



# SAFETY DATA SHEET

## SECTION 1 – IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

- 1.1 Product Identifier: **KOCHKLEEN® ADDITIVE Z** Version: 5  
Date of approval: 8 December 2014  
Trade Names: **KOCHKLEEN® ADDITIVE Z**
- 1.2 General Use: Cleaning Agent  
Product Description: Colorless liquid with slight odor
- 1.3 Manufacturer Koch Membrane Systems, Inc.  
850 Main Street  
Wilmington, MA  
01887 USA
- 1.4 Telephone 8 – 5 (M-F, EST): +1 (978) 657-4250  
Emergency Telephone: CHEMTREC +1 (800) 424-9300 (inside USA)  
+1 (703) 527-3887 (outside USA)

For technical assistance regarding this product, please contact your local Koch Membrane Systems representative.

## SECTION 2 – HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:  
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR §1910.1200).
- 2.2 Emergency overview:  
Colorless liquid with slight odor. Irritating to skin. May be severely irritating to eyes. Combustible
- 2.3 Most important symptoms and effects, both acute and delayed:  
EYES: MODERATELY TO SEVERELY IRRITATING. Direct contact may cause irritation, redness, tearing and blurred vision. This information is based on findings from related or similar materials.  
SKIN: MODERATELY IRRITATING. Absorption from prolonged or repeated skin contact may cause systemic toxicity. This information is based on findings from related or similar materials.  
INGESTION: SLIGHTLY TOXIC. Ingestion of large amounts may cause gastrointestinal disturbances. Symptoms may include salivation, pain, nausea, vomiting and diarrhea. This evaluation is based on findings from related or similar materials.  
INHALATION: Under normal conditions, inhalation is not expected to be a problem. However, if exposed to vapors, fumes, mists the following may occur: Irritation to nose, throat and respiratory tract.

## SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

CAS #	Chemical Name	Percentage (wt/wt)
34398-01-1	C11 Alcohol ethoxylate	100

Values do not reflect absolute minimums and maximums; these values are typical which may vary from time to time.

## SECTION 4 – FIRST AID MEASURES

- 4.1 Description of first aid measures:  
EYES: Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. GET IMMEDIATE MEDICAL ATTENTION.  
SKIN: Immediately wash skin with plenty of water, for at least 15 minutes, while removing contaminated clothing and shoes. GET IMMEDIATE MEDICAL ATTENTION.



## SAFETY DATA SHEET

Place contaminated clothing in closed container for storage until laundered or discarded. If clothing is to be laundered, inform person performing operation of contaminant's hazardous properties. Discard contaminated leather goods.

**INGESTION:** Do not induce vomiting unless directed by a physician. Never give anything by mouth to an unconscious person. **GET IMMEDIATE MEDICAL ATTENTION.** Vomiting may occur spontaneously. To prevent aspiration of swallowed product, lay victim on side. Gastric lavage should be performed only qualified medical personnel.

Keep affected person warm and at rest.

**INHALATION:** Remove to fresh air. Seek medical attention if necessary. If not breathing, institute rescue breathing. If breathing is difficult, ensure airway is clear and give oxygen.

Keep affected person warm and at rest. Get medical attention.

- 4.2 Indication of any immediate medical attention and special treatment needed: Gastric lavage may be indicated if ingested. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

### SECTION 5 – FIREFIGHTING MEASURES

Flammable properties: combustible

- 5.1 Extinguishing media Use water spray, dry chemical, alcohol foam, or all-purpose AFFF to extinguish fire.  
Unsuitable: Water jet (frothing may occur).
- 5.2 Special hazards arising from the substance or mixture Combustion may product oxides of carbon, and unidentified organic compounds
- 5.3 Advice for firefighters Evacuate area and fight fire from a safe distance.  
If leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak.  
Use water spray to cool adjacent structures and to protect personnel. Shut off source of flow if possible. Stay away from storage tank ends. Withdraw immediately in case of rising sound from venting safety device or any discoloration of storage tank due to fire.  
Fire fighters must wear MSHA/NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.

