

Meras Water Solutions

# SAFETY DATA SHEET

## SECTION 1 - IDENTIFICATION

**Product Identifier:** Micro San 220  
**Product Use:** Antimicrobial solution for agriculture.  
**Chemical Family:** Oxidizer  
**Registration Number:** 63838-20-81811

Meras Water Solutions  
 (866) 899-9762  
 4213 Technology Dr. Suite A  
 Modesto, CA 95356

**24 Hr. Emergency Tel.#:** 1-800-255-3924

## SECTION 2 - HAZARDS IDENTIFICATION

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). These requirements differ from the classification criteria and hazard information required for safety data sheets of non-pesticide chemicals. Please see Section 15 for FIFRA labeling information.

### Classification of the Substance or Mixture:

Skin Corrosion - Category 1  
 Serious Eye Damage - Category 1  
 Oxidizing Liquids - Category 2  
 Corrosive to Metals - Category 1  
 Organic Peroxides - Type F  
 Acute Toxicity - Oral Category 4  
 Acute Toxicity - Dermal Category 4



**Signal Word:** DANGER

### Hazard Statements:

Causes severe skin burns and eye damage  
 May intensify fire; oxidizer  
 May be corrosive to metals  
 Heating may cause fire  
 Harmful if swallowed  
 Harmful in contact with skin

### Precautionary Statements:

#### Prevention

Wear protective gloves/protective clothing/eye protection/face protection.  
 Wash hands thoroughly after handling  
 Keep away from heat/sparks/open flames/hot surfaces - No smoking.  
 Keep/Store away from clothing/combustible materials.  
 Do not eat, drink or smoke when using this product.  
 Keep only in original container.  
 Take any precaution to avoid mixing with combustibles.

#### Response

**IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.  
**IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
**IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a POISON CENTER or doctor/physician if you feel unwell.  
**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
 Immediately call a POISON CENTER or doctor/physician.  
 For specific treatment see Section 4 First Aid.  
 Wash contaminated clothing before reuse.  
 In case of fire: Use dry sand, dry chemical, or alcohol resistant foam for extinction.  
 Absorb spillage to prevent material damage.

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## Storage

It is recommended to store this product at temperatures where the bulk liquid will not exceed 86°F / 30°C. Keep cool.

Store away from other materials. Protect from sunlight.

Store locked up.

Store in a corrosive resistant container with a resistant inner liner.

## Disposal

Dispose of contents/container in accordance with local regulations.

## Hazards not Otherwise Classified:

No other hazards classified.

## SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Synonym	CAS Number	Concentration
HYDROGEN PEROXIDE	H2O2	7722-84-1	4.7-5.2%
ACETIC ACID	NONE	64-19-7	40-50%
PEROXYACETIC ACID	PAA	79-21-0	21.8-22.8%

## SECTION 4 - FIRST-AID MEASURES

**Inhalation:** Remove source of exposure or move person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor. Symptoms of pulmonary edema can be delayed up to 48 hours after exposure. If direct contact during rescue breathing poses a threat to the first aid provider, "Avoid mouth-to-mouth contact by using a barrier device."

**Skin Contact:** Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse skin with lukewarm, gently flowing water/shower with a flushing duration of 30 minutes. Immediately call POISON CENTER/doctor. Wash contaminated clothing before re-use.

**Eye Contact:** Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 30 minutes. Take care not to rinse contaminated water into the unaffected eye or into the face. Immediately call a POISON CENTER/doctor.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. If vomiting occurs naturally, lie on your side, in the recovery position.

**Most Important Symptoms and Effects, both Acute and Delayed:** Causes severe skin burns and eye damage, burning of the mouth, throat, and esophagus.

**Indication of any Immediate Medical Attention and Special Treatment Needed:** Treat symptomatically

## SECTION 5 - FIRE-FIGHTING MEASURES

**Extinguishing Media:** Dry powder, foam, carbon dioxide, water spray, sand. Do NOT use heavy water stream.

**Special hazards arising from the substance or mixture:** Non combustible. May give off irritating or toxic fumes (or gases) in a fire.

