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# SAFETY DATA SHEET

## KLEEN MCT411 (MemKare KL 11 P)

Version: 9.4

Effective date: 03/05/2021

Previous Date: 28/08/2020

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Trade name or designation of the mixture KLEEN MCT411 (MemKare KL 11 P)

Version number 9.4

Revision date 03/05/2021

Supersedes date 28/08/2020

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Reverse Osmosis membrane cleaner

Uses advised against None known.

#### 1.3. Details of the supplier of the safety data sheet JV

Process and Water Chemicals LLC

Address: Street V. Kadirov 10, Chirchik city,

Tashkent Region, Republic of Uzbekistan, 111727

Tel: +99871 209 10 40

Email address: info@pwch.uz

www.pwch.uz

#### 1.4. Emergency telephone number

Multilingual emergency number (24/7)

Street V. Kadirov 10, Chirchik city,

Tashkent Region,

Republic of Uzbekistan, 111727

Tel: +99871 209 10 40

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

##### Physical hazards

Oxidising solids	Category 3	H272 - May intensify fire; oxidiser.
Corrosive to metals	Category 1	H290 - May be corrosive to metals.

##### Health hazards

Acute toxicity, oral	Category 4	H302 - Harmful if swallowed.
Acute toxicity, inhalation	Category 4	H332 - Harmful if inhaled.
Skin corrosion/irritation	Category 1B	H314 - Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.



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Reproductive toxicity (fertility, the unborn child)	Category 1B	H360FD - May damage fertility. May damage the unborn child.
Specific target organ toxicity - single exposure	Category 3 respiratory tract irritation	H335 - May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Category 2 (Respiratory organs)	H373 - May cause damage to organs (Respiratory organs) through prolonged or repeated exposure.

**Hazard summary** May intensify fire; oxidiser. May be corrosive to metals. Causes severe skin burns and eye damage. Harmful if inhaled. Harmful if swallowed. May cause damage to organs through prolonged or repeated exposure. May cause irritation to the respiratory system. May cause reproductive effects. Occupational exposure to the substance or mixture may cause adverse health effects.

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** Ethylenediamine tetraacetic acid, tetrasodium salt (EDTA,4Na), Sodium hydroxide, Sodium perborate monohydrate, Tetrasodium pyrophosphate (TSPP)

#### Hazard pictograms



**Signal word** Danger

#### Hazard statements

H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs (Respiratory organs) through prolonged or repeated exposure.

#### Precautionary statements

##### Prevention

P280 Wear protective gloves/protective clothing/eye protection/face protection.

##### Response

P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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 CENTRE/doctor.

**Storage** Not available.

**Disposal** Not available.

**Supplemental label information** None.

**2.3. Other hazards** Not a PBT or vPvB substance or mixture.

### SECTION 3: Composition/information on ingredients

#### Mixtures

**Chemical description** Dispersant, chelating agent and mild oxidant



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Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Sodium perborate monohydrate	40 - < 50	10332-33-9	01-2119516039-43	005-019-01-5	
<b>Classification:</b>	Ox. Sol. 3;H272, Acute Tox. 4;H302, Eye Dam. 1;H318, Acute Tox. 3;H331, STOT SE 3;H335, Repr. 1B;H360D, Repr. 1B;H360F				
Ethylenediamine tetraacetic acid, tetrasodium salt (EDTA.4Na)	10 - < 20	64-02-8 200-573-9	01-2119486762-27	607-428-00-2	
<b>Classification:</b>	Acute Tox. 4;H302, Eye Dam. 1;H318, Acute Tox. 4;H332, STOT RE 2;H373				
Sodium hydroxide	3 - < 5	1310-73-2 215-185-5	01-2119457892-27	011-002-00-6	
<b>Classification:</b>	Met. Corr. 1;H290, Skin Corr. 1A;H314				
Tetrasodium pyrophosphate (TSPP)	1 - < 3	7722-88-5 231-767-1	01-2119489794-17	-	
<b>Classification:</b>	Acute Tox. 4;H302, Eye Dam. 1;H318				

**List of abbreviations and symbols that may be used above**

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The full text for all H-statements is displayed in section 16.

