

SECTION 1 - IDENTIFICATION

Product Identifier: Meras 3222

Product Use: Cooling Water Treatment

Common Names:

Meras Water Solutions
 4213 Technology Dr Suite A, E3-725
 Modesto CA, 95356
 USA
 (866)899-9762
 info@meras.com

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/Irritation – Category 1



Signal Word: DANGER

Hazard Statement(s):
 H314: Causes severe skin burns and eye damage.
 H318: Causes serious eye damage.

Precautionary Statements:

Prevention-
 P261: Avoid breathing dust/fumes/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.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response-

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 person 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.
 P310: Immediately call a POISON CENTER or doctor/physician.
 P363: Wash contaminated clothing 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 (%)
2-Phosphonobutane-1,2,4-Tri Carboxylic Acid	37971-36-1	5-10%
Benzotriazole	95-14-7	3-5%
Isopropyl Alcohol	67-63-0	1-3%

SECTION 4 - FIRST-AID MEASURES

Inhalation: Move person to fresh air. In case of unconsciousness, place patient stably in side position for transportation.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Remove all contaminated apparel under the shower. Wash off with plenty of water. Do not attempt to neutralize with chemical agents. Immediate medical attention is required.

Eye Contact: Rinse opened eye for at least 15 minutes under running water. Call a physician.

Ingestion: Do NOT induce vomiting; immediately call for medical help. Rinse mouth with water. Immediately call a doctor.

Most Important Symptoms And Effects, Both Acute And Delayed: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Indication Of Any Immediate Medical Attention And Special Treatment Needed: Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

SECTION 5 - FIRE-FIGHTING MEASURES

Suitable Extinguishing Equipment: Dry Chemical
Carbon Dioxide
Water Fog
Foam
Do not use water jets.

Special Hazards Arising From The Substance Or Mixture: During fire, gases hazardous to health may be formed.

Special Protective Equipment And Precautions For Firefighters: Firefighters should wear an approved self-contained breathing apparatus (SCBA).
Use water spray to cool unopened containers.
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: Wear appropriate PPE. Use respirator if thresholds are exceeded.
Keep from contacting skin or eyes.
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 materials such as dry sand, inert earth, or a dry acid neutralizer. Do not use combustible material. Place contaminated material into suitable, closed containers for disposal. Dispose of contaminated material according to Section 13. Ensure adequate ventilation. Following product recovery, flush area with water.

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 contact with eyes, skin, or clothing.
 Use approved containers only.
 Keep containers closed when not in use.
 Keep ignition sources away.
 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.
 Store in a well-ventilated place.
 Avoid storage in direct sunlight.

Incompatible Materials: Strong oxidizing agents.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

Component(s)	CAS No.	OSHA <u>PEL</u> <u>Ceiling</u>	NIOSH <u>REL</u> <u>Ceiling</u>	ACGIH <u>TLV</u> <u>Ceiling</u>
Isopropyl Alcohol (IDHL: 2,000 ppm)	67-63-0	980 mg/m ³	980 mg/m ³	491 mg/m ³

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-
 •Safety goggles (chemical-resistant)
 •Face shield if splashing is possible.

Skin/Body-
 •Gloves (PVC, neoprene, or nitrile)
 •Apron

Respiratory-
 •Air-purifying respirator, if thresholds are exceeded.

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-brown
Odor: Acrylic

Vapor Pressure (Mm Hg): 22.87 hPa
Vapor Density: No data available.
Relative Density: 10.02 lbs/gal

pH: <2
Melting/Freezing Point: 38°F
Initial Boiling Point and Boiling Range: 212°F
Flash Point: No data available.
Evaporation Rate: Slower than ether.
Flammability (Solid, Gas): No data available.
Upper/Lower Flammability or Explosive Limits: No data available.

Specific Gravity: 1.2
Solubility in Water: No data available.
Partition Coefficient (N-Octanol/Water): No data available.
Auto Ignition Temperature: N/A
Decomposition Temperature: No data available.
Viscosity: No data available.
Volatiles (% By Weight): ~18.52%
Volatile Organic Compounds (VOC's): No data available.

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 data available.
Conditions to Avoid: Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible Materials: Strong oxidizing agents.
Hazardous Decomposition Products: No data available.

SECTION 11 - TOXICOLOGICAL INFORMATION

Routes of Entry: Eyes, skin, ingestion, inhalation

Acute Toxicity:
Benzotriazole
 Oral Toxicity (LD₅₀)- 600 mg/kg (Rat)
 Inhalation Toxicity (LD₅₀)- 1.9 mg/l (Rat)

Isopropyl Alcohol
 Oral Toxicity (LD₅₀)- 4.7 g/kg (Rat)
 Dermal Toxicity (LD₅₀)- 12,800 mg/kg (Rabbit)

Primary Eye Irritation: Causes serious eye damage.
Primary Skin Irritation: Causes severe skin burns and eye damage.

Sensitization: No data available.

Carcinogenicity:
 IARC- No data available.
 ACGIH- No data available.
 NTP- No data available.
 OSHA- No data available.

Reproductive Toxicity: Not expected to cause reproductive or developmental effects.

Specific Target Organ Toxicity-Single Exposure: No data available.

Specific Target Organ Toxicity-Repeated Exposure: No data available.

Aspiration Hazard: No data available.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:
 Toxicity to Fish-
Isopropyl Alcohol- LC₅₀- Bluegill (*Lepomis macrochirus*): >1,400 mg/l (96 H)

 Toxicity to Daphnia and Other
 Aquatic Invertebrates-
Benzotriazole- EC₅₀- Water Flea (*daphnia magna*): 141.6 mg/l

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: No data available.

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 empty containers and/or soiled PPE.

SECTION 14 - TRANSPORTATION INFORMATION

US DOT

UN Number: 3264
Class: 8
Packing Group: II
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.
(2-PHOSPHONOBUTANE-1,2,4-TRICARBOXYLIC ACID)
Marine Pollutant: No



IMDG

UN Number: 3264
Class: 8
Packing Group: II
EMS-No.: F-A, S-B
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.
(2-PHOSPHONOBUTANE-1,2,4-TRICARBOXYLIC ACID)



IATA

UN Number: 3264
Class: 8
Packing Group: II
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.
(2-PHOSPHONOBUTANE-1,2,4-TRICARBOXYLIC ACID)



Limited Quantity: 1 L
Excepted Quantity: E2 (30 ml/500 ml)

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>		
Isopropyl Alcohol	67-63-0					Yes	

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	☼	Radioactive
				W	Reacts violently or explosively with water
				W OX	Reacts violently or explosively with water and oxidizing

HMIS III

1 HEALTH

0 FLAMMABILITY

0 REACTIVITY

D 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
Safety Glasses	Splash Goggles	Face Shield & Eye Protection	Gloves	Boots	Synthetic Apron
t	u	w	y	z	Full Suit
Dust Respirator	Vapor Respirator	Dust & Vapor Respirator	Full Face Respirator	Airline Hood or Mask	Additional Information

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