



MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT & COMPANY IDENTIFICATION

TRADE NAME(S) **KOCHKLEEN® ADDITIVE Z**
 CAS NUMBER 34398-01-1
 MSDS NUMBER 7179
 PRODUCT CODE ND
 PRODUCT USE CLEANING AGENT
 SYNONYM(S) ND



MANUFACTURER / SUPPLIER Koch Membrane Systems, Inc.
 850 Main Street
 Wilmington, MA
 01887 USA

TELEPHONE NUMBERS - 24 HOUR ASSISTANCE

Canutec: 1-613-996-6666
 Chemtec: 1-800-424-9300 (inside USA)
 +1-703-527-3887 (outside USA)

TELEPHONE NUMBERS - GENERAL ASSISTANCE

Product Assistance 978-657-4250
 8 - 5, M - F, Eastern Time

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

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	Concentration*	Exposure Limits / Health Hazards
C11 ALCOHOL ETHOXYLATE	34398-01-1	100 %	ND
ETHYLENE OXIDE	75-21-8	trace	1 ppm 8-Hour TWA (OSHA) 5 ppm 15-Min STEL (OSHA) 1 ppm 8-Hour TWA (ACGIH)

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

WHMIS Classification: D2B

3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION!

HEALTH HAZARDS

MAY BE IRRITATING TO THE SKIN AND EYES

MAY BE HARMFUL IF SWALLOWED

**SEE "TOXICOLOGICAL INFORMATION" (SECTION 11) FOR MORE INFORMATION

FLAMMABILITY HAZARDS

FLAMMABLE

**SEE "FIRE FIGHTING MEASURES" (SECTION 5) FOR MORE INFORMATION

REACTIVITY HAZARDS

STABLE

**SEE "STABILITY AND REACTIVITY" (SECTION 10) FOR MORE INFORMATION

POTENTIAL HEALTH EFFECTS, 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.

POTENTIAL HEALTH EFFECTS, EYE

MODERATELY IRRITATING. Direct contact may cause irritation, redness, tearing and blurred vision.

This information is based on findings from related or similar materials.

POTENTIAL HEALTH EFFECTS, INHALATION

Under normal conditions, inhalation is not expected to be a problem. However, if exposed to vapors, fumes, or mists the following may occur: Irritation to nose, throat and respiratory tract.

POTENTIAL HEALTH EFFECTS, 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.

4 FIRST AID MEASURES

SKIN

Immediately flush skin with plenty of water, for at least 15 minutes, while removing contaminated clothing and shoes. GET IMMEDIATE MEDICAL ATTENTION.

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.

EYE

Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Do not remove contact lenses if worn. GET IMMEDIATE MEDICAL ATTENTION.

INHALATION

Remove to fresh air. 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 IMMEDIATE MEDICAL ATTENTION.

INGESTION

If swallowed, induce vomiting as directed by a local physician, hospital, or poison control center. Never give anything by mouth to an unconscious person. GET IMMEDIATE MEDICAL ATTENTION. Gastric lavage should be performed only by qualified medical personnel.

Keep affected person warm and at rest.

NOTES TO PHYSICIAN

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.

5 FIRE FIGHTING MEASURES

HAZARDOUS COMBUSTION PRODUCTS

Combustion may produce COx and unidentified organic compounds.

BASIC FIRE FIGHTING PROCEDURES

Use dry chemical, alcohol foam, all purpose AFFF or water spray to extinguish fire. 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.

Firefighters must wear MSHA/NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.

Flash Point	> 302 °F (150 °C) PENSKEY-MARTENS CLOSED CUP
Autoignition Temperature	ND
Flammability Limits in Air, Lower, % by Volume	NA
Flammability Limits in Air, Upper, % by Volume	NA

6 ACCIDENTAL RELEASE MEASURES

EMERGENCY ACTION

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind. (See Exposure Controls/Personal Protection in Section 8.)

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.

SPILL OR LEAK PROCEDURE

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. Stop leak when safe to do so.

See Exposure Controls/Personal Protection (Section 8).

7 HANDLING & STORAGE

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 eat, drink or smoke in areas of use or storage.

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.

STORAGE

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.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

General or local exhaust ventilation and other forms of engineering controls are the preferred means for controlling exposures.