### SECTION 6 – ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind.
- 6.2 Environmental precautions If product is released to the environment, take immediate steps to stop and contain release. Caution should be exercised regarding personnel safety and exposure to the released product. Notify local, provincial and/or federal authorities, if required.
- 6.3 Methods and material for containment and cleaning up Keep ignition sources out of area and shut off all ignition sources. Absorb spill with inert material (e.g. dry sand or earth) then place in a chemical waste container.  
Large Spills: Dike far ahead of liquid spill for later disposal.  
After removal, flush contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.
- 6.4 Reference to other sections Use proper protective equipment indicated in Section 8.



# SAFETY DATA SHEET

## SECTION 7 – HANDLING AND STORAGE

- 7.1 Precautions for safe handling
- Ground lines and equipment used during transfer to reduce the possibility of static spark-initiated fire or explosion. Use non-sparking tools. Do not cut, grind, drill, weld in the vicinity of the product or reuse containers unless adequate precautions are taken against these hazards.
- Do not use with aluminum, copper or copper alloys.
- Use of nitrogen blanketing will minimize the potential for ethoxylate oxidation. Overheating of an ethoxylate stored under air should be avoided. When an ethoxylate is vigorously mixed in the presence of air or oxygen at temperatures above 125 °F (50 °C), it can undergo exothermic oxidative degradation. This condition may result in self-heating and autoignition.
- Do not eat, drink or smoke in areas of use or storage.
- 7.2 Conditions for safe storage, including any incompatibilities
- Store in tightly closed containers in a cool, dry, isolated, well-ventilated area away from heat, sources of ignition and incompatibles. Avoid contact with strong oxidizers.
- Empty containers may contain product residue. Do not reuse without adequate precautions.
- Ethylene oxide may collect in container head space. Although concentrations are expected to remain below permissible exposure limits, access and work with open containers and tanks with adequate ventilation.

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters:

#### 8.1.1 Occupational exposure limits:

Chemical	Limit value – 8 hours		Limit value – Short term	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
C11 alcohol ethoxylate:				
OSHA	Not established	Not established	Not established	Not established
ACGIH	Not established	Not established	Not established	Not established

#### 8.1.2 Currently recommended monitoring procedures:

Not determined

#### 8.1.3 Exposure guidelines for air contaminants, if any:

Not determined

#### 8.1.4 DNELs and PNECs for exposure scenarios:

Not determined

#### 8.1.5 Control banding for risk management:

Not determined

### 8.2 Exposure controls:

- Engineering controls: General or local exhaust ventilation and other forms of engineering controls are the preferred means for controlling exposures.
- Respiratory protection: Under normal conditions of use, ventilation and engineering controls are sufficient. If irritation is evident, and/or a non-routine or emergency situation, NIOSH/MSHA approved breathing equipment may be required.



## SAFETY DATA SHEET

Skin & body protection:	Avoid skin contact with this material. If skin contact is anticipated, protective clothing, including impervious gloves, should be worn. Suggested gloves for hand protection include nitrile or neoprene. Use good personal hygiene. Provide safety showers at any location where skin contact can occur.
Eye protection:	Wear approved chemical safety goggles to prevent eye contact. Have eye wash stations readily available where eye contact can occur.
Thermal hazards:	None
Environmental exposure controls:	None

### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties:

Appearance:	Colorless liquid
Odor:	Slight
Odor threshold:	ND
pH:	6.0-7.5 (1% aqueous)
Melting/freezing point	39 °F (4 °C)
Initial boiling point & boiling range:	ND
Evaporation rate:	ND
Flash point:	> 302°F (> 150°C) Pensky-Martens closed cup
Flammability (solid, gas):	NA
Upper flammability or explosive limits:	ND
Lower flammability or explosive limits:	ND
Vapour pressure:	0.007 kPa @ 68°F (20°C)
Vapour density:	0.90-1.04
Relative density:	NA
Solubility(ies)	9.4 g/l @ 20 °C in water (complete, may form gel)
Partition coefficient:	ND
Auto-ignition temperature:	ND
Decomposition temperature:	ND
Viscosity:	18 mPa @ 100 °F (38 °C)
Explosive properties:	None
Oxidising properties:	None
Other:	
Density:	8.07 lbs/gal (0.97 g/l)
Volatile organic:	1.5% approx., EPA Method 24
Pour point:	39 °F (4 °C)