**Flammability classification (OSHA 29 CFR 1910.106) (Hazcom 2012):** Non flammable

**Hazardous Combustion Products:** May cause fire and explosions when in contact with incompatible materials.

**Special protective equipment and precautions for firefighters:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

**Methods and materials for containment and cleaning up:** SMALL SPILLS (less than 1 gallon): Neutralize with soda ash or cover with dry earth, sand or other non combustible material, place into loosely covered plastic containers for later disposal. If neutralized, material can be diluted into drain. LARGE SPILL: Restrict access to area until completion of clean up. Prevent liquid from entering sewers or waterways. Stop or reduce leak if safe to do so. Dike with inert material (sand, earth, etc.). Collect into plastic containers for disposal. Ensure adequate decontamination of tools and equipment following clean up.

**Special spill response procedures:** Collect spills in plastic containers only. Prevent from entering sewers, waterways, or low areas.

## SECTION 7 - HANDLING AND STORAGE

**Precautions for Safe Handling:** Wear at least chemical resistant gloves and eye protection, face shield, and chemical resistant garments when handling, moving or using this product. Do not contaminate water, food, or feed by storage or disposal.

**Conditions for Safe Storage:** It is recommended to store this product at temperatures where the bulk liquid will not exceed 86°F / 30°C. Store in a cool, dry, well ventilated place away from direct sunlight. Keep container closed when not in use.

**Incompatible Materials:** Avoid strong reducing agents, soft metals, heat and bases (unless product has been diluted to less than 1000ppm, then bases may be used to gradually adjust to a pH of less than 9).

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## SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS:		OSHA PEL		ACGIH TLV	
		TWA	STEL/CEILING	TWA	STEL
CHEMICAL NAME	CAS NO.				
ACETIC ACID	64-19-7	10 ppm	15 ppm/40 ppm (CalOSHA)	10 ppm	15 ppm
HYDROGEN PEROXIDE	7722-84-1	1 ppm	1 ppm/N/A (CalOSHA)	1 ppm	N/A
PERACETIC ACID	79-21-1	N/A	N/A	N/A	0.4 ppm

**Ventilation and engineering measures:** Forced air, local exhaust, or open air is adequate.

**Respiratory Protection:** No additional respiratory protection needed. If exposure levels are excessive, use an approved respirator.

**Skin Protection:** Wear chemical resistant gloves and chemical resistant garments when handling, wash garments before re-use.

**Eye/Face Protection:** Wear chemical goggles; also wear a face shield if splashing hazard exists.

**Other Protective Equipment:** Eye wash facility and emergency shower should be in close proximity.

**General Hygiene Conditions:** Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industry hygiene and safety practice.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Clear colorless liquid

**Odor:** Vinegar odor

**pH:** <1 (1:10)

**Melting/Freezing point:** <-17°C /<0°F

**Initial boiling point and boiling range:** No information available

**Flash Point:** >200° F / 93° C

**Flammability (solid, gas):** Non flammable

**Vapor Pressure (mm Hg):** 2.33 (peracetic acid component)

**Specific gravity:** 1.11 g/mL

**Solubility in Water:** Complete

**Auto ignition Temperature:** 518° F / 270° C

**Decomposition temperature:** No information available

**Viscosity:** 5-15 cSt at 20°C / 68°F

**Volatiles (% by weight):** >99

**Volatile organic Compounds (VOC's):** No information available

## SECTION 10 - STABILITY AND REACTIVITY

**Reactivity:** Reactive with bases, metals, reducing agents and combustible materials

**Chemical Stability:** Stable for up to 1 year when stored under normal conditions.

**Possibility of Hazardous Reactions:** May react with incompatible materials

**Conditions to Avoid:** Incompatible materials and high temperatures

**Incompatible Materials:** Reactive with bases, metals, reducing agents and combustible materials

Solutions of sodium and/or potassium hydroxide may be mixed with or added to water containing peroxyacetic acid solutions (<4000 ppm) with no known adverse health, safety or physical concerns. No known side reactions or noxious by-products will occur.

**Hazardous Decomposition Products:** Oxygen which supports combustion.

## SECTION 11 - TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure:**

Routes of entry - inhalation: YES

Routes of entry - skin & eye: YES

Routes of entry - ingestion: YES

Routes of entry - skin absorption: NO

**Potential Health Effects:**

**Signs and symptoms of short term (acute) exposure:**

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**Inhalation:** May cause irritation to respiratory system in mist/vapor form.

**Ingestion:** Corrosive! Swallowing causes severe burns of mouth, throat, and stomach. Severe scarring of tissue, corrosion, permanent tissue destruction and death may result. Symptoms may include severe pain, nausea, vomiting, diarrhea, shock, hemorrhaging and/or fall in blood pressure. Damage may appear days after exposure.

