

SAFETY DATA SHEET

KLEEN MCT515

1. Chemical product and company identification

Product name KLEEN MCT515

Synonyms Not available.

Recommended use and Limitations on use

Recommended use Membrane cleaner

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Company/undertaking identification

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2. Hazards identification

Emergency overview

Dangerous for the environment if discharged into watercourses. May be corrosive to metals.
Causes serious eye irritation. Causes skin irritation. May cause irritation to the respiratory system.

Hazard categories

Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 3

Label elements

Pictograms



Signal word

Warning

Hazard statement

H290	May be corrosive to metals.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H402	Harmful to aquatic life.

Precautionary statement

Prevention	
P234	Keep only in original container.
P280	Wear eye/face protection.
P261	Avoid breathing mist or vapor.
P264	Wash thoroughly after handling.

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P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear eye protection/face protection.
P280 Wear protective gloves.

Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P312 Call a POISON CENTER/doctor// if you feel unwell.
P321 Specific treatment (see on this label).
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P390 Absorb spillage to prevent material damage.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P406 Store in corrosive resistant/ container with a resistant inner liner.

Disposal

P501 Dispose of contents/container to .

Physical and chemical hazards May be corrosive to metals.
Health hazards May cause irritation to the respiratory system. Causes serious eye irritation.
Environmental hazards Harmful to aquatic life.
Supplemental information None.

3. Composition/information on ingredients

Substance/mixture	Mixtures		
Chemical name		Concentration (%)	CAS Number
Benzene, 1,1'-oxybis-, Tetrapropylene Derivs., Sulfonated, Sodium Salts		<= 10	119345-04-9
N-hydroxyethylenediamine triacetic acid trisodium salt		<= 10	139-89-9
Nitrilotriacetic acid, trisodium salt (NTA.Na3)		<= 10	5064-31-3
Potassium carbonate		<= 10	584-08-7
Potassium hydroxide		<= 10	1310-58-3
Sodium carbonate		<= 10	497-19-8
Sodium hydroxide		<= 10	1310-73-2

4. First aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting. If vomiting occurs naturally have victim lean forward to reduce risk of aspiration. Get immediate medical attention. Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms and health effects Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

Expected acute symptoms and delayed symptoms Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

Personal protection for first-aid responders 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.

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Notes to physician Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

5. Fire-fighting measures

Extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).
Extinguishing media to avoid Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards During fire, gases hazardous to health may be formed.
Special fire fighting procedures Move containers from fire area if you can do so without risk.
Protection of fire-fighters Move containers from fire area if you can do so without risk.
Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Avoid breathing mist or vapor. Do not touch or walk through spilled material.
For emergency responders Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. 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. Use personal protection recommended in Section 8 of the SDS.

Environmental precautions Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Clean-up methods and materials and containment measures Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). 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.

Recovery and neutralization Not available.

Prevention of secondary hazards Not available.

7. Handling and storage

Handling Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Storage Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Store in original tightly closed container. Keep only in the original container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Exposure limits

China OELs. Occupational Exposure Limits for Hazardous Agents in the Workplace, Chemical Hazardous Agents (GBZ 2.1-2007)

Components	Type	Value
Potassium hydroxide (CAS 1310-58-3)	MAC	2 mg/m ³
Sodium hydroxide (CAS 1310-73-2)	MAC	2 mg/m ³

Biological limit values No biological exposure limits noted for the ingredient(s).

Monitoring methods Follow standard monitoring procedures.

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Engineering measures	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. Provide eyewash station. Eye wash fountain and emergency showers are recommended.
Personal protective equipment	
Respiratory protection	Chemical respirator with organic vapor cartridge and full facepiece.
Hand protection	Wear appropriate chemical resistant gloves.
Eye protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Chemical resistant apron. Wear appropriate chemical resistant clothing.
Hygiene measures	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.

9. Physical and chemical properties

Appearance	Liquid
Physical state	Liquid.
Form	Liquid.
Color	Colorless to pale yellow
Odor	Mild
pH (concentrated product)	12.5 Neat
pH in aqueous solution	11.4 (5% Solution)
Melting point/freezing point	-9 °C
Boiling point, initial boiling point, and boiling range	104 °C
Flash point	Not available.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	18 mmHg
Vapor pressure temp.	21 °C
Vapor density	< 1
Relative density	1.25
Relative density temperature	21 °C
Density	Not available.
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Evaporation rate	Slower than Ether
Flammability (solid, gas)	Not applicable.
Other data	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Pour point	-7 °C
Specific gravity	1.248
Viscosity	22 mPa.s

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Viscosity temperature	21 °C
VOC (Weight %)	0 % ESTIMATED

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Metals.
Hazardous decomposition products	Carbon oxides. Nitrogen oxides (NOx). Sulfur oxides. Hydrogen cyanide evolved in fire.