9.2 Other information:     None



## SAFETY DATA SHEET

### SECTION 10 – STABILITY AND REACTIVITY

- 10.1 Reactivity: Stable
- 10.2 Chemicals stability: Stable under normal conditions of use.
- 10.3 Possibility of hazardous reactions: Will not occur
- 10.4 Conditions to avoid: Oxidation of alcohol ethoxylates may occur under certain conditions. Overheating of an ethoxylate stored under air should be avoided. When an ethoxylate is vigorously mixed with air or oxygen at temperatures above 125 °F (50 °C), it can undergo exothermic oxidative degradation. This condition may result in self-heating and autoignition.
- 10.5 Incompatible materials: Incompatible with strong oxidizing agents. See precautions under Section 7.
- 10.6 Hazardous decomposition products: Combustion may produce CO<sub>x</sub> and unidentified organic compounds.

### SECTION 11 – TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

<u>Chemical</u>	<u>Oral LD<sub>50</sub></u>	<u>Dermal LD<sub>50</sub></u>	<u>Inhalation LC<sub>50</sub></u>
C11 alcohol ethoxylate	>1400 mg/kg	> 2000 mg/kg	No data

#### Category

#### Available data

- Acute toxicity: May cause harm by ingestion.
- Skin/eye irritation: Skin irritant. Moderate to severe eye irritation
- Corrosivity: Not corrosive
- Respiratory or skin sensitisation: None known
- Germ cell mutagenicity: None known
- Carcinogenicity: The product does not contain any chemicals that are listed by U.S. OSHA, NTP, IARC or ACGIH as “probable” or “suspected” human carcinogens at or above 0.1%.  
Traces of ethylene oxide may be present in this product and could accumulate in the head space of storage and transport vessels. These trace amounts are not expected to result in either acute or long term hazard when this product is handled using proper personal protection. Ethylene oxide is a cancer hazard and a reproductive hazard. Repeated exposure may be harmful.
- Reproductive toxicity: None known
- Specific target organ effect – single exposure (STOT-SE): None known
- Specific target organ effect – repeated exposure (STOT-RE): None known
- Aspiration hazard: None known

ROUTE OF ENTRY: Inhalation. Ingestion. Skin and eye contact.

### SECTION 12 – ECOLOGICAL INFORMATION

- 12.1 Toxicity: Toxic to aquatic organisms.
- 12.2 Persistence and degradability: Not determined
- 12.3 Bioaccumulative potential: Not determined



## SAFETY DATA SHEET

12.4 Mobility in soil:	Not determined
12.5 Results of PBT and vPvB assessment:	Does not meet criteria
12.6 Other adverse effects:	None

### SECTION 13 – DISPOSAL CONSIDERATIONS

Waste treatment methods: This product, as supplied, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261). Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product is a hazardous waste subject to RCRA.

The transportation, storage, treatment and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 279. Disposal can occur only in properly permitted facilities. Check state and local regulations for any additional requirements as these may be more restrictive than federal laws and regulations. Chemical additions, processing or otherwise altering this product may make the waste management information present in this SDS incomplete, inaccurate or otherwise inappropriate. Disposal of the product must be conducted in compliance with all federal, state and local regulation.

In Canada, waste should be disposed of according to federal, state, provincial and local regulations.

### SECTION 14 – TRANSPORT INFORMATION

**US DOT** Not regulated  
Proper Shipping Name  
Class  
UN Number  
Packing Group  
Environmental hazard

**IMDG** Not regulated  
Proper Shipping Name  
Class  
UN Number  
Packing Group  
Flashpoint

**ICAO/IATA** Not regulated  
Proper Shipping Name  
Class  
UN Number  
Packing Group

Special precautions for user: None

### SECTION 15 – REGULATORY INFORMATION

Safety health and environmental regulations:

a. Federal regulations:

All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

This product, as supplied, may contain ethylene oxide, a hazardous substance as per 40 CFR 302.4. The reportable quantity for ethylene oxide is 10 pound(s). Any release of this product that results in a release of ethylene oxide equal to or exceeding the reportable quantity must be reported to the National Response Center (800-424-8802) and appropriate state and local regulatory agencies as described in 40 CFR 302.6 and 40 CFR 355.40, respectively.

