

SECTION 1 - IDENTIFICATION

Product Identifier: Meras 4220T
Product Use: Antiscalant
Common Names: N/A

 Meras Water Solutions
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24 Hr. Emergency #: ChemTrec (800) 424-9300

SECTION 2 - HAZARDS IDENTIFICATION
Classification of the Substance or Mixture:

Skin Corrosion/Irritation – Category 1
 Serious Eye Damage – Category 1



Signal Word: WARNING

Hazard Statement(s):

H315: Causes skin irritation.
 H319: Causes serious eye irritation.

Precautionary Statements:

P260: Do not breathe dust/fume/gas/mist/vapors/spray.
 P262: Do not get in eyes, on skin, or on clothing.
 P264: Wash skin thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P271: Use only outdoors or in a well-ventilated area.

Response-

P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician IF you feel unwell.
 P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
 P333+313: If skin irritation or a rash occurs: Get medical advice/attention.
 P362: Take off contaminated clothing and wash before reuse.

Storage-

P403+233: Store in a well-ventilated place. Keep container tightly closed.
 P405: Store locked up.

Disposal-

P501: Dispose of contents/container to an approved waste disposal plant.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient(s)	CAS No.	Concentration (%)
Aminotri (methylene phosphonic acid) (AMP)	6419-19-8	7.5%
Phosphonobutane tricarboxylic acid (PBTC)	37971-36-1	3%

SECTION 4 - FIRST-AID MEASURES

Inhalation:	Give oxygen or artificial respiration if needed. If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
Skin Contact:	Take off contaminated clothing and shoes immediately. Promptly flush skin with water for at least 15 minutes to ensure all chemical is removed. If reddening and/or a rash develops and/or persists, obtain medical attention.
Eye Contact:	Flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Remove contact lenses if present and easy to do so. Seek immediate medical attention. Continue rinsing eyes during transport to hospital.
Ingestion:	Rinse mouth with water. Do NOT induce vomiting. If vomiting occurs, give more water or milk. Never give anything by mouth to an unconscious person. Seek immediate medical attention.
Most Important Symptoms And Effects, Both Acute And Delayed:	The most important known symptoms and effects are described in the labelling (see Section 2) and/or Section 11.
Indication Of Any Immediate Medical Attention And Special Treatment Needed:	No data available.

SECTION 5 - FIRE-FIGHTING MEASURES

Suitable Extinguishing Equipment:	Water Spray Water Fog Carbon Dioxide Alcohol-Resistant Foam Dry Chemical
Special Hazards Arising From The Substance Or Mixture:	None known.
Special Protective Equipment And Precautions For Firefighters:	Firefighters should wear full-face, positive-pressure respirators. If incinerated, may release toxic fumes. Use water spray to cool unopened containers. Gives off Hydrogen by reaction with metals. Hydrogen is flammable and potentially explosive. Use caution. See Section 7 for more information on safe handling. See Section 8 for more information on personal protection equipment. See Section 13 for disposal information.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, And Emergency Procedures:	Use personal protective equipment including vapor respirator. Keep from contacting skin or eyes. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Stay upwind of spilled material.
Environmental Precautions:	Prevent further release (leakage/spillage) if safe to do so. Do not allow product to enter drains. Do not allow to drain to environment.
Methods And Materials For Containments And Cleaning Up:	Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). Spills may be diluted with water and treated with a neutralizing agent like Sodium Bicarbonate to absorb/neutralize any spilled material. Place contaminated material into suitable, closed containers for disposal. Dispose of contaminated material according to Section 13. After spillage has been collected, area may be flushed with water or wet-brushed. Ensure adequate ventilation.

Reference To Other Sections: See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment. See Section 13 for information on proper disposal.

SECTION 7 - HANDLING AND STORAGE

Handling Precautions: Avoid breathing vapors or mist.
Avoid contact with eyes, skin, or clothing.
Use approved containers only.
Keep containers closed when not in use.
Do not expose containers to open flame, excessive heat, or direct sunlight.
Do not puncture or drop containers.
Handle with care and avoid spillage on the floor.
Keep material out of reach of children.
Keep material away from incompatible materials.
Wash thoroughly after handling.
Ensure adequate ventilation.