11. Toxicological information

Acute toxicity	Not classified. Not known.
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Product	Species	Test Results
KLEEN MCT515 (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)
<i>Inhalation</i>		
LC50	Rat	> 5 mg/l, 4 Hours, (Calculated according to GHS additivity formula)
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)
Components	Species	Test Results
Benzene, 1,1'-oxybis-, Tetrapropylene Derivs., Sulfonated, Sodium Salts (CAS 119345-04-9)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
N-hydroxyethylenediamine triacetic acid trisodium salt (CAS 139-89-9)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 10.054 mg/l, 4 Hour
<i>Oral</i>		
LD50	Rat	1780 mg/kg
Nitrilotriacetic acid, trisodium salt (NTA.Na3) (CAS 5064-31-3)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 5 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	1100 mg/kg

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Components	Species	Test Results
Potassium carbonate (CAS 584-08-7)		
Acute		
<i>Oral</i>		
LD50	Rat	1870 mg/kg
Potassium hydroxide (CAS 1310-58-3)		
Acute		
<i>Oral</i>		
LD50	Rat	333 mg/kg
Sodium carbonate (CAS 497-19-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	2800 mg/kg
Sodium hydroxide (CAS 1310-73-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	1350 mg/kg
<i>Oral</i>		
LD50	Rabbit	> 500 mg/kg

* Estimates for product may be based on additional component data not shown.

Routes of exposure	Inhalation. Skin contact. Eye contact.
Symptoms	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer. This product is not expected to cause respiratory sensitization.
Skin sensitizer	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	
IARC Monographs. Overall Evaluation of Carcinogenicity	
Nitilotriacetic acid, trisodium salt (NTA.Na3) (CAS 5064-31-3)	2B Possibly carcinogenic to humans.
Toxic to reproduction	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity following single exposure	May cause respiratory irritation.
Specific target organ toxicity following repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard. Based on available data, the classification criteria are not met.

12. Ecological information

Ecotoxicological data

Product	Species	Test Results
KLEEN MCT515 (CAS Mixture)		
	LC50	Fathead Minnow
		153 mg/l, Acute Toxicity, 96 hour, (Estimated)

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Product	Species	Test Results
Aquatic Crustacea	LC50 Daphnia magna	53 mg/l, Acute Toxicity, 48 hour, (Estimated)

* Estimates for product may be based on additional component data not shown.

Ecotoxicity Harmful to aquatic life.

Bioaccumulation

Bioaccumulative potential

Bioconcentration factor

Benzene, 1,1'-oxybis-, Tetrapropylene Derivs., Sulfonated, Sodium Salts	3
Nitritotriacetic acid, trisodium salt (NTA.Na3)	3

Octanol/water partition coefficient log Kow

Benzene, 1,1'-oxybis-, Tetrapropylene Derivs., Sulfonated, Sodium Salts	7.84
Nitritotriacetic acid, trisodium salt (NTA.Na3)	-10.1

Mobility in soil No data available for this product.

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

Environmental fate Harmful to aquatic organisms. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Persistence and degradability No data is available on the degradability of this product.

13. Disposal considerations

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.

Local disposal regulations Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

14. Transport information

CNDG

UN number	UN1719
UN proper shipping name	CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, POTASSIUM HYDROXIDE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III

IATA

UN number	UN1719
UN proper shipping name	CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE, Sodium hydroxide)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	154
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

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IMDG

UN number	UN1719
UN proper shipping name	CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE, SODIUM HYDROXIDE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

CNDG; IATA; IMDG



15. Regulatory information

Inventory of Existing Chemical Substances in China

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

*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).

Applicable regulations

OELs. Occupational Exposure Limits for Hazardous Agents in the Workplace, Part 1, Chemical Hazardous Agents
Law of the Peoples Republic of China on prevention of environmental pollution caused by solid waste
Provisions on the Environmental Administration of New Chemical substances
Rule of safety use the chemicals in workplace
List of Dangerous Goods
Classification and Labeling of Dangerous Chemical Substances Commonly Used
Safety Administration Regulations of the Hazardous Chemicals
National Catalogue of Hazardous Waste
Dangerous Chemical Products This safety data sheet conforms to the following laws, regulations and standards:
Regulations on the Control over Safety of Dangerous Chemicals
Regulations on Labor Protection in Workplaces Where Toxic Products Are Used
Measures for the Safe Use of Chemicals in Workplaces
Safety Data Sheet for Chemical Products - Content and Order of Sections (GB/T 16483-2008)
General Rules for Preparation of Precautionary Labels for Chemicals (GB15258-2009)
Packing Symbol of Dangerous Goods(GB190-2009)
Packing - Pictorial Marking for Handling of Goods (GB/T191-2009)

General Rule For Classification and Hazard Communication of Chemicals (GB 13690-2009) and Catalog of Hazardous Chemicals

Potassium hydroxide (CAS 1310-58-3)
Sodium hydroxide (CAS 1310-73-2)

Occupational exposure limits for hazardous agents in the workplace (GBZ 2.1-2007)

Potassium hydroxide (CAS 1310-58-3)
Sodium hydroxide (CAS 1310-73-2)

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Classification and code of dangerous goods (GB 6944-2012)

Regulated.

List of Dangerous Goods (GB 12268-2012)

Regulated.

The Principle of Classification of Transport Packaging Groups of Dangerous