSH approved air purifying respirator with a type 95 (R or P) particulate filter may be used under conditions where airborne concentrations are expected to exceed exposure limits or respiratory irritation is experienced. Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed if workplace conditions warrant a respirator use.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Multi-color granules
Odor	No data available.
Odor threshold	No data available.
pH	No data available.
Melting point/freezing point	No data available.
Initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability limits	No data available.
Upper/lower explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility(ies)	No data available.
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Other safety information
Bulk Density: 56.2

SECTION 10: Stability and reactivity

10.1 Reactivity
Stable under recommended storage and use conditions. Some components may react if exposed to incompatible materials.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
Hazardous polymerization does not occur.

10.4 Conditions to avoid
Contact with incompatible materials. Keep away from open flames, hot surfaces and sources of ignition.

10.5 Incompatible materials
Contact with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride may cause fire and/or explosions. Some components of limestone may react vigorously with water and strong acids.

Potassium chloride: Strong acids, Strong oxidizing agents

Silica, crystalline : Hydrogen fluoride

10.6 Hazardous decomposition products
The decomposition of fertilizer products may result in the generation of some or all of the following: ammonia, formaldehyde, biuret, chlorine, cyanic acid, and cyanide, and oxides of carbon, nitrogen, phosphorus, potassium, sulfur, and chlorine, and oxides of alkaline earth metals, and certain heavier metals used as nutrients in fertilizer products, such as copper, iron, manganese, and zinc, and other irritating and toxic fumes and gases.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Potassium chloride
LD50 Oral - Rat - 2600 mg/kg
Citation: The National Institute for Occupational Safety and Health (NIOSH)
https://www.cdc.gov/niosh-rtecs/TS7AD550.html

Sulfur
LD50 Skin - Rat - >2000 mg/kg - 24 hr

Sulfur
LD50 Inhalation - Rat - > 5.43 g/m3 - 4 hr

Sulfur
LD50 Oral - Rat - > 2000 mg/kg

UREA
LD50 Oral - Rat - > 8471 mg/kg

Skin corrosion/irritation

Irritating to skin. Signs/symptoms may include localized redness, swelling, and itching.

Serious eye damage/irritation
Causes eye irritation by mechanical abrasion of dust. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Respiratory or skin sensitization
May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled

Germ cell mutagenicity
No data available

Carcinogenicity
Limestone may contain trace amounts of crystalline and amorphous silica (quartz) as a natural impurity.
The International Agency for Cancer Research (IARC) has classified crystalline silica as a carcinogen to humans (Group 1), and amorphous silica as not classifiable as to its
carcinogenicity to humans (Group 3). See "Silica, Some Silicates, Coal dust and para-Aramid Fibrils in IARC Monographs on the Evaluation of Carcinogenic Risks to
Humans", (Vol. 68).

Reproductive toxicity
No data available

STOT-single exposure
May cause respiratory irritation by inhalation

STOT-repeated exposure
Inhalation may cause damage to lungs through prolonged or repeated exposure. Dust exposure has been related to silicosis. Prolonged exposure to crystalline silica can cause silicosis, a fibrosis (scarring) of the lungs that can be progressive and may lead to death. Avoid creating and breathing dust. Use product only as intended in well ventilated outdoor areas.

Aspiration hazard
No data available.

SECTION 12: Ecological information

Toxicity
Potassium chloride
LC50 - Pimephales promelas (fathead minnow) - 880 mg/l - 96 h

Potassium chloride
EC50 - Daphnia magna (water flea) - >440 mg/l - 48 h
Remarks: (OECD Test Guideline 202)

UREA
EC50 - Daphnia magna (water flea) - > 10000 mg/l - 96 hr

UREA
LC50 - Leuciscus idus (golden orfe) - >6810 mg/l - 96 hr

Persistence and degradability
No data available.

Bioaccumulative potential
Not expected to bioconcentrate or bioaccumulate.

Mobility in soil
This product is water soluble and may disperse in soil

Results of PBT and vPvB assessment
No data available.

Other adverse effects
May be toxic to aquatic life. In sufficient quantity may deplete oxygen required by aquatic life. May cause eutrophication of ponds and lakes.

SECTION 13: Disposal considerations

Disposal of the product
Dispose in accordance with all applicable regulations. Recover or recycle if possible. Properly characterize all waste materials.

Disposal of contaminated packaging
Empty containers should be taken to an approved waste handling site for recycling or disposal.

Waste treatment
Consult federal, state/provincial and local regulations regarding the proper disposal of this material.

Sewage disposal
Prevent material from entering sewers, storm drains, other unauthorized treatment drainage systems, and natural waterways.

SECTION 14: Transport information

14.1	UN Number	None
14.2	UN Proper Shipping Name	None
14.3	Transport hazard class(es)	None
14.4	Packing group	None
14.5	Environmental hazards	None
14.6	Special precautions for user	None
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

U.S. Federal Regulations
OSHA Hazard Communication Standard
This product is classified as a hazardous chemical under 29 CFR 1910.1200 due to irritation and environmental hazards.

U.S. Federal Regulations:

- **TSCA (Toxic Substances Control Act):**
  All components of this product are listed on or exempt from the TSCA inventory.
- **CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):**
  This product does not contain components with reportable quantities.
- **SARA Title III (EPCRA):**
  - **Section 302 (Extremely Hazardous Substances): Not listed**
  - **Section 311/312 (Hazard Categories):**
    - **Acute Health Hazard: No**

- **Chronic Health Hazard: No**
- **Fire Hazard: No**
- **Pressure Hazard: No**
- **Reactivity Hazard: No**

- **Section 313 (Toxic Release Inventory):**
  This product does not contain reportable toxic chemicals above threshold levels.

State Regulations:

- **California Proposition 65:**
  This product does not contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

International Regulations:

- **Components are compliant with major global chemical inventories (e.g., DSL, EINECS), where applicable.**

Not regulated as a hazardous material by:

- **U.S. DOT**
- **IMDG**
- **IATA**

SECTION 16: Other information

This safety data sheet was developed from safety data sheets of suppliers of the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or beyond its intended use. This information is based on our present knowledge and is provided according to the relevant national regulations.

16.1 Further information/disclaimer

This information is intended as a characterization of the product in order to provide guidance for the relevant safety issues. However, this document does not provide any warranty, expressed or implied, regarding the properties of the product. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and Ferti Technologies disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purposes.

16.2 Preparation information

The classification of the mixture was set based on the regulation (US) HazCom 1910.1200 [HCS 2012].

HMIS Rating
Health: 1
Flammability: 0
Physical Hazard: 0
PPE: B

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