



Material Safety Data Sheet

Issue Date: 01-OCT-2008
Supersedes: 24-JUN-2008

KLEEN MCT411

1 Identification

Identification of substance or preparation

KLEEN MCT411

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: 01-OCT-2008

2 Hazard(s) identification

EMERGENCY OVERVIEW

DANGER

Corrosive to skin. Corrosive to the eyes. Dusts cause irritation to the upper respiratory tract.

DOT hazard: Oxidizing solid, Corrosive to aluminum
Odor: None; Appearance: White To Off-White, Powder

Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type). Proper fire-extinguishing media: Dry chemical, carbon dioxide, foam, or thorough quenching with water. Do not partially wet with water. Thorough deluge is required to quench or extinguish.

POTENTIAL HEALTH EFFECTS

ACUTE SKIN EFFECTS:

Primary route of exposure; Corrosive to skin.

ACUTE EYE EFFECTS:

Corrosive to the eyes.

ACUTE RESPIRATORY EFFECTS:

Primary route of exposure; Dusts cause irritation to the upper

respiratory tract.

INGESTION EFFECTS:

May cause severe gastrointestinal irritation.

TARGET ORGANS:

No evidence of potential chronic effects.

MEDICAL CONDITIONS AGGRAVATED:

Pre-existing skin disorders.

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.

HAZARDOUS INGREDIENTS:

Cas#	Chemical Name	Range (w/w%)
7758-29-4	SODIUM TRIPOLYPHOSPHATE Potential irritant	30-60
*	(E065)INORGANIC SALT;;TSRN 125438 - 8142 Irritant (eyes); In-vitro mutagen in mammalian cells	*
*	(E05)ORGANIC CHELANT;TSRN 125438 - 5037P Corrosive (eyes); irritant (skin)	*
1310-73-2	SODIUM HYDROXIDE (CAUSTIC SODA) Corrosive; toxic (by ingestion)	3-7
*	(084)INORGANIC SALT;TSRN 125438 - 5205P Potential irritant (eyes and respiratory)	*
*	(E232)INORGANIC SALT;TSRN 125438 - 6485 Potential irritant (eyes and respiratory)	*

4 First-aid measures

SKIN CONTACT:

URGENT! Wash thoroughly with soap and water for at least 30 minutes. Remove contaminated clothing. Get immediate medical attention. Thoroughly wash clothing before reuse.

EYE CONTACT:

URGENT! Immediately flush eyes with 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. Give nothing by mouth. Immediately contact physician.

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 thorough quenching with water. Do not partially wet with water. Thorough deluge is required to quench or extinguish.

HAZARDOUS DECOMPOSITION PRODUCTS:

oxides of carbon and nitrogen

FLASH POINT:

> 200F > 93C P-M(CC)

MISCELLANEOUS:

Oxidizing solid, Corrosive to aluminum
UN 3085; Emergency Response Guide #140

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. Corrosive to eyes.

STORAGE:

Keep containers closed when not in use. Store in cool, dry location away from acids and alkalies.

8 Exposure controls / personal protection

EXPOSURE LIMITS

CHEMICAL NAME

SODIUM TRIPOLYPHOSPHATE

PEL (OSHA): NOT DETERMINED

TLV (ACGIH): NOT DETERMINED

(E065) INORGANIC SALT;;TSRN 125438 - 8142

PEL (OSHA): NOT DETERMINED

TLV (ACGIH): TWA = 2 MG/M3; STEL = 6 MG/M3; A4 (As Borate compounds, Inorganic)

MISC: Note- manufacturer's recommended exposure limit: 5 mg/m3.

(E05)ORGANIC CHELANT;TSRN 125438 - 5037P

PEL (OSHA): NOT DETERMINED

TLV (ACGIH): NOT DETERMINED

SODIUM HYDROXIDE (CAUSTIC SODA)

PEL (OSHA): 2 MG/M3 (CEILING)

TLV (ACGIH): 2 MG/M3 (CEILING)

(084)INORGANIC SALT;TSRN 125438 - 5205P

PEL (OSHA): 5 MG/M3

TLV (ACGIH): 5 MG/M3

(E232)INORGANIC SALT;TSRN 125438 - 6485

PEL (OSHA): NOT DETERMINED

TLV (ACGIH): TWA = 2 MG/M3; STEL = 6 MG/M3; A4 (As Borate compounds, Inorganic)

8) EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

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 dust/mist filters.