Storage Requirements: Keep container tightly closed.
Avoid inhalation of vapors or mist upon opening container.
Store in a well-ventilated place.
Do not store in direct sunlight.

Incompatible Materials: Store away from strong acids, strong bases, strong oxidizing agents, strong reducing agents.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

<u>Component(s)</u>	<u>CAS No.</u>	<u>PEL</u>	<u>OSHA Ceiling</u>	<u>STEL</u>	<u>REL</u>	<u>NIOSH Ceiling</u>	<u>TLV</u>	<u>ACGIH Ceiling</u>

Engineering Controls:

All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94).
Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas.
Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.

Personal Protective Equipment:

All safety equipment should be tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Type of protective equipment should be selected based on concentration amount and conditions of use of this material. Full-face vapor respirator may be required as backup to engineering controls when proper engineering controls are not in place to keep TLV and PEL limits below defined thresholds. Respiratory protection must comply with 29 CFR 1910.134.

Eye/Face-

- Goggles (chemical-resistant)

Skin/Body-

- Gloves (PVC, neoprene, or nitrile).

Respiratory-

- N/A

General Hygiene Considerations-

- Handle in accordance with good industrial hygiene and safety practice.
- Keep away from foodstuffs, beverages, and feed.
- Wash face, hands, and any exposed skin thoroughly after handling.
- Appropriately dispose of contaminated clothing; wash before re-use, if applicable.
- Avoid contact with eyes, skin, and clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form: Liquid
Color: Clear
Odor: Odorless
pH: ~6.5
Melting/Freezing Point:
Initial Boiling Point and Boiling Range:
Flash Point: N/A
Evaporation Rate:
Flammability (Solid, Gas):
Upper/Lower Flammability or Explosive Limits:

Vapor Pressure (Mm Hg):
Vapor Density:
Relative Density: 9.63 lbs/gal
Specific Gravity: 1.16
Solubility in Water: 100%
Partition Coefficient (N-Octanol/Water):
Auto Ignition Temperature:
Decomposition Temperature:
Viscosity:
Volatiles (% By Weight):
Volatile Organic Compounds (VOC's):

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: Not reactive under normal and ambient conditions
Chemical Stability: Stable under normal and ambient conditions.
Possibility of Hazardous Reactions: No possibility of hazardous reactions known.
Conditions to Avoid: None known.
Incompatible Materials: Strong acids, strong bases, strong oxidizing agents, strong reducing agents.
Hazardous Decomposition Products: None known.

SECTION 11 - TOXICOLOGICAL INFORMATION

Routes of Entry:	Eyes, skin, ingestion, dermal absorption.
Acute Toxicity:	
Oral Toxicity (LD ₅₀)-	>2858 mg/kg (Rat)
Dermal Toxicity (LD ₅₀)-	>653 mg/kg (Rabbit)
Inhalation Toxicity (LD ₅₀)-	No data available.
Primary Eye Irritation:	None known.
Primary Skin Irritation:	None known.
Sensitization:	None known.
Carcinogenicity:	
IARC-	No component of this product present at levels $\geq 0.1\%$ is identified as a carcinogen or potential carcinogen.
ACGIH-	No component of this product present at levels $\geq 0.1\%$ is identified as a carcinogen or potential carcinogen.
NTP-	No component of this product present at levels $\geq 0.1\%$ is identified as a carcinogen or potential carcinogen.
OSHA-	No component of this product present at levels $\geq 0.1\%$ is identified as a carcinogen or potential carcinogen.
Reproductive Toxicity:	No data available.
Specific Target Organ Toxicity-Single Exposure:	No data available.
Specific Target Organ Toxicity-Repeated Exposure:	May cause damage to organs through prolonged or repeated exposure.
Aspiration Hazard:	No data available.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:	
Toxicity to Fish-	LD ₅₀ - Rainbow Trout: >2465 mg/l (96 hr.)
Toxicity to Daphnia and Other Aquatic Invertebrates-	LC ₅₀ - Daphnia magna (Water Flea): >575 mg/l (48 hr.)
Persistence and Degradability:	No data available.
Bioaccumulation Potential:	No data available.

