



Material Safety Data Sheet

Issue Date: 06-FEB-2013
Supersedes: 13-NOV-2012

KLEEN MCT103

1 Identification

Identification of substance or preparation

KLEEN MCT103

Product Application Area

Reverse osmosis membrane cleaner

Company/Undertaking Identification

GE Betz, Inc.
4636 Somerton Road
Trevose, PA 19053
T 215 355-3300, F 215 953 5524

Emergency Telephone

(800) 877-1940

Prepared by Product Stewardship Group: T 215-355-3300 Prepared on: 06-FEB-2013

2 Hazard(s) identification

EMERGENCY OVERVIEW

DANGER

Corrosive to skin. Corrosive to the eyes. Mists/aerosols cause irritation to the upper respiratory tract.

DOT hazard: Corrosive to skin

Odor: Slight Acetic; Appearance: Colorless To Amber, Liquid

Fire fighters should wear positive pressure self-contained breathing apparatus(full face-piece type). Proper fire-extinguishing media: dry chemical, carbon dioxide, foam or water

POTENTIAL HEALTH EFFECTS

ACUTE SKIN EFFECTS:

Primary route of exposure; Corrosive to skin.

ACUTE EYE EFFECTS:

Corrosive to the eyes.

ACUTE RESPIRATORY EFFECTS:

Mists/aerosols cause irritation to the upper respiratory tract.

INGESTION EFFECTS:

May cause gastrointestinal irritation with possible nausea, vomiting, abdominal discomfort and diarrhea.

TARGET ORGANS:

Prolonged or repeated exposures may cause primary irritant dermatitis and/or toxicity to the kidney and reproductive system. Product or product component may increase risk of cancer.

MEDICAL CONDITIONS AGGRAVATED:

Not known.

SYMPTOMS OF EXPOSURE:

Causes irritation of the skin, eyes, and/or respiratory system.

3 Composition / information on ingredients

Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this MSDS for our assessment of the potential hazards of this formulation. This product is subject to the Pennsylvania and New Jersey Worker and Community Right to Know Law.

HAZARDOUS INGREDIENTS:

Cas#	Chemical Name	Range (w/w%)
5064-31-3	NITRILOTRIACETIC ACID, TRISODIUM SALT (NTA.3NA) Possible human carcinogen (IARC=2B)	0.1-1.0
139-89-9	N-HYDROXYETHYLENEDIAMINE TRIACETIC ACID TRISODIUM SALT Irritant (eyes)	15-40
79-14-1	GLYCOLIC ACID (HYDROXYACETIC ACID) Corrosive (skin and eyes)	15-40

NON-HAZARDOUS INGREDIENTS:

CAS#	CHEMICAL NAME
7732-18-5	WATER
2836-32-0	SODIUM GLYCOLATE
7558-80-7	SODIUM PHOSPHATE, MONOBASIC

4 First-aid measures

SKIN CONTACT:

URGENT! Wash thoroughly with soap and water. Remove contaminated clothing. Get immediate medical attention. Thoroughly wash clothing before reuse.

EYE CONTACT:

URGENT! Immediately flush eyes flush eyes continuously with lukewarm, gently flowing water for 30 minutes while removing contact lenses. Hold eyelids apart. Get immediate medical attention.

INHALATION:

If nasal, throat or lung irritation develops - remove to fresh air and get medical attention.

INGESTION:

Do not feed anything by mouth to an unconscious or convulsive

victim. Do not induce vomiting. Immediately contact physician.
Rinse mouth with plenty of water. Dilute contents of stomach using
4-10 fluid ounces (120-300 mL) of milk or water.

NOTES TO PHYSICIANS:

No special instructions

5 Fire-fighting measures

FIRE FIGHTING INSTRUCTIONS:

Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).

EXTINGUISHING MEDIA:

dry chemical, carbon dioxide, foam or water

HAZARDOUS DECOMPOSITION PRODUCTS:

oxides of carbon, nitrogen and phosphorus

FLASH POINT:

> 212F > 100C P-M(CC)

6 Accidental release measures

PROTECTION AND SPILL CONTAINMENT:

Ventilate area. Use specified protective equipment. Contain and absorb on absorbent material. Place in waste disposal container. Flush area with water. Wet area may be slippery. Spread sand/grit.

DISPOSAL INSTRUCTIONS:

Water contaminated with this product may be sent to a sanitary sewer treatment facility, in accordance with any local agreement, a permitted waste treatment facility or discharged under a permit. Product as is - Incinerate or land dispose in an approved landfill.

7 Handling and storage

HANDLING:

Corrosive to skin.

STORAGE:

Keep containers closed when not in use. Do not freeze. If frozen, thaw and mix completely prior to use.

8 Exposure controls / personal protection

EXPOSURE LIMITS

CHEMICAL NAME

NITRILOTRIACETIC ACID, TRISODIUM SALT (NTA.3NA)

PEL (OSHA): LIMITS HAVE NOT BEEN ESTABLISHED BY US OSHA.

TLV (ACGIH): LIMITS HAVE NOT BEEN ESTABLISHED BY ACGIH.

N-HYDROXYETHYLENEDIAMINE TRIACETIC ACID TRISODIUM SALT

PEL (OSHA): LIMITS HAVE NOT BEEN ESTABLISHED BY US OSHA.

TLV (ACGIH): LIMITS HAVE NOT BEEN ESTABLISHED BY ACGIH.

GLYCOLIC ACID (HYDROXYACETIC ACID)

PEL (OSHA): LIMITS HAVE NOT BEEN ESTABLISHED BY US OSHA.