SKIN PROTECTION:

neoprene gloves-- Wash off after each use. Replace as necessary.

EYE PROTECTION:

airtight chemical goggles

9 Physical and chemical properties

Density	50.000 lb/cu.	Vapor Pressure (mmHG)	< 1.0
Freeze Point (F)	NA	Vapor Density (air=1)	< 1.00
Freeze Point (C)	NA		
Viscosity(cps 70F,21C)	NA	% Solubility (water)	~ 5.0
Odor	None		
Appearance	White To Off-White		
Physical State	Powder		
Flash Point	P-M(CC)	> 200F > 93C	
pH 2% Sol. (approx.)	11.0		
Evaporation Rate (Ether=1)	< 1.00		
Percent VOC:	0.0		

NA = not applicable ND = not determined

10 Stability and reactivity

STABILITY:

Stable under normal storage conditions.

HAZARDOUS POLYMERIZATION:

Will not occur.

INCOMPATIBILITIES:

May react with strong oxidizers.

DECOMPOSITION PRODUCTS:

oxides of carbon and nitrogen

11 Toxicological information

Non-Ames Mutagenicity CHO-K1: Positive

NOTE - In-vitro mutagenicity of an ingredient in this product has been demonstrated.

12 Ecological information

AQUATIC TOXICOLOGY

Daphnia magna 48 Hour Acute Toxicity (Estimated)

LC50= 25; 0% Mortality= 18 mg/L

Fathead Minnow 96 Hour Acute Toxicity (Estimated)

LC50= 105; 0% Mortality= 50 mg/L

BIODEGRADATION

BOD-28 (mg/g): 2

BOD-5 (mg/g): 1

COD (mg/g): 97

TOC (mg/g): 40

13 Disposal considerations

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is :
D001=Ignitable.

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

DOT HAZARD: Oxidizing solid, Corrosive to aluminum

PROPER SHIPPING NAME: OXIDIZING SOLID, CORROSIVE,
N.O.S. (SODIUM PERBORATE MONOHYDRATE,
SODIUM HYDROXIDE)

5.1 (8), UN 3085, PG III

DOT EMERGENCY RESPONSE GUIDE #: 140

Note: Some containers may be DOT exempt, please check BOL for exact container classification

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

FOOD AND DRUG ADMINISTRATION:

The ingredients in this product are affirmed as GRAS (Generally Recognized as Safe) for use in membrane applications.

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

Registration number: Not Registered

SARA SECTION 312 HAZARD CLASS:

Immediate(acute);Fire;Reactive

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):

No regulated constituents present

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	1	Slight Hazard
Special	CORR	DOT corrosive
(1) Protective Equipment	B	Goggles,Gloves

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

CHANGE LOG

	EFFECTIVE DATE -----	REVISIONS TO SECTION: -----	SUPERCEDES -----
MSDS status:	06-MAR-2000		** NEW **
	17-APR-2000	3	06-MAR-2000
	24-APR-2000	5	17-APR-2000
	01-MAY-2000	3,5,14	24-APR-2000
	15-JUN-2000	12	01-MAY-2000
	11-JUL-2000	2,8	15-JUN-2000
	08-AUG-2000	7	11-JUL-2000
	23-MAR-2001	15	08-AUG-2000
	31-AUG-2001	15	23-MAR-2001
	26-MAY-2006	8	31-AUG-2001
	07-JUN-2006	2	26-MAY-2006
	16-JUN-2006	2	07-JUN-2006
	21-JUL-2006	3,5,14	16-JUN-2006
	24-AUG-2006	3,5,14	21-JUL-2006
	08-SEP-2006	3,4,7,16	24-AUG-2006

20-SEP-2006 3,9
12-JAN-2007 2,14
22-OCT-2007 15;EDIT:Rebranding
24-JUN-2008 12;EDIT:Rebranding
01-OCT-2008 8

08-SEP-2006
20-SEP-2006
12-JAN-2007
22-OCT-2007
24-JUN-2008