

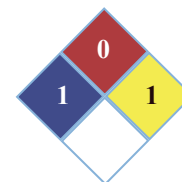
PRODUCT

MERAS Micro Kleen 250

MATERIAL SAFETY DATA SHEET



601 VAN NESS AVE. #E3-725, SAN FRANCISCO, CA. 94102
PH.866.899.9762



CONTACT:
ChemTrec 800-424-9300

SECTION I - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Micro Kleen 250
PRODUCT USE: Water treatment chemical, helps to maintain irrigation system cleanliness.
MANUFACTURER: Meras Engineering
601 Van Ness Ave #E3-725
San Francisco, CA 94102
PRODUCT INFORMATION: 1-866-899-9762 (outside the U.S. 1-415-240-4918)
TRANSPORT EMERGENCY: CHEMTREC: 1-800-424-9300 (outside the U.S. 1-703-527-3887)
OTHER INFORMATION: professional use

SECTION II - HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

SKIN: Sodium chlorite: May irritate skin.
EYES: Sodium chlorite: May irritate eyes.
INHALATION: Sodium chlorite: Respiratory irritation
INGESTION: Sodium chlorite: Gastrointestinal discomfort
Carcinogenicity: None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

SECTION III - COMPOSITION/INFORMATION ON INGREDIENTS

Component CAS-No.	Concentration
Sodium chlorite 7758-19-2	15 - 31%
Water 7732-18-5	64 - 84 %
Proprietary Components	1 - 5%

SECTION IV - FIRST AID MEASURES

SKIN CONTACT: Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water. Call a poison control center or doctor for treatment advice.
EYE CONTACT: Rinse immediately with plenty of water and seek medical advice.
INHALATION: Move to fresh air. If not breathing, give artificial respiration.
Call a poison control center or doctor for treatment advice.
INGESTION: Call a poison control center or doctor for treatment advice.
Do not induce vomiting without medical advice.
Never give anything by mouth to an unconscious person.
NOTES TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION V - FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT: Not applicable
THERMAL DECOMPOSITION: Stable under normal conditions., Decomposes on heating.
FIRE AND EXPLOSION HAZARD: Drying of this product on clothing or combustible materials may cause fire.
SUITABLE EXTINGUISHING MEDIA: Water
FIREFIGHTING INSTRUCTIONS: Wear self-contained breathing apparatus (SCBA).
Wear suitable protective equipment.

SECTION VI - ACCIDENTAL RELEASE MEASURES

REVISED: 02/16/11

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with cleanup. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

- SAFEGUARDS (PERSONNEL): Evacuate personnel to safe areas.
- SPILL CLEANUP: Dilute with water. Pick up and transfer to properly labelled containers. After cleaning, flush away traces with water.
- ACCIDENTAL RELEASE MEASURES: Prevent material from entering sewers, waterways, or low areas. Do not allow to dry.

SECTION VII - HANDLING AND STORAGE

- HANDLING (PERSONNEL): Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of workday.
- HANDLING (PHYSICAL ASPECTS): Avoid letting the product become dry.
- STORAGE: Keep tightly closed in a dry, cool and well-ventilated place. Keep away from food, drink and animal feedingstuffs. Avoid heat, freezing and ultraviolet light. Do not allow to dry. Keep away from: Strong acids and oxidizing agents.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

- ENGINEERING CONTROLS: Ensure adequate ventilation, especially in confined areas.
- PERSONAL PROTECTIVE EQUIPMENT**
- RESPIRATORY PROTECTION: Where there is potential for airborne exposures in excess of applicable limits, wear approved respiratory protection with dust/mist cartridge.
- HAND PROTECTION: Additional protection: Impervious gloves
- EYE PROTECTION: Wear coverall chemical splash goggles. Additionally wear a face shield where the possibility exists for face contact due to splashing, spraying or airborne contact with this material.
- SKIN AND BODY PROTECTION: Where there is potential for skin contact, have available and wear as appropriate, impervious gloves, apron, pants, jacket, hood and boots.
- PROTECTIVE MEASURES : Avoid exposure - obtain special instructions before use. Wear suitable gloves and eye/face protection.
- EXPOSURE GUIDELINES**
- EXPOSURE LIMIT VALUES: None established.

