

## Material Safety Data Sheet

### SECTION 1 – CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product Name:** VX Filter Clean

**Chemical Family:** Alkaline Cleaner

**Manufacturer's Name:** Siemens Industry, Inc. - Water Technologies Business Unit

**Address:** 2650 Tallevast Road, Sarasota, FL 34243

**Product/Technical Information Phone Number:** 941.355.2971

**Medical/Handling Emergency Phone Number:** CHEMTREC 1.800.424.9300  
24 hours a day

**Transportation Emergency Phone Number:** CHEMTREC 1.800.424.9300  
24 hours a day

**Issue Date:** July 2006

**Revision Number / Date:** Rev 1 April 2011

### SECTION 2 – COMPOSITION INFORMATION

<u>Chemical Name</u>	<u>Percent by Weight</u>	<u>CAS#</u>
Sodium Hydroxide	5 - 10	1310-73-2
Potassium Hydroxide	5 - 10	1310-58-3
Proprietary Ingredients	Confidential	Confidential
Water	Confidential	7732-18-5

### SECTION 3 – HAZARDS IDENTIFICATION

**Appearance & Odor:** Light amber, odorless liquid.

**Emergency Overview:** Corrosive liquid. Causes severe irritation and burns to the skin, eyes, and respiratory tract. Spills of this product will make the floor slippery.

**Primary Route(s) of Exposure:** Skin and eye contact, inhalation, and ingestion.

**Inhalation – Acute Effects:** Avoid breathing vapors or mists. Prolonged or excessive inhalation may cause respiratory tract irritation or burns of the mucous membranes.

**Skin Contact – Acute Effects:** Causes irritation, possible burns on prolonged contact. A single, prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amounts.

**Eye Contact – Acute Effects:** Risk of serious damage to eyes even with brief contact. Corrosive to the eyes and may cause severe damage including blindness.

**Ingestion – Acute Effects:** This product will cause severe irritation and possible burns to mucous membranes of the mouth.

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### SECTION 4 – FIRST AID MEASURES

**Inhalation First Aid:** Although this product is not known to cause respiratory problems, remove affected person to fresh air. Give artificial respiration ONLY if breathing has stopped and give CPR ONLY if there is no pulse. Obtain medical attention if cough or other symptoms develop.

**Skin Contact First Aid:** Immediately shower for 15-20 minutes with flowing water and remove clothing while showering. Remove goggles last to keep material from washing into eyes. Obtain medical attention if irritation develops or persists.

**Eye Contact First Aid:** Immediately irrigate eyes with flowing water continuously for 15-20 minutes while holding eyes open. Contacts should be removed before or during flushing. **Obtain medical attention immediately.**

**Ingestion First Aid:** If victim is alert and not convulsing rinse mouth with water and give large amounts of water to drink. Do not induce vomiting. If spontaneous vomiting occurs, have affected person lean forward with head down to avoid breathing in of vomitus. Rinse mouth again and give more water to drink. **Obtain medical attention immediately.**

**Medical Conditions Aggravated:** Individuals with preexisting diseases of the lungs may have increased susceptibility.

**Note to Physician:** Treat symptomatically.

### SECTION 5 – FIRE FIGHTING MEASURES

**Flash Point/Method:** Not applicable.

**Auto Ignition Temperature:** Not applicable.

**Upper/Lower Explosion Limits:** Not applicable.

**Extinguishing Media:** Water, carbon dioxide, foam, or dry powder.

**Fire Fighting Procedures:** Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. Containers can build up pressure if exposed to heat (fire). Dike and collect water used to fight the fire. Contaminated extinguishing water must be disposed of in accordance with applicable regulations.

**Fire & Explosion Hazards:** Prolonged contact with metals such as aluminum, tin, lead, and zinc may generate flammable hydrogen gas.

**Hazardous Products of Decomposition and/or Combustion:** In case of a fire, oxides of carbon, nitrogen, hydrocarbons, fumes, and smoke may be produced.

**NFPA Ratings:** HEALTH - 3 FLAMMABILITY - 0 REACTIVITY - 0

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### SECTION 6 – ACCIDENTAL RELEASE MEASURES

Wear appropriate personal protective equipment. Stop the source of the leak or release if it is safe to do so. Clean up releases as soon as possible, observing precautions in (Section 8). Contain spilled material and absorb spills with inert material to prevent further contamination of soil, surface water, or groundwater.

DO NOT DUMP ON THE GROUND OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State, Local and Provincial laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waster generator.