**SECTION 4: First aid measures****General information**

Take off all contaminated clothing immediately. Contact with combustible material may cause fire. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

**4.1. Description of first aid measures****Inhalation**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a poison centre or doctor/physician if you feel unwell.

**Skin contact**

If on clothing: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Rinse skin with water/shower. Call a physician or poison control centre immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

**Eye contact**

Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control centre immediately.

**Ingestion**

Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**4.2. Most important symptoms and effects, both acute and delayed**

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Prolonged exposure may cause chronic effects.

**4.3. Indication of any immediate medical attention and special treatment needed**

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

**SECTION 5: Firefighting measures****General fire hazards**

May intensify fire; oxidiser. Contact with combustible material may cause fire.



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### 5.1. Extinguishing media

**Suitable extinguishing media** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

### 5.2. Special hazards arising from the substance or mixture

Greatly increases the burning rate of combustible materials. Containers may explode when heated. During fire, gases hazardous to health may be formed.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Self-contained breathing apparatus and full protective clothing must be worn in case of fire. (CEN : EN 469)

**Special fire fighting procedures** In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. Prevent spillage and fire-fighting water from entering in public sewers or the immediate environment.

### Specific methods

Cool containers exposed to flames with water until well after the fire is out.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep away from clothing and other combustible materials. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist. Avoid inhalation of dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**For emergency responders** Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

### 6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

### 6.3. Methods and material for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Ventilate the contaminated area. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Minimise dust generation and accumulation. Wear appropriate protective equipment and clothing during clean-up. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth and place into containers. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

### 6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimise dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Keep away from heat. Take any precaution to avoid mixing with combustibles. Keep away from clothing and other combustible materials. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid breathing mist. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

### 7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Store in tightly closed container. Keep only in the original container. Store in a well-ventilated place. Do not store near combustible materials. Store away from incompatible materials (see Section 10 of the SDS).

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Components	Type	Value	
Sodium hydroxide (CAS 1310-73-2)	STEL	2 mg/m <sup>3</sup>	
Tetrasodium pyrophosphate (TSPP) (CAS 7722-88-5)	TWA	5 mg/m <sup>3</sup>	
Additional components	Type	Value	Form
Dust (CAS N/A)	TWA	4 mg/m <sup>3</sup>	Respirable dust.
		10 mg/m <sup>3</sup>	Inhalable dust.

**Biological limit values** No biological exposure limits noted for the ingredient(s).**Recommended monitoring procedures** Follow standard monitoring procedures.**Derived no effect levels (DNELs)****Workers**

Components	Value	Assessment factor	Notes
Ethylenediamine tetraacetic acid, tetrasodium salt (EDTA.4Na) (CAS 64-02-8)			
Long-term, Local, Inhalation	1,5 mg/m <sup>3</sup>		
Short-term, Local, Inhalation	3 mg/m <sup>3</sup>	9	
Sodium hydroxide (CAS 1310-73-2)			
Long-term, Local, Inhalation	1 mg/m <sup>3</sup>	1	
Short-term, Local, Dermal	2 mg/kg/day		
Short-term, Local, Inhalation	2 mg/m <sup>3</sup>		
Sodium perborate monohydrate (CAS 10332-33-9)			
Long-term, Local, Inhalation	2 mg/m <sup>3</sup>		
Long-term, Systemic, Dermal	101 mg/kg bw/day		
Long-term, Systemic, Inhalation	2 mg/m <sup>3</sup>		
Tetrasodium pyrophosphate (TSPP) (CAS 7722-88-5)			
Long-term, Systemic, Inhalation	17,63 mg/m <sup>3</sup>		

**Predicted no effect concentrations (PNECs)**

Components	Value	Assessment factor	Notes
Ethylenediamine tetraacetic acid, tetrasodium salt (EDTA.4Na) (CAS 64-02-8)			
Freshwater	2,2 mg/l	10	
Intermittent releases	1,2 mg/l	100	
Marine water	0,22 mg/l	100	
Soil	0,72 mg/kg	100	
STP	43 mg/l	10	
Tetrasodium pyrophosphate (TSPP) (CAS 7722-88-5)			
Freshwater	0,05 mg/l	2000	
Intermittent releases	0,5 mg/l	200	
Marine water	0,005 mg/l	20000	
STP	50 mg/l	20	