Mobility in Soil: No data available.

Results of PBT and vPvB Assessment: Not conducted.

Other Adverse Effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

SECTION 13 - DISPOSAL CONSIDERATIONS

Recommendation: Hazardous wastes shall be managed responsibly. Contact a licensed professional waste disposal service to dispose of this material. Do not allow product to reach the sewage system. Disposal must comply will local, state, and federal regulations. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of an NPDES permit.

Cleansing agent: Water should be used as a cleansing agent to rinse containers and/or soiled PPE.

SECTION 14 - TRANSPORTATION INFORMATION

US DOT
NOT DOT REGULATED

IMDG
NOT REGULATED

IATA
NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

EPA Registration No.:
Cal DPR Registration No.:

<u>Listed Hazardous Chemical</u>	<u>CAS No.</u>	<u>EPCRA EHS</u>	<u>CERCLA HS</u>	<u>CAA 112r</u>	<u>EPCRA 313</u>	<u>Prop 65 Listed</u>
		<u>RQ (lbs)</u>	<u>TPQ (lbs)</u>	<u>RQ (lbs)</u>	<u>TQ (lbs)</u>	

Legend

EPCRA- Emergency Planning and Community Right-to-Know Act
 CERCLA- Comprehensive Environmental Response, Compensation and Liability Act
 CAA- Clean Air Act
 RQ- Release Quantity
 TPQ- Threshold Planning Quantity
 EPA- Environmental Protection Agency
 DPR- Department of Pesticide Registration

SECTION 16 - OTHER INFORMATION

NFPA



NFPA Rating Explanation Guide					
RATING NUMBER	HEALTH HAZARD	FLAMMABILITY HAZARD	INSTABILITY HAZARD	RATING SYMBOL	SPECIAL HAZARD
4	Can be lethal	Will vaporize and readily burn at normal temperatures	May explode at normal temperatures and pressures	ALK	Alkaline
3	Can cause serious or permanent injury	Can be ignited under almost all ambient temperatures	May explode at high temperature or shock	ACID	Acidic
2	Can cause temporary incapacitation or residual injury	Must be heated or high ambient temperature to burn	Violent chemical change at high temperatures or pressures	COR	Corrosive
1	Can cause significant irritation	Must be preheated before ignition can occur	Normally stable. High temperatures make unstable	OX	Oxidizing
0	No hazard	Will not burn	Stable	☸	Reacts violently or explosively with water
				☸OX	Reacts violently or explosively with water and oxidizing

HMIS III

1 HEALTH

0 FLAMMABILITY

0 REACTIVITY

B PERSONAL PROTECTION

PERSONAL PROTECTION INDEX					
A	☒		G	☒ + ☒ + ☒	
B	☒ + ☒		H	☒ + ☒ + ☒ + ☒	
C	☒ + ☒ + ☒		I	☒ + ☒ + ☒	
D	☒ + ☒ + ☒		J	☒ + ☒ + ☒ + ☒	
E	☒ + ☒ + ☒		K	☒ + ☒ + ☒ + ☒	
F	☒ + ☒ + ☒ + ☒		X	Consult your supervisor or S.O.P. for "SPECIAL" handling directions	
A	n	o	p	q	r
Safety Glasses	Splash Goggles	Face Shield & Eye Protection	Gloves	Boots	Synthetic Apron
t	u	w	y	z	s
Dust Respirator	Vapor Respirator	Dust & Vapor Respirator	Full Face Respirator	Airline Hood or Mask	Full Suit
Additional Information					

No warranty guarantee or representation is made to the accuracy, reliability, or completeness of this SDS. The information provided in this SDS 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. It is the user's responsibility to satisfy any inquiries as to the suitability of such information for his/her own particular use.