### SECTION 7 – HANDLING AND STORAGE

**Handling:** Follow all MSDS /label precautions even after container is emptied because they may contain product residues. Avoid contact with skin and eyes. Avoid breathing mists. Wash hand thoroughly after handling.

**Storage:** Store in secure area. Provide appropriate ventilation. Avoid contact with zinc, aluminum, and copper. Store away from acids. This product is slippery when spilled. Keep container tightly closed. Avoid extreme temperatures.

**Storage Temperature:** Store this product at temperatures between 45° F and 100° F.

### SECTION 8 –PERSONAL PROTECTION/ EXPOSURE CONTROL

**Respiratory Protection:** When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

**Skin Protection:** Wear protective gloves to minimize skin contamination. Selection of specific items such as gloves, boots, apron, or full-body suit will depend on operation.

**Eye Protection:** Chemical goggles. Wear chemical goggles and face shield if splashing is likely.

**Other Protection:** Safety showers, with quick opening valves that stay open, and eye wash fountains or other means of washing the eyes with a gentle flow of cool to tepid tap water should be readily available in all areas where this material is handled or stored. Water should be supplied through insulated and heat-traced lines to prevent freeze-ups in cold weather.

**Exposure Limits:** Exposure limits have not been set for this product. However, for its identified components:

Sodium Hydroxide: OSHA PEL = TWA: 2 mg/m<sup>3</sup>  
NIOSH TLV =TWA: 2 mg/m<sup>3</sup> (ceiling)

Potassium Hydroxide: NIOSH TLV = 2 mg/m<sup>3</sup> (ceiling)

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### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

**Appearance & Odor:** Light amber, odorless liquid.

**Boiling Point:** 212° F @ 760 mm Hg

**Evaporate Rate:** <1 (Butyl Acetate = 1)

**Specific Gravity:** 1.14 @ 25° C

**Density:** 9.50 lbs/gal

**Solubility in Water:** Complete

**pH:** 12.3 @ 1 wt%

### SECTION 10 – STABILITY AND REACTIVITY

**Stability:** Stable at ambient temperatures

**Incompatibilities:** Avoid contact with acids and oxidizing agents. Reacts violently with acid and is corrosive to aluminum and zinc.

**Polymerization:** Hazardous polymerization will not occur.

**Decomposition:** Will not occur if handled and stored properly.

**Conditions to Avoid:** Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminum, tin, lead, and zinc.

### SECTION 11 – TOXICOLOGICAL INFORMATION

**Toxicology Data:** No information available.

**Carcinogenicity/Mutagenicity:** This product may contain small amounts of nitrilotriacetic acid and/or its salts which are classified by NTP and IARC as suspect carcinogens (Class 2B) based on findings of urinary tumors in rats and mice in chronic feeding studies.

### SECTION 12 – ECOLOGICAL INFORMATION

No information available.

### SECTION 13 – DISPOSAL CONSIDERATIONS

Avoid disposal into wastewater treatment facilities. Treat or dispose of waste material in accordance with all local, state, provincial, and federal regulations.

NOTE: State and local regulations may be more stringent than federal regulations.

**Empty Containers:** Unclean empty containers should be disposed of in the same manner as the contents.

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### SECTION 14 – TRANSPORTATION INFORMATION

**DOT Shipping Name:**

Corrosive liquid, basic, inorganic, n.o.s., (sodium hydroxide and potassium hydroxide), 8, UN3266, III

### SECTION 15 – REGULATORY INFORMATION

**OSHA Hazard Communication:** Health Hazard

**CERCLA Hazardous Substance:** Yes

Sodium Hydroxide

RQ: 1000 lbs

Potassium Hydroxide

RQ: 1000 lbs

**SARA Hazard Categories:**

Acute Health Hazard: yes

Chronic Health Hazard: no

Fire Hazard: no

Pressure Release Hazard: no

Reactivity Hazard: no

**TSCA Inventory:** All components of the product are listed on the Inventory of Existing Chemical Substances List and under the Toxic Substance Control Act.

**California Proposition 65:** Nitritotriacetic acid, a possible trace component of this product, is known to the State of California to cause cancer.

**WHMIS Hazard Symbols:**

Class D-2(b) - Materials Causing Other Toxic Effects, Class E - Corrosive Materials

**Canadian Disclosure List:**

Sodium Hydroxide - 1310-73-2

Potassium Hydroxide - 1310-58-3

**Canadian Domestic Substances List (DSL):** All components of this product are listed.

### SECTION 16 – OTHER INFORMATION

**Disclaimer:** The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the user thereof. It is the buyer's responsibility to ensure that its activities comply with federal, state, provincial, and local laws.

**Revision Indicator:** Legal Entity name change 04/01/11