



# MATERIAL SAFETY DATA SHEET

## 1 CHEMICAL PRODUCT & COMPANY IDENTIFICATION

TRADE NAME(S) **KOCHKLEEN® UC III**  
 CAS NUMBER See Below  
 MSDS NUMBER 14  
 PRODUCT CODE ND  
 PRODUCT USE CLEANING AGENT  
 SYNONYM(S) KOCHKLEEN® ULTRACLEAN III



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

### TELEPHONE NUMBERS - 24 HOUR ASSISTANCE

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

### TELEPHONE NUMBERS - GENERAL ASSISTANCE

(8-5, M-F EST) Product Assistance 978-657-4250

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
NONYLPHENOL, ETHOXYLATED	9016-45-9	< 100 %	ND
GLYCOL ETHER	NA	< 3 %	ND
ETHYLENE OXIDE	75-21-8	< 10 PPM	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 EYES

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

#### FLAMMABILITY HAZARDS

COMBUSTIBLE AT HIGH TEMPERATURES

#### REACTIVITY HAZARDS

STABLE

#### POTENTIAL HEALTH EFFECTS, SKIN

MAY BE IRRITATING.

Repeated or prolonged skin contact may cause reddening, itching and inflammation.

#### POTENTIAL HEALTH EFFECTS, EYE

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

#### POTENTIAL HEALTH EFFECTS, INHALATION

Breathing of the mists, vapors or fumes may irritate the nose, throat and lungs. This is more likely to occur with highly heated product, or unusually high concentrations with poor ventilation. Mists may also cause headache, nausea, and drowsiness.

#### POTENTIAL HEALTH EFFECTS, INGESTION

Ingestion of large amounts may cause gastrointestinal disturbances. Symptoms may include salivation, pain, nausea, vomiting and diarrhea.

### 4 FIRST AID MEASURES

#### SKIN

Immediately wash skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

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. 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.

Get medical attention.

#### INGESTION

Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

Never give anything by mouth to an unconscious person. Do not induce vomiting because of danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis.

Have victim rinse mouth thoroughly with water, then drink 8 to 10 oz. of water to dilute material in stomach. If milk is available, it may be administered AFTER the water has been given. If vomiting occurs naturally, have the victim lean forward to reduce risk of aspiration. Repeat administration of water. Quickly transport to emergency care facility.

## 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, irritating aldehydes and ketones.

### EXTINGUISHING MEDIA

Use dry chemical, alcohol foam, all purpose AFFF or carbon dioxide to extinguish fire. Water or foam may cause frothing, with further application leading to boilover.

### BASIC FIRE FIGHTING PROCEDURES

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.

### UNUSUAL FIRE & EXPLOSION HAZARDS

May produce a floating fire hazard.

Flash Point	460 °F (237.8 °C) PMCC
Autoignition Temperature	ND
Flammability Limits in Air, Lower, % by Volume	ND
Flammability Limits in Air, Upper, % by Volume	ND

## 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.

Avoid clean up procedures that may result in water pollution.

DO NOT put water directly on leak or spill area. 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.

## 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)

When working with this substance, wear appropriate protective gloves.

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

PALE YELLOW LIQUID WITH A SLIGHT ODOR

Boiling Point	ND
Specific Gravity	1.06
Melting Point	41 °F (5 °C)
Percent Volatile	ND
Vapor Pressure	< 1 mmHg at 68 °F (20° C)
Vapor Density	> 1
Bulk Density	ND
Solubility in Water	> 10 %
Octanol/Water Partn	ND
pH Value	7
Freezing Point	SEE MELTING POINT
Viscosity	110 at 100 °F (37.7 °C)
Evaporation Rate	ND
Molecular Formula	NA
Molecular Weight	ND
Chemical Family	NONIONIC SURFACTANT
Odor Threshold	ND

## 10 STABILITY & REACTIVITY

### STABILITY/INCOMPATIBILITY

None known. See precautions under Handling & Storage (Section 7).

### HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS

Combustion may produce COx.

## 11 TOXICOLOGICAL INFORMATION

### ROUTES OF EXPOSURE

Inhalation, ingestion, skin and eye contact.

### LD50

LD50: Oral (rat) 3.31 g/kg

LD50: Dermal (rabbit) > 2.0 g/kg

### LC50

ND

### TOXICOLOGICAL DATA

Skin irritation: Draize 1.04/8.0 (rabbit)

Eye Irritation: Draize 14.40/110 (rabbit)

### TERATOGENICITY, MUTAGENICITY, OTHER REPRODUCTIVE EFFECTS

Some polyethylene glycol compounds have produced fetal effects in animal studies.

## 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

## 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 contains one or more substances listed as hazardous, toxic or flammable air pollutants under Section 112 of the Clean Air Act.

**SARA TITLE III RATINGS**

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

**Following ingredients of this product are listed in SARA313**

SARA Listed Ingredient Name	CAS Number	Maximum %
GLYCOL ETHER	NA	3.0

**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****CANADA**

All known major components of this product are listed on the Canadian DSL.

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 1 Flammability 1 Reactivity 0 Special Hazards

**HMIS RATINGS \* - Indicates chronic health hazard**

Health 1\* Flammability 1 Reactivity 0

**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 21-May-2008

Replaces Sheet Dated 03-Aug-2005

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