**8.2. Exposure controls****Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.



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### Individual protection measures, such as personal protective equipment

<b>General information</b>	Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles) and a face shield. CEN : EN 166
<b>Skin protection</b>	
<b>- Hand protection</b>	Gauntlet type neoprene gloves (Protection against unintentional short-term contact) Gauntlet type nitrile gloves (Protection against unintentional short-term contact) Gauntlet type butyl gloves (Protection against unintentional short-term contact) Coating thickness: 0.5 mm Penetration time: > 480 min CEN : EN 374-1/2/3/4; EN 420
<b>- Other</b>	Wear appropriate chemical resistant clothing. CEN : EN ISO 13688; EN ISO 6530; EN ISO 6529; EN 14605
<b>Respiratory protection</b>	In case of insufficient ventilation, use a breathing mask with filter type: P2 CEN : EN 140; EN 143; EN 149
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>Hygiene measures</b>	Observe any medical surveillance requirements. Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
<b>Environmental exposure controls</b>	Environmental manager must be informed of all major releases. Prevent from entering in public sewers or the immediate environment.

## SECTION 9: Physical and chemical properties

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

#### Appearance

<b>Colour</b>	White to off-white
<b>Physical state</b>	Powder

**Odour** None

**Odour threshold** Not available.

**pH (concentrated product)** Not available.

**pH in aqueous solution** 11 (5% SOL.)

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** Not available.

**Flash point** > 100 °C P-M(CC)

**Evaporation rate** < 1 (Ether = 1)

**Flammability (solid, gas)** Not available.

#### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Vapour pressure** < 1 mm Hg

**Vapour pressure temp.** 21 °C

**Vapour density** < 1 (Air = 1)

**Relative density** Not available.

**Relative density temperature** 21 °C

#### Solubility

**Solubility (water)** 5 %





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<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not applicable.
<b>Viscosity temperature</b>	21 °C
<b>Explosive properties</b>	Not explosive.
<b>Oxidising properties</b>	May intensify fire; oxidiser.

### 9.2. Other information

<b>Shelf life</b>	270 days
<b>VOC</b>	0 % (Estimated)

## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	May be corrosive to metals. Keep away from combustible material. Greatly increases the burning rate of combustible materials.
<b>10.2. Chemical stability</b>	Material is stable under normal conditions.
<b>10.3. Possibility of hazardous reactions</b>	Hazardous polymerisation does not occur.
<b>10.4. Conditions to avoid</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
<b>10.5. Incompatible materials</b>	Strong oxidising agents. Combustible material. Reducing Agents. Metals.
<b>10.6. Hazardous decomposition products</b>	Nitrogen oxides (NOx). Carbon oxides. Phosphorus compounds.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Product	Test Results
KLEEN MCT411 (MemKare KL 11 P) (Mixture)	Acute Dermal LD50 Rabbit: > 5000 mg/kg (Calculated according to GHS additivity formula) Acute Inhalation LC50 Rat: 1,2 mg/l 4 Hours (Calculated according to GHS additivity formula (Category 4)) Acute Oral LD50 Rat: 1838 mg/kg (Calculated according to GHS additivity formula)
Components	Test Results
Sodium perborate monohydrate (10332-33-9)	Acute Dermal LD50 Rabbit: > 2000 mg/kg Acute Inhalation LC50 Rat: 0,5 mg/l 4 Hours Acute Oral LD50 Rat: 1120 mg/kg
Sodium hydroxide (1310-73-2)	Acute Dermal LD50 Rabbit: 1350 mg/kg Acute Oral LD50 Rabbit: > 500 mg/kg
Ethylenediamine tetraacetic acid, tetrasodium salt (EDTA.4Na) (64-02-8)	Acute Oral LD50 Rat: 1658 mg/kg
Tetrasodium pyrophosphate (TSPP) (7722-88-5)	Acute Dermal LD50 Rabbit: > 7940 mg/kg Acute Inhalation LC50 Rat: > 1,1 mg/l 4 hour Acute Oral LD50 Rat: 3770 mg/kg
<b>Acute toxicity</b>	Harmful if inhaled. Harmful if swallowed.
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.
<b>Serious eye damage/irritation</b>	Causes serious eye damage.
<b>Respiratory or skin sensitisation</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - repeated exposure</b>	May cause damage to organs (Respiratory organs) through prolonged or repeated exposure.