SECTION IX -PHYSICAL AND CHEMICAL PROPERTIES

- FORM: Liquid
- COLOR: Light yellow
- ODOR: Odourless, slight chlorine
- PH: > 12
- FREEZING POINT: ca. -18 °C (0 °F)
- CRYSTALLIZATION TEMPERATURE: ca. -9 °C (16 °F)
- BOILING POINT: ca. 106 °C (223 °F)
- VAPOUR PRESSURE: ca. 15.5 mm Hg at 20 °C (68 °F)
- DENSITY: ca. 10.05 lb/gal
- SPECIFIC GRAVITY: 1.2 - 1.23
- WATER SOLUBILITY: miscible

SECTION X - STABILITY AND REACTIVITY

REVISED: 02/16/11

STABILITY: Stable at normal temperatures and storage conditions. Decomposes on heating.
 INCOMPATIBILITY: Strong acids and oxidizing agents Organic materials, chlorinated compounds, Reducing agents
 HAZARDOUS REACTIONS: Contact with acids, organic materials, reducing agents and oxidizing agents will release toxic gases of chlorine and/or chlorine dioxide.

SECTION XI - TOXICOLOGICAL INFORMATION

SODIUM CHLORITE

DERMAL LD50: 134 mg/kg , rabbit
 ORAL LD50: 284 mg/kg , rat
 INHALATION 4 H LC50: 0.23 mg/l , rat
 SKIN IRRITATION: irritant
 EYE IRRITATION: irritant
 REPEATED DOSE TOXICITY: Oral
 rat
 Abnormal decrease in number of red blood cells, Abnormal decrease in red - blood -cell haemoglobin (hemoglobinemia)
 Oral
 rat
 Organ weight changes, Liver
 Oral
 Monkey
 Thyroid effects
 CARCINOGENICITY: Animal testing did not show any carcinogenic effects.
 MUTAGENICITY: Did not cause genetic damage in cultured mammalian cells.
 REPRODUCTIVE TOXICITY: Animal testing showed effects on reproduction at levels equal to or above those causing parental toxicity.
 TERATOGENICITY: Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

SECTION XII - ECOLOGICAL INFORMATION

AQUATIC TOXICITY

SODIUM CHLORITE 96 h LC50: Cyprinodon variegatus (sheepshead minnow) 75 mg/l
 96 h EC50: Desmodesmus subspicatus (green algae) 1.32 mg/l
 72 h ErC50: Algae 1.2 mg/l
 48 h EC50: Daphnia magna (Water flea) 0.0146 mg/l

ADDITIONAL ECOLOGICAL INFORMATION: No data is available on the product itself.

SECTION XIII - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL : Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.
 ENVIRONMENTAL HAZARDS : Empty containers should be taken to an approved waste handling site for recycling or disposal.

If recycling is not practicable, dispose of in compliance with local regulations.

SECTION XIV - TRANSPORT INFORMATION

REVISED: 02/16/11

DOT	UN number:	1908
	Proper shipping name:	Chlorite solution
	Class:	8
	Packing group:	II
	Labelling No.:	8
IATA_C	UN number:	1908
	Proper shipping name:	Chlorite solution
	Class:	8
	Packing group:	II
	Labelling No.:	8
IMDG	UN number:	1908
	Proper shipping name:	Chlorite solution
	Class:	8
	Packing group:	II
	Labelling No.:	8
Marine pollutant:	yes (Sodium chlorite)	
Marine pollutant		

SECTION XV - REGULATORY INFORMATION

TSCA STATUS:	Listed.
SARA 313 REGULATED:	SARA 313: This material does not contain any chemical components with Chemical(s) known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
EPA REG. NO.:	9150-7 In the United States this product is regulated by the US Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.
CALIFORNIA PROP. 65:	Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known
NJ RIGHT TO KNOW:	Substances on the New Jersey Workplace Hazardous Substance List Regulated Chemical(s) present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Sodium chlorite

SECTION XVI - OTHER INFORMATION

CONTACT PERSON: MSDS Coordinator, Meras Engineering Inc, San Francisco, CA 94102, (866) 899-9762

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.