

## MATERIAL SAFETY DATA SHEET

### Section 1. Product And Company Identification

**Product Name:** MetriClean®2  
**Product Use:** Low foaming detergent

**Manufacturer:** METREX® RESEARCH  
1717 W. Collins Ave.  
Orange, CA 92867  
U.S.A.

**Information Phone Number:** 1-800-841-1428 (Customer Service)

**Chemical Emergency Phone Number (Chemical Spills, Leaks, Fire, Exposure or Accident only):**  
CHEMTREC 1-800-424-9300 (in the US) 1-703-527-3887 (Outside the US)

**SDS Date Of Preparation/Revision:** 3/3/16

### Section 2. Hazards Identification

**GHS / HAZCOM 2012 Classification:**

Skin Damage Category 1B  
Eye Damage Category 1

Label Elements

**Danger!**



Hazard Phrases

Causes severe skin burns and eye damage.

Prevention:

Do not breathe mists.

Wash thoroughly after handling.

Wear protective gloves, protective clothing, eye protection and face protection.

Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with soap and water.

Wash contaminated clothing before reuse.

Immediately call a POISON CENTER.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Immediately call a POISON CENTER.



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.

**Storage and Disposal**

Store locked up.

Dispose of contents and container in accordance with local and national regulations.

**Section 3. Composition/Information On Ingredients**

Component	CAS No.	Amount
Water	7732-18-5	70-90%
Potassium Hydroxide	1310-58-3	1-5%
Acrylic Acid Polymer Sodium Salt	Proprietary	1-5%
Triethanolamine	102-71-6	1-5%

**Section 4. First Aid Measures**

**Eye Contact:** Hold eye open and rinse slowly and gently with water for 20-30 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Get immediate medical attention.

**Skin Contact:** Immediately remove contaminated clothing. Flush all affected and exposed areas with plenty of water for at least 15-20 minutes. If skin irritation develops and persists, seek medical attention. Launder clothing before reuse. Discard items that cannot be thoroughly decontaminated, like leather shoes and belts.

**Inhalation:** Move to fresh air if effects occur and seek medical attention if effects persist. If not breathing or breathing is difficult, give oxygen or artificial respiration. Get immediate medical attention.

**Ingestion:** If swallowed, get immediate medical advice by calling a Poison Control Center or hospital emergency room. If advice is not available, take victim and product container to the nearest emergency treatment center or hospital. Do NOT induce vomiting. If the victim is alert, rinse their mouth with water. Do not attempt to give anything by mouth to an unconscious person.

**Most important symptoms and effects, acute and delayed:** Causes skin burns and eye damage. Harmful or fatal if swallowed. Causes burns to the mouth, throat and intestinal tract. Inhalation of mists or vapors may cause severe irritation of the eyes, nose and throat. High concentrations may cause lung damage.

**Indication of immediate medical attention and special treatment, if needed:** Immediate medical attention is required for all routes of exposures.

**Section 5. Fire Fighting Measures**

**Suitable (and Unsuitable) Extinguishing Media:** Use any media that is suitable for the surrounding fire. Cool fire exposed containers with water.

**Specific Hazards Arising from the Chemical:** May react with chemically reactive metals such as aluminum, zinc or magnesium to release hydrogen gas, which is flammable and explosive.



**Special Protective Equipment and Precautions for Fire-fighters:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

### Section 6: Accidental Release Measures

**Personal precautions, Protective equipment, and Emergency procedures:** Wear appropriate protective clothing and equipment.

**Methods and Materials for Containment and Cleaning up:** Neutralize spill with a dilute weak acid, such as acetic acid or use alkali spill kit. Collect material with an inert absorbent material and place in appropriate, labeled container for disposal.

### Section 7. Handling and Storage

**Precautions for Safe Handling:** Do not get in eyes, on skin or on clothing. Wear appropriate protective clothing when handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Immediately remove and wash contaminated clothing before reuse. Use in accordance with label directions.

**Conditions for Safe Storage, Including any Incompatibilities:** Store in a cool area.

Empty containers retain product residues and may be hazardous. Do not flame cut, drill, weld, etc. on or near empty containers, even empty.

### Section 8. Exposure Controls / Personal Protection

#### Exposure Limits

Chemical	Exposure Limit
Potassium Hydroxide	2 mg/m3 Ceiling ACGIH TLV
Acrylic Acid Polymer Sodium Salt	None Established
Triethanolamine	5 mg/m3 TWA ACGIH TLV

**Appropriate Engineering Controls:** For operations where the exposure limits may be exceeded, mechanical ventilation such as local exhaust may be needed to minimize exposure.

**Respiratory Protection:** None under normal use conditions with adequate ventilation. For operations where the occupational exposure limits are exceeded, a NIOSH approved respirator with an organic vapor/dust/mist cartridges or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

**Hand protection:** Protective gloves such as nitrile are recommended.

**Eye Protection:** Splash proof goggles and face shield recommended.



**Skin Protection:** Wear protective clothing if needed to prevent skin contact. Contaminated clothing must be immediately removed and laundered before re-use.

**Hygiene measures:** Suitable eye wash and washing facilities should be available in the work area.

### Section 9. Physical and Chemical Properties

<b>Appearance:</b>	Clear blue-green liquid	<b>Odor:</b>	Fresh, clean scent
<b>Odor Threshold:</b>	Not available	<b>pH:</b>	13.0 -14.0
<b>Melting/Freezing Point:</b>	Not available	<b>Boiling Point/Range:</b>	Not determined
<b>Flash Point:</b>	Not flammable	<b>Evaporation Rate:</b>	Not available
<b>Flammability: (Solid, Gas)</b>	Not applicable	<b>Flammability Limits:</b>	Not applicable
<b>Vapor Pressure:</b>	Same as water	<b>Vapor Density:</b>	Not available
<b>Relative Density:</b>	>1.025	<b>Solubilities:</b>	Completely soluble in water
<b>Partition Coefficient: (N-Octanol/Water)</b>	Not available	<b>Autoignition Temperature:</b>	Not flammable
<b>Decomposition Temperature:</b>	Not available	<b>Viscosity:</b>	Not available

### Section 10. Stability and Reactivity

**Reactivity:** None known.

**Chemical Stability:** Stable.

**Possibility of Hazardous Reactions:** May react with chemically reactive metals such as aluminum, zinc or magnesium to release hydrogen gas, which is flammable and explosive.

**Conditions to avoid:** Excessive heat.

**Incompatible Materials:** Strong oxidizing agents, acids reactive metals.

**Hazardous decomposition products:** Thermal decomposition will produce carbon monoxide, carbon dioxide, nitrogen oxides, amines.

### Section 11. Toxicological Information

#### Potential Health Effects:

**Inhalation:** Vapors and mists may cause severe irritation of the eyes, nose and throat. High concentrations may cause lung damage.

**Skin Contact:** Corrosive. May cause severe irritation or burns.

**Eye Contact:** Corrosive. May cause severe irritation with burns and permanent eye damage.

**Ingestion:** Harmful or fatal if swallowed. Causes burns to the mouth, throat and intestinal tract.

**Chronic Hazards:** Prolonged overexposure to dilute solutions may cause dermatitis.



**Carcinogen:** None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH, or OSHA.

**Acute Toxicity Values**

Potassium Hydroxide: LD50 Oral Rat 273 mg/kg.  
Acrylic Acid Polymer Sodium Salt: No data available  
Triethanolamine: LD50 Oral Rat >4000 mg/kg; LD50 Dermal Rabbit >2000 mg/kg

**Section 12. Ecological Information**

This product is not classified as aquatically toxic based on the GHS criteria for aquatic toxicity.

**Toxicity:**

Potassium Hydroxide: LC50 mosquito fish 80 mg/L/96  
Acrylic Acid Polymer Sodium Salt: EC50 ceriodaphnia 162 mg/L/48 hr  
Triethanolamine: LC50 fathead minnow 1800-11,800 mg/L/96 hr; LC50 daphnia magna 739-2038 mg/L/24 hr; ErC50 algae 216-750 mg/L/72 hr

**Persistence and degradability:** Triethanolamine is readily biodegradable in screening tests. Acrylic Acid Polymer Sodium Salt is not readily biodegradable. Biodegradation is not applicable to inorganic substances such as potassium hydroxide.

**Bioaccumulative Potential:** Triethanolamine has a low potential to bioaccumulate.

**Mobility in Soil:** Triethanolamine is expected to have very high mobility in soil.

**Other Adverse Effects:** Releases of large amounts to waterways will affect the pH of the water and may have an adverse effect on aquatic organisms.

**Section 13. Disposal Considerations**

**Solution Disposal:** Unused product or wastes resulting from the use of this product may be disposed of according to applicable Federal, State, or local procedures. Unused product would be classified as a RCRA hazardous waste, characteristic corrosivity.

**Container Disposal:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. If recycling is not available, discard in accordance with hospital policy.

**Section 14. Transport Information**

	UN Number	UN Proper Shipping Name	Hazard Class(s)	Packing Group	Environmental Hazards
US DOT	UN1814	Potassium Hydroxide Solution	8	PG II	None
EU ADR/RID	UN1814	Potassium Hydroxide Solution	8	PG II	None
IMDG	UN1814	Potassium Hydroxide Solution	8	PG II	None
IATA/ICAO	UN1814	Potassium Hydroxide Solution	8	PG II	None



## Section 15. Regulatory Information

### U.S. Federal Regulations:

**EPA SARA 311/312 Hazard Classification:** Acute Health

**EPA SARA 313:** This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

**Protection Of Stratospheric Ozone:** This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

**CERCLA SECTION 103:** This product has a reportable quantity (RQ) of 20,000 lbs based on the RQ for potassium hydroxide of 1000 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

### Canadian Regulations

**National Pollutant Release Inventory (NPRI):** This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements NPRI: None

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations

### International Inventories

**US EPA TSCA Inventory:** All of the components of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or exempt.

**Canadian Environmental Protection Act:** All of the components in this product are listed on the Domestic Substances List (DSL) or exempt.

**Australia:** All of the components in this product are listed on the Australian Inventory of Chemical Substances (AICS) or exempt.

**China:** All of the components in this product are listed on the Inventory of Existing Chemical Substances in China (IECSC) or exempt.

**New Zealand:** All of the components in this product are listed on the New Zealand Inventory of Chemicals (NZIoC) or exempt.

## Section 16. Other Information

NFPA Rating: Fire: 1      Health: 3      Instability: 0

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