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<b>Specific target organ toxicity - single exposure</b>	May cause respiratory irritation.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Reproductive toxicity</b>	May damage fertility. May damage the unborn child.
<b>General information</b>	Occupational exposure to the substance or mixture may cause adverse effects.
<b>Information on likely routes of exposure</b>	
<b>Ingestion</b>	Causes digestive tract burns. Harmful if swallowed.
<b>Inhalation</b>	Harmful if inhaled. May cause irritation to the respiratory system.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage.
<b>Symptoms</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.
<b>Mixture versus substance information</b>	No information available.
<b>Other information</b>	Not available.

**SECTION 12: Ecological information**

**12.1. Toxicity** Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

Product	Species	Test Results	
KLEEN MCT411 (MemKare KL 11 P) (CAS Mixture)			
<b>Aquatic</b>			
Crustacea	0% Mortality	Daphnia magna	18 mg/l, Acute toxicity, 48 hour, (Estimated)
	LC50	Daphnia magna	25 mg/l, Acute toxicity, 48 hour, (Estimated)
Fish	0% Mortality	Fathead minnow	50 mg/l, Acute toxicity, 96 hour, (Estimated)
	LC50	Fathead minnow	105 mg/l, Acute toxicity, 96 hour, (Estimated)

**12.2. Persistence and degradability**

- COD (mgO<sub>2</sub>/g) 97 (calculated data)
- BOD 5 (mgO<sub>2</sub>/g) 1 (calculated data)
- BOD 28 (mgO<sub>2</sub>/g) 2 (calculated data)
- Closed Bottle Test (% Degradation in 28 days) 10
- Zahn-Wellens Test (% Degradation in 28 days) 3
- TOC (mg C/g) 40 (calculated data)

**12.3. Bioaccumulative potential****Partition coefficient****n-octanol/water (log K<sub>ow</sub>)**

Ethylenediamine tetraacetic acid, tetrasodium salt (EDTA.4Na) -3,86

**Bioconcentration factor (BCF)**

Ethylenediamine tetraacetic acid, tetrasodium salt (EDTA.4Na) 3

**12.4. Mobility in soil** No data available.

**12.5. Results of PBT and vPvB assessment** Not a PBT or vPvB substance or mixture.





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**12.6. Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**Residual waste** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.  
 According to Hazardous Waste Regulations.

EWC ( European Waste Code ) recommendation : 15 01 10  
 15 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified.

15 01 Packaging (including separately collected municipal packaging waste).  
 15 01 10 Packaging containing residues of or contaminated by dangerous substances.  
 Depending on the origin and state of the waste, other EWC numbers may be applicable too.

**Disposal methods/information** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.  
 According to Hazardous Waste Regulations.

EWC ( European Waste Code ) recommendation : 16 03 05

16 Wastes not otherwise specified in the list.  
 16 03 Off-specification batches and unused products.  
 16 03 05 Organic wastes containing dangerous substances.  
 Depending on the origin and state of the waste, other EWC numbers may be applicable too.

**Special precautions** Dispose in accordance with all applicable regulations.

### SECTION 14: Transport information

#### ADR

**14.1. UN number** UN3084  
**14.2. UN proper shipping name** Corrosive solid, oxidizing, n.o.s. (Sodium hydroxide, Sodium perborate monohydrate, Mixture)  
**14.3. Transport hazard class(es)**  
 Class 8  
 Subsidiary risk 5.1  
 Tunnel restriction code (E)  
**14.4. Packing group** II  
**14.5. Environmental hazards** No.  
**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

#### RID

**14.1. UN number** UN3084  
**14.2. UN proper shipping name** Corrosive solid, oxidizing, n.o.s. (Sodium hydroxide, Sodium perborate monohydrate, Mixture)  
**14.3. Transport hazard class(es)**  
 Class 8  
 Subsidiary risk 5.1  
**14.4. Packing group** II  
**14.5. Environmental hazards** No.  
**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

