

SECTION 1 - IDENTIFICATION

Product Identifier: Meras 2309

Product Use: Boiler Water Treatment

Common Names:

Meras Engineering, Inc.
 601 Van Ness Ave. E3-725
 San Francisco, CA 94102
 USA
 (415)240-4918
 orders@meras.com

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

SECTION 2 - HAZARDS IDENTIFICATION

Classification of the Substance or Mixture:
 Skin Corrosion/Irritation – Category 1A



Signal Word: DANGER

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

Precautionary Statements:

Prevention-

- 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-

- P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- 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 (%)
Confidential business information has been removed without affecting the overall safety information on the safety data sheet.		

SECTION 4 - FIRST-AID MEASURES

Inhalation: In case of unconsciousness place patient stably in side position for transportation.

Skin Contact: Immediately wash with water and soap and rinse thoroughly. Wash clothing before reuse.

Eye Contact: Do not rub eye. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse. Continue to rinse for at least 15 minutes.

Ingestion: Do not induce vomiting; immediately call for medical help.

Most Important Symptoms And Effects, Both Acute And Delayed: No data available.

Indication Of Any Immediate Medical Attention And Special Treatment Needed: No data available.

SECTION 5 - FIRE-FIGHTING MEASURES

Suitable Extinguishing Equipment: Dry Chemical
Carbon Dioxide
Water Fog
Foam

Special Hazards Arising From The Substance Or Mixture: Dried residue can thermally decompose, giving off irritating and possibly toxic fumes.

Special Protective Equipment And Precautions For Firefighters: Avoid breathing fire vapor.
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.
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 liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust) or pillows, pads, and absorbing berms.
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.
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.
Store in a well-ventilated place.
Avoid storage in direct sunlight.

Incompatible Materials: Strong acids and oxidizing materials.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

<u>Component(s)</u>	<u>CAS No.</u>	<u>PEL</u>	<u>OSHA</u>	<u>NIOSH</u>	<u>ACGIH</u>
			<u>Ceiling</u>	<u>REL</u>	<u>TLV</u>
				<u>Ceiling</u>	<u>Ceiling</u>
Sodium Hydroxide	1310-73-2	2mg/m ³	2mg/m ³	N/A	2mg/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 glasses or 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: Brown

Odor: Ammonia

pH: 13

Melting/Freezing Point: No data available.

Initial Boiling Point and Boiling Range: No data available.

Flash Point: No data available.

Evaporation Rate: No data available.

Flammability (Solid, Gas): No data available.

Upper/Lower Flammability or Explosive Limits: No data available.

Vapor Pressure (Mm Hg): No data available.

Vapor Density: No data available.

Relative Density: 10.43 lbs/gal

Specific Gravity: 1.25

Solubility in Water: No data available.

Partition Coefficient (N-Octanol/Water): No data available.

Auto Ignition Temperature: No data available.

Decomposition Temperature: No data available.

Viscosity: No data available.

Volatiles (% By Weight): No data available.

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: Heat, flames, ignition sources, and incompatibles.

Incompatible Materials: Strong acids and strong oxidizers.

Hazardous Decomposition Products: None under normal conditions.

SECTION 11 - TOXICOLOGICAL INFORMATION

Routes of Entry:	Eyes, inhalation, dermal, ingestion.
Acute Toxicity:	
Oral Toxicity (LD ₅₀)-	>11,078 mg/kg (Rat)
Dermal Toxicity (LD ₅₀)-	>8,310 mg/kg (Rabbit)
Inhalation Toxicity (LC ₅₀)-	>9,845 mg/l (Rabbit)
Primary Eye Irritation:	No data available.
Primary Skin Irritation:	No data available.
Sensitization:	No data available.
Carcinogenicity:	
IARC-	No ingredients listed.
ACGIH-	No ingredients listed.
NTP-	No ingredients listed.
OSHA-	No ingredients listed.
Reproductive Toxicity:	No data available.
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 (LC ₅₀)-	Rainbow Trout (Onchorhynchus mykiss): >95 ppm (96 h)
Toxicity to Daphnia and Other Aquatic Invertebrates (EC ₅₀)-	Water Flea (daphnia magna): >100 ppm (48 h)
Persistence and Degradability:	No data available.
Bioaccumulation Potential:	No data available.
Mobility in Soil:	Completely soluble in water.
Results of PBT and vPvB Assessment:	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
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. 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: 3266
 Class: 8
 Packing Group: II
 Proper Shipping Name: Corrosive liquid, basic, inorganic, (Sodium Hydroxide)
 Marine Pollutant: No



IMDG

UN Number: 3266
 Class: 8
 Packing Group: II
 EMS-No.: F-A, S-B
 Proper Shipping Name: CORROSIVE LIQUID, BASIC, INORGANIC, (SODIUM HYDROXIDE)



IATA

UN Number: 3266
 Class: 8
 Packing Group: II
 Proper Shipping Name: CORROSIVE LIQUID, BASIC, INORGANIC, (SODIUM HYDROXIDE)



Limited Quantity: 1L

Excepted Quantity: (E2) Inner Package: 30g/30mL; Outer Package: 500mg/500mL

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	☢	Radioactive
				☠	Reacts violently or explosively with water
				☠ OX	Reacts violently or explosively with water and oxidizing

HMIS III

3	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		r		s	
t		u		w		y		z		Additional Information			

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