EYE PROTECTION: PERSONAL PROTECTION EQUIPMENT (PPE)

Wear safety goggles. Have eye washing facilities readily available where eye contact can occur.

SKIN PROTECTION: PERSONAL PROTECTION EQUIPMENT (PPE)

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. Provide safety showers at any location where skin contact can occur.

Use good personal hygiene.

RESPIRATORY PROTECTION: PERSONAL PROTECTION EQUIPMENT (PPE)

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.

9 PHYSICAL & CHEMICAL PROPERTIES

ODOR AND APPEARANCE

CLEAR TO SLIGHTLY HAZY LIQUID WITH MILD ODOR

Boiling Point	> 572 °F (> 300 °C)
Specific Gravity	0.966 @ 77 °F (25 °C)
Melting Point	25 - 63 °F (-3.9 - 17.2 °C)
Percent Volatile	ND
Vapor Pressure	0.07 hPa @ 20°C
Bulk Density	8.07 LBS/GAL (0.97 G/L)
Solubility in Water	9.4 g/l @20°C, COMPLETE, MAY FORM GEL
Octanol/Water Partn	ND
Volatile Organic	1.5 % approx, EPA METHOD 24
Pour Point	39 °F (4 °C)
pH Value	NA
Freezing Point	ND
Viscosity	18 cps @ 100° F (38°C)
Evaporation Rate	ND
Molecular Formula	NA
Molecular Weight	MIXTURE
Chemical Family	ALCOHOL ETHOXYLATE
Odor Threshold	ND

10 STABILITY & REACTIVITY

STABILITY/INCOMPATIBILITY

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 exceeding 125° F (50° C) it can undergo exothermic oxidative degeneration. This condition may result in self-heating and autoignition.

Incompatible with strong oxidizing agents. See precautions under Handling & Storage (Section 7).

HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS

Combustion may produce COx and unidentified organic compounds.

11 TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE

Inhalation, ingestion, skin and eye contact.

LD50

LD50: Rat Oral > 2 g/kg.

LD50: Rabbit Skin > 2000 mg/kg.

TOXICOLOGICAL DATA

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.

TERATOGENICITY, MUTAGENICITY, OTHER REPRODUCTIVE EFFECTS

This product contains components which may cause adverse reproductive and/or developmental effects.

PRE-EXISTING CONDITIONS AGGRAVATED BY EXPOSURE

Pre-existing medical conditions which may be aggravated by exposure include disorders of the skin and eye.

12 ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

ND

13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

This product, as supplied, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261). Under the Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the product to determine, at the time of disposal, whether the material 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 270. 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 material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Disposal of this material must be conducted in compliance with all federal, state and local regulations.

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

14 TRANSPORT INFORMATION

BILL OF LADING - BULK (U. S. DOT)

Non-Regulated

BILL OF LADING - NON-BULK (U. S. DOT)

Non-Regulated

The above description may not cover shipping in all cases, please consult 49 CFR 172.101 for specific shipping information.

15 REGULATORY INFORMATION

FEDERAL REGULATIONS

All components of this product are listed on the TSCA Inventory.

This product, as supplied, may contain ethylene oxide, a Hazardous Substance as per 40 CFR Part 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 Part 302.6 and CFR 355.40, respectively.

Failure to report may result in substantial civil and criminal penalties. Check state and local regulations for any additional requirements as these may be more restrictive than federal laws and regulations.

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).

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

SARA TITLE III RATINGS

Immediate Hazard: X Delayed Hazard: X Fire Hazard: - Pressure Hazard: -
Reactivity Hazard: -

STATE REGULATIONS

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

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

INTERNATIONAL REGULATIONS

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

WHMIS Classification: D2B

WHMIS RATINGS

Compressed Gas	-	Flammable/Combustible	-	Oxidizer	-	Acutely Toxic	-
Other Toxic Effects	X	Bio Hazardous	-	Corrosive	-	Dangerously Reactive	-

NFPA RATINGS

Health	2	Flammability	1	Reactivity	0	Special Hazards	-
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HMIS RATINGS * - Indicates chronic health hazard

Health	2*	Flammability	1	Reactivity	0
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16 OTHER INFORMATION**DISCLAIMER**

NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, MSDS 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.

Current Revision Date 12-Nov-2009

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Completed By Koch Chemical Technology Group, LLC, call (978) 694-7346 or (978) 657-4250