#### ADN

**14.1. UN number** UN3084  
**14.2. UN proper shipping name** Corrosive solid, oxidizing, n.o.s. (Sodium hydroxide, Sodium perborate monohydrate, Mixture)



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### 14.3. Transport hazard class(es)

Class 8  
Subsidiary risk 5.1

14.4. Packing group II

14.5. Environmental hazards No.

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

### IATA

14.1. UN number UN3084

14.2. UN proper shipping name Corrosive solid, oxidizing, n.o.s. (Sodium hydroxide, Sodium perborate monohydrate, Mixture)

### 14.3. Transport hazard class(es)

Class 8  
Subsidiary risk 5.1

14.4. Packing group II

14.5. Environmental hazards No.

ERG Code Not available.

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

### IMDG

14.1. UN number UN3084

14.2. UN proper shipping name Corrosive solid, oxidizing, n.o.s. (Sodium hydroxide, Sodium perborate monohydrate, Mixture)

### 14.3. Transport hazard class(es)

Class 8  
Subsidiary risk 5.1

14.4. Packing group II

14.5. Environmental hazards

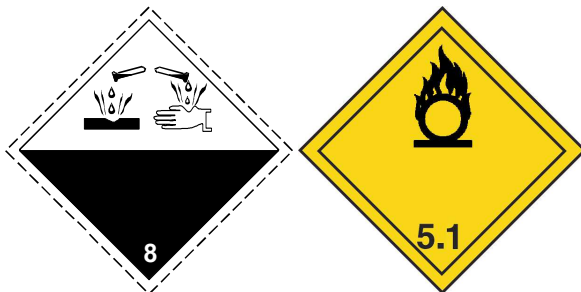
Marine pollutant No.

EmS F-A, S-Q

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code Not applicable.

ADN; ADR; IATA; IMDG; RID



## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended  
Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended  
Not listed.



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**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**  
Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**  
Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**  
Sodium perborate monohydrate (CAS 10332-33-9)

### Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**  
Not listed.

### Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**  
Sodium perborate monohydrate (CAS 10332-33-9) 30

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**  
Not listed.

### Other EU regulations

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**  
Sodium perborate monohydrate (CAS 10332-33-9)

### Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended. According to Directive 92/85/EEC as amended, pregnant women should not work with the product, if there is the least risk of exposure.

### National regulations

Not available.

### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## SECTION 16: Other information

### List of abbreviations

COD: Chemical Oxygen Demand  
EC-No: European Commission Number  
IATA: International Air Transport Association  
IMDG Code: International Maritime Dangerous Goods Code.  
CAS: Chemical Abstract Service.  
CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.  
CEN: European Committee for Standardization (Comité Européen de Normalisation).  
TWA: Time Weighted Average.  
STEL: Short-term Exposure Limit.  
LD50: Lethal Dose 50%.  
LC50: Lethal Concentration 50%.  
EC50: Effective Concentration 50%.



P&WC

## SAFETY DATA SHEET

# KLEEN MCT411 (MemKare KL 11 P)

Version: 9.4

Effective date: 03/05/2021

Previous Date: 28/08/2020

NOEL: No observed effect level.

BOD: Biochemical oxygen demand.

TOC: Total Organic Carbon.

ADR: European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif transport des marchandises dangereuses par route).

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures).

RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer).

Safety data sheets of raw materials.

### References

#### Information on evaluation method leading to the classification of mixture

The physical, health and environmental hazards of this mixture are assessed by applying the classification criteria for each hazard class or differentiation in Parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008 (CLP). The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

#### Full text of any H-statements not written out in full under Sections 2 to 15

H272 May intensify fire; oxidiser.

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H360D May damage the unborn child.

H360F May damage fertility.

H373 May cause damage to organs through prolonged or repeated exposure by inhalation.

### Revision information

This document has undergone significant changes and should be reviewed in its entirety.

### Training information

Provide training on safe handling while considering the type of application and exposure scenarios. Follow training instructions when handling this material.

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

### Based on EC Directive / Regulations

(EC) No 1907/2006 (REACH)

(EC) No 1272/2008

(EU) 2015/830

(EU) No 1357/2014

### Further information

Correction in Section: 2,3,4,5,6,7,8,10,11,12,13,15,16 Initial issue