This product does not contain toxic chemicals (in excess of the applicable de minimis concentration) that are subject to the annual toxic chemical release reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313 (40 CFR 372).



## SAFETY DATA SHEET

There may be specific regulations at the local, regional or site/provincial level that pertain to this product.

### SARA TITLE III Ratings

Immediate hazard: Yes      Delayed hazard: No      Fire hazards: No  
Pressure hazard: No      Reactivity hazard: No

### b. State regulations:

California Proposition 65: WARNING: This material contains ethylene oxide which is known to the state of California to cause cancer and/or birth defects or other reproductive harm.

PENNSYLVANIA: Non-hazardous ingredients present at >3%: None.

### c. International regulations

#### 1. Canada

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

WHMIS Classification: D2B

#### WHMIS Ratings:

Compressed Gas: No      Flammable/Combustible: No      Oxidizer: No      Acutely Toxic: No  
Other Toxic Effects: Yes      Bio Hazardous: No      Corrosive: No      Dangerously Reactive: No

#### 2. Globally Harmonized System (GHS) Classification and Labeling

GHS Signal Word: DANGER

GHS Pictograms: Exclamation mark, Corrosion, Environment

GHS Hazard Classes and Hazard Statements:

Acute Toxicity – Category 4	H302 – Harmful if swallowed
Skin irritant – Category 2	H315 – Causes skin irritation
Eye irritant – Category 2	H318 – Causes serious eye damage
Acute Aquatic Toxicity – Category 2	H401 – Toxic to aquatic life

GHS Precautionary Statements:

P280 – Wear protective gloves/eye protection/face protection  
P264 – Wash thoroughly after handling  
P270 – Do not eat, drink or smoke when using this product.  
P273 – Avoid release to the environment  
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P310 – Immediately call a POISON CENTER/doctor  
P302 + P352 – IF ON SKIN: Wash with plenty of water.  
P332 + P313: If irritation occurs: Get medical advice/attention  
P362 + P364 – Take off contaminated clothing and wash it before reuse.  
P301 + P312 – IF SWALLOWED: Call POISON CENTER/doctor if you do not feel well.  
P330 – Rinse mouth.  
P405 – Store locked up.  
P501 – Dispose of contents/container in accordance with local/regional/national regulations.

Note: Hazard and precautionary statement numbers are included here for reference and translation purposes only and do not need to be included on the final label.





# SAFETY DATA SHEET

## SECTION 16 – OTHER INFORMATION

SDS Status: Version 5      Current version: December 8, 2014      Replaces version: January 6, 2012  
Changes: Format; Section 11, 16

### NFPA 704 RATINGS

Health	2	Flammability	1	Reactivity	0	Special Hazards	-
--------	---	--------------	---	------------	---	-----------------	---

### HMIS® RATINGS

Health	2	Flammability	1	Reactivity	0	PPE	-
--------	---	--------------	---	------------	---	-----	---

RATING CODES†: 0=slight; 1=mild; 2=moderate; 3=severe; 4=very severe; \*=chronic hazard  
†Consult NFPA 704 and HMIS for full explanation of codes

**KEY:** DNEL = Derived No-Effect Level; IARC = International Agency for Research of Cancer; WEL = Workplace Exposure Limits; OEL = Occupational Exposure Limits; PBT = Persistent, Bioaccumulative, Toxic; PNEC = Predicted No-Effect Concentration; TWA = Time Weighted Average (8 hours); STEL = Short Term Exposure Limit (15 minutes); ppm = parts per million; NTP = National Toxicology Program; ACGIH = American Conference of Governmental Industrial Hygienists; vPvB = very Persistent, very Bioaccumulative; NFPA = National Fire Protection Association; HMIS = Hazardous Materials Information System

### DISCLAIMER

NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet. However, SDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.

For related trademark information, visit [www.kochmembrane.com](http://www.kochmembrane.com)

Completed By Koch Chemical Technology Group, LLC.  
Telephone 8 – 5 (M-F, EST): +1(978) 694-7346 or +1(978) 657-4250