**Skin:** Corrosive! Contact with skin causes irritation or severe burns and scarring with greater exposures.

**Eye:** Corrosive! Causes irritation of eyes, and with greater exposures it can cause burns that may result in permanent impairment of vision, even blindness.

## Potential Chronic Health Effects:

**Mutagenicity:** Not known to have mutagenic effects in humans or animals.

**Carcinogenicity:** No components are listed as carcinogens by ACGIH, IARC, OSHA, or NTP.

**Reproductive effects:** No known reproductive effects in humans or animals.

**Sensitization to material:** Not a known sensitizer in humans or animals.

**Specific target organ effects:** No known specific target organ effects.

**Medical conditions aggravated by overexposure:** No information available

**Toxicological data:** The calculated ATE values for this mixture are:

ATE oral = 640 mg/kg

ATE dermal = 1905 mg/kg

ATE inhalation = >20 mg/L or >20,000 ppm

## SECTION 12 - ECOLOGICAL INFORMATION

**Ecotoxicity:** No information available.

**Persistence and degradability:** Not expected to persist. Expected to readily biodegrade.

**Bioaccumulation potential:** Not expected to bio accumulate.

**Mobility in soil:** No information available

## SECTION 13 - DISPOSAL CONSIDERATIONS

**Handling for disposal:** Do not contaminate water, food, or feed by storage and/or disposal. When handling refer to protective measures listed in sections 7 and 8. Empty residue from containers, rinse container well.

**Method of disposal:** Dispose of in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

**RCRA:** If product becomes a waste, it does meet the criteria of a hazardous waste as defined by the US EPA, because of: Corrosivity D002

## SECTION 14 - TRANSPORTATION INFORMATION

Certain shipping modes or package sizes may have exceptions from the transport regulations. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes.

Please note the GHS and DOT Standards are NOT identical and therefore can have varying classifications

**US 49 CFR/DOT/IATA/IMDG Information:**

**UN No.:** 3109

**UN Proper Shipping Name:** Organic peroxide type F, liquid (<=25% peracetic acid with <=26% hydrogen peroxide)

**Transportation hazard class(es):** 5.2 (8)

**Environmental hazards:** No hazards identified.

## SECTION 15 - REGULATORY INFORMATION

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FIFRA Classification/Typical Hazard Labeling, as outlined in EPA Label Review Manual

**Hazard Data**

Signal Word	DANGER
Acute Toxicity, oral	Category III: Harmful if swallowed
Acute Toxicity, dermal	Category II: May be fatal if absorbed through skin
Acute Toxicity, inhalation	Category II: May be fatal if inhaled.
Skin irritation/corrosion	Category I: Corrosive. Causes skin burns
Serious eye damage	Category I: Corrosive, Causes irreversible eye damage
Sensitization	Not Classified (NC)
Environmental (aquatic) toxicity	This pesticide is toxic to fish and other aquatic organisms.

**US Federal Information:**

**TSCA information:** All components are listed on the TSCA inventory.

**US CERCLA Reportable quantity (RQ):** Acetic acid has a RQ of approximately 10000 lbs. of as is chemical. Hydrogen Peroxide has a RQ of 20000 lbs. of as is chemical.

**US EPCRA Reportable quantity (Extremely hazardous substance RQ):** Peracetic acid has a RQ of approximately 2200 lbs. of as is chemical.

**Clean Air Act Section 112(r) Threshold Quantity (TQ):** Peracetic acid has a TQ of approximately 45000 lbs. of as is chemical.

**SARA Title III:** Reactivity Hazard, Acute Health Hazard

US State Right to Know Laws:

International Information:

**SECTION 16 - OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards 3</b>	<b>Flammability 1</b>	<b>Stability 1</b>	<b>Special Hazards OX, COR</b>
<b>HMIS</b>	<b>Health Hazards 3</b>	<b>Flammability 1</b>	<b>Physical Hazard 1</b>	<b>Personal Protection C</b>

**NFPA/HMIS Ratings Legend**

Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

Special hazards: OX = Oxidizer; COR = Corrosive

Personal Protection = C (safety glasses, gloves, protective apron)

**Legend:**

**SARA:** The Superfund Amendments and Reauthorization Act

**RCRA:** Resource Conservation and Recovery Act

**TSCA:** Toxic Substances Control Act

**CFR:** Code of Federal Regulations

**DOT:** Department of Transportation

**ATE:** Acute Toxicity Estimate

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