

Safety Data Sheet

Issue Date: 19-Jun-2020

Revision Date: 19-Jun-2020

Version 1

1. IDENTIFICATION

Product identifier

Product Name Micrel K 0-0-25

Other means of identification

SDS # GRPR-042

Recommended use of the chemical and restrictions on use

Recommended Use Fertilizer.

Details of the supplier of the safety data sheet

Supplier Address

Plant Health Intermediate DBA Douglas Plant Health
1550 E Old 210 Hwy
Liberty, MO 64068

Emergency telephone number

Company Phone Number (914) 428-1316
Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Clear, colorless liquid

Physical state Liquid

Odor Possible slight sulfur odor

Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains no substances which, at their given concentration, are considered to be hazardous to health.

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact	Immediately flush with large quantities of water for at least 15 minutes until irritation subsides. Obtain medical attention if irritation occurs.
Skin Contact	Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Continue rinsing. Obtain medical attention if irritation occurs.
Inhalation	Remove victim from contaminated atmosphere. If breathing is labored, administer Oxygen. If breathing has ceased, clear airway and start CPR. Obtain medical attention.
Ingestion	If victim is conscious, give 2 to 4 glasses of water and induce vomiting by touching finger to back of throat. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms	Eye contact may cause eye irritation. Repeated or prolonged skin contact may cause skin irritation. Ingestion may irritate the gastrointestinal tract.
-----------------	--

Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
---------------------------	------------------------

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media None known.

Specific Hazards Arising from the Chemical

Heating (flames) of closed or sealed containers may cause violent rupture of container due to thermal expansion of compressed gases. Heating causes release of Oxides of Sulfur. Sulfur dioxide is highly irritating to the eyes, respiratory tract and moist skin.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions	Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
-----------------------------	--

Environmental precautions

Environmental precautions	Keep out of "waters of the United States" because of potential aquatic toxicity. See Section 12 for additional Ecological Information.
----------------------------------	--

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
--------------------------------	---

Methods for Clean-Up	Small release: Confine and absorb small releases with sand, earth or other inert absorbents. Shovel up the absorbed material and place in drums for disposal as a chemical waste or recycle as a fertilizer as the original product was intended. Large release: Shut off release if safe to do so. Dike spill area with earth, sand or other inert absorbents to prevent runoff into surface waterways (potential aquatic toxicity), storm drains or sewers. Recover as much of the spilled product as possible using portable pump and hoses. Use recovered material as originally intended or dispose of as a chemical waste. Treat remaining material as a small release (above).
-----------------------------	---

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on Safe Handling	Avoid contact with eyes. Use only in a well-ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated contact with skin.
--------------------------------	---

Conditions for safe storage, including any incompatibilities

Storage Conditions	Store in well-ventilated areas. Do not store combustibles in the area of storage vessels. Keep away from any sources of heat or flame. Store totes and smaller containers out of direct sunlight at moderate temperatures.
Incompatible Materials	Strong oxidizers such as nitrates, nitrites or chlorates can cause explosive mixtures if heated to dryness. Acids will cause the release of Sulfur dioxide, a severe respiratory hazard. This product is not compatible with lead or mercury or their alloys. These materials of construction should not be used in handling systems or storage containers for this product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Controls Use adequate exhaust ventilation to prevent inhalation of product vapors. Keep eye wash/safety in areas where product is commonly handled.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Chemical goggles and a full face shield.

Skin and Body Protection Neoprene rubber gloves and apron should be worn to prevent repeated or prolonged contact with the liquid. Wash contaminated clothing prior to reuse.

Respiratory Protection None generally required. If conditions exist where mist may be generated, a NIOSH/MSHA approved mist respirator should be worn.

General Hygiene Considerations There are no known hazards associated with this product when use as recommended, however common good industrial hygiene practices should be followed, such as washing thoroughly after handling and before eating or drinking.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state	Liquid	Odor	Possible slight sulfur odor
Appearance	Clear, colorless liquid	Odor Threshold	Not determined
Color	Colorless		
Property	Values	Remarks • Method	
pH	7-9		
Melting point / freezing point	<-15 °C / <5 °F		
Boiling point / boiling range	106 °C / 222 °F		
Flash point	Not determined		
Evaporation Rate	Not determined		
Flammability (Solid, Gas)	Liquid-Not applicable		
Flammability Limit in Air			
Upper flammability or explosive limits	Not determined		
Lower flammability or explosive limits	Not determined		
Vapor Pressure	Not determined		
Vapor Density	Not determined		
Relative Density	1.46 (12.2 lbs/gal)		
Water Solubility	Completely soluble		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition temperature	Not determined	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Acids or acidic materials will cause the release of Sulfur dioxide.

Conditions to Avoid

High heat or fire conditions.

Incompatible materials

Strong oxidizers such as nitrates, nitrites or chlorates can cause explosive mixtures if heated to dryness. Acids will cause the release of Sulfur dioxide, a severe respiratory hazard. This product is not compatible with lead or mercury or their alloys. These materials of construction should not be used in handling systems or storage containers for this product.

Hazardous decomposition products

Potassium sulfate and Oxides of Sulfur.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Avoid contact with eyes.

Skin Contact Avoid contact with skin.

Inhalation Do not inhale.

Ingestion Do not ingest.

Component Information

Not available

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity

Not determined.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

Not available

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods****Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION**Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

Not regulated

IATA

Not regulated

IMDG

Not regulated

15. REGULATORY INFORMATION

International Inventories

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Potassium Thiosulfate	X	ACTIVE	X	X	X	X	X	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

16. OTHER INFORMATION

NFPA

Health Hazards

1

Flammability

0

Instability

0

Special Hazards

Not determined

HMIS

Health Hazards

Not determined

Flammability

Not determined

Physical hazards

Not determined

Personal Protection

Not determined

Issue Date:

19-Jun-2020

Revision Date:

19-Jun-2020

Revision Note:

New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet