



## MATERIAL SAFETY DATA SHEET

### 1. Product And Company Identification

**Product Name:** MetriClean® 2

**Manufacturer:** METREX® RESEARCH  
28210 Wick Rd  
Romulus, MI 48174  
U.S.A.

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

**Imported By:** VDI Health Care  
250 First Gulf Boulevard  
Brampton ON L6W4T5  
Canada  
(905) 796-3365  
Fax: (905) 796-7818

**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)  
Canutec: 1 (613) 996-6666 (24 hours)

**MSDS Date Of Preparation/Revision:** 7/8/2012

**Product Use:** Detergent.

### 2. Hazards Identification

Clear blue-green liquid with a fresh, clean scent.

### EMERGENCY OVERVIEW

Corrosive. 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.

### 3. Composition/Information On Ingredients

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

### 4. First Aid Measures

**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.



**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.

**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.

**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.

## 5. Fire Fighting Measures

**Extinguishing Media:** This product is not combustible. Use any media that is suitable for the surrounding fire. Cool fire exposed containers with water.

**Special Fire Fighting Procedures:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

**Unusual Fire Hazards:** May react with chemically reactive metals such as aluminum, zinc or magnesium to release hydrogen gas, which is flammable and explosive.

**Hazardous Combustion Products:** Burning after the water has evaporated may produce carbon monoxide, carbon dioxide, nitrogen oxides.

## 6: Accidental Release Measures

Stop leak if it is safe to do so and move containers from the spill area. Wear appropriate protective clothing and equipment (See Section 8). 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. Refer to Section 13 for disposal advice.

## 7. Handling and Storage

Do not get in eyes, on skin or on clothing. Wear appropriate protective clothing when handling (see Section 8). 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.

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.

## 8. Exposure Controls / Personal Protection

### Exposure Limits

Chemical	Exposure Limit
Potassium Hydroxide	2 mg/m <sup>3</sup> Ceiling ACGIH TLV
Acrylic Acid Polymer Sodium Salt	None Established
Triethanolamine	5 mg/m <sup>3</sup> TWA ACGIH TLV

**Ventilation:** 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/MSHA 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.

**Gloves:** Impervious gloves such as nitrile.

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

**Other Protective Equipment/Clothing:** Wear protective clothing if needed to prevent skin contact. Suitable washing and eye flushing facilities should be available in the work area. Contaminated clothing must be immediately removed and laundered before re-use.

## 9. Physical and Chemical Properties

**Appearance And Odor:** Clear blue-green liquid with a fresh, clean scent.

Boiling Point:	Not Determined	Specific Gravity:	>1.025
Solubility in Water:	Complete	pH:	13.0 -14.0
Vapor Pressure:	Same as water	Vapor Density:	Same as water
Percent Volatile:	>70%	Melting/Freezing Point:	Not Determined
Coefficient of Water/Oil Distribution:	Not Determined		
Flash Point:	None	Flammable Limits:	None

## 10. Stability and Reactivity

**Stability:** Stable

**Conditions To Avoid:** Excessive heat.

**Incompatibility:** Strong oxidizing agents, acids reactive metals.

**Hazardous Decomposition Products:** Thermal decomposition will produce carbon monoxide, carbon dioxide, nitrogen oxides, amines. May react with chemically reactive metals such as aluminum, zinc or magnesium to release hydrogen gas, which is flammable and explosive.

**Hazardous Polymerization:** Will not occur.

## 11. Toxicological Information

### Potential Health Effects:

#### Acute Hazards:

**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.

**Medical Conditions Aggravated By Exposure:** May aggravate existing eye and skin conditions.

**Carcinogen:** None of the components present at 0.1% or greater 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

## 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 hr

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



### 13. Disposal Considerations

**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:** Do not reuse this container. Wrap empty container and place in trash.

### 14. Transport Information

#### U.S. DOT Hazard Classification

Proper Shipping Name: Potassium Hydroxide Solution

Technical Name: N/A

UN Number: UN1814

Hazard Class/Packing Group: 8, II

Labels Required: Corrosive

DOT MARINE POLLUTANTS: This product does not contain Marine Pollutants as defined in 49 CFR 171.8.

#### Canada TDG

Proper Shipping Name: Potassium Hydroxide Solution

UN Number: UN1814

Hazard Class: 8

Packing Group: II

Labels Required: Corrosive

#### IMDG Code Shipping Classification

Proper Shipping Name: Potassium Hydroxide Solution

UN Number: UN1814

Hazard Class: 8

Packing Group: II

Labels Required: Corrosive

Placards Required: Class 8

Not classified as a marine pollutant

#### ICAO Air Transport Classification

Proper Shipping Name: Potassium Hydroxide Solution

ID Number: UN1814

Hazard Class: 8

Packing Group: II

Labels Required: Class 8

### 15. Regulatory Information

#### US 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 10,000 lbs based on the RQ for potassium hydroxide of 100 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

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

**Canadian Regulations**

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

**CEPA Chemical Inventory:** All of the components of this material are listed on the DSL or exempt.

**WHMIS Classification:** Class D-1-B, Class E

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*

<b>16. Other Information</b>
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NFPA Rating: Fire: 0                  Health: 3                  Instability: 0

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