TLV (ACGIH): LIMITS HAVE NOT BEEN ESTABLISHED BY ACGIH.

ENGINEERING CONTROLS:

Adequate ventilation to maintain air contaminants below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:

Use protective equipment in accordance with 29CFR 1910 Subpart I

RESPIRATORY PROTECTION:

A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.
USE AIR PURIFYING RESPIRATORS WITHIN USE LIMITATIONS ASSOCIATED WITH THE EQUIPMENT OR ELSE USE SUPPLIED AIR-RESPIRATORS.
If air-purifying respirator use is appropriate, use a respirator with HEPA cartridges.

SKIN PROTECTION:

gauntlet-type neoprene gloves, chemical resistant apron--
Wash off after each use. Replace as necessary.

EYE PROTECTION:

splash proof chemical goggles, face shield

9 Physical and chemical properties

Spec. Grav. (70F,21C)	1.350	Vapor Pressure (mmHG)	~ 18.0
Freeze Point (F)	-5	Vapor Density (air=1)	> 1.00
Freeze Point (C)	-21		
Viscosity(cps 70F,21C)	50	% Solubility (water)	100.0

Odor	Slight Acetic
Appearance	Colorless To Amber
Physical State	Liquid
Flash Point	P-M(CC) > 212F > 100C
pH As Is (approx.)	3.4
Evaporation Rate (Ether=1)	< 1.00
Percent VOC:	10.0

NA = not applicable ND = not determined

10 Stability and reactivity

CHEMICAL STABILITY:

Stable under normal storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS:

Contact with water reactive compounds may cause fire or explosion.

INCOMPATIBILITIES:

May react with strong oxidizers.

DECOMPOSITION PRODUCTS:

oxides of carbon, nitrogen and phosphorus

11 Toxicological information

Oral LD50 RAT: 4630 mg/kg
NOTE - Calculated according to GHS additivity formula (Category 5)
Dermal LD50 RABBIT: >5000 mg/kg
NOTE - Calculated according to GHS additivity formula
Inhalation LC50 RAT: 12.4 mg/L/4hr
NOTE - Calculated according to GHS additivity formula
Skin Irritation Score RABBIT: Corrosive
NOTE - GHS Category 1C
Eye Irritation Score RABBIT: Corrosive
NOTE - GHS Category 1

12 Ecological information

AQUATIC TOXICOLOGY

Daphnia magna 48 Hour Static Renewal Bioassay (pH adjusted)
LC50= 1890; No Effect Level= 1060 mg/L
Fathead Minnow 96 Hour Static Bioassay with 48-Hour Renewal (pH adjusted)
0% Mortality= 2000 mg/L

BIODEGRADATION

BOD-28 (mg/g): 105
BOD-5 (mg/g): 70
COD (mg/g): 335
TOC (mg/g): 150

13 Disposal considerations

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is :
Not applicable.

Please be advised; however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

14 Transport information

Transportation Hazard: Corrosive to skin
DOT: CORROSIVE LIQUIDS, N.O.S.(PHOSPHORIC ACID; HYDROXYACETIC ACID)
8, UN1760, PGIII
DOT EMERGENCY RESPONSE GUIDE #: 154
Note: Some containers may be DOT exempt, please check BOL for exact container classification
IATA: CORROSIVE LIQUIDS, N.O.S.(PHOSPHORIC ACID; HYDROXYACETIC ACID)
8, UN1760, PGIII
IMDG: CORROSIVE LIQUID, N.O.S.(PHOSPHORIC ACID; HYDROXYACETIC ACID)
8, UN1760, PGIII

15 Regulatory information

TSCA:

All components of this product are included on or are in compliance with the U.S. TSCA regulations.

CERCLA AND/OR SARA REPORTABLE QUANTITY (RQ):

No regulated constituent present at OSHA thresholds

NSF Registered and/or meets USDA (according to 1998 Guidelines):

Registration number: Not Registered

SARA SECTION 312 HAZARD CLASS:

Immediate(acute);Delayed(Chronic)

SARA SECTION 302 CHEMICALS:

No regulated constituent present at OSHA thresholds

SARA SECTION 313 CHEMICALS:

No regulated constituent present at OSHA thresholds

CALIFORNIA REGULATORY INFORMATION

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):

This product contains one or more ingredients at trace levels known to the state of California to cause cancer.

MICHIGAN REGULATORY INFORMATION

No regulated constituent present at OSHA thresholds

16 Other information

HMIS vII		CODE TRANSLATION
Health	3	Serious Hazard
Fire	1	Slight Hazard
Reactivity	0	Minimal Hazard
Special	NONE	No special Hazard
(1) Protective Equipment	D	Goggles,Face Shield,Gloves,Apron

(1) refer to section 8 of MSDS for additional protective equipment recommendations.

CHANGE LOG

	EFFECTIVE DATE	REVISIONS TO SECTION:	SUPERCEDES
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MSDS status:	09-AUG-2000		** NEW **
	11-DEC-2002	3, 5, 14	09-AUG-2000
	12-JAN-2007	2, 14	11-DEC-2002
	13-FEB-2008	2, 8	12-JAN-2007
	20-AUG-2009	3, 8	13-FEB-2008
	06-MAY-2011	10	20-AUG-2009
	07-SEP-2012	14	06-MAY-2011
	13-NOV-2012	2, 4, 8S	07-SEP-2012
	06-FEB-2013	2, 4, 8, 14	13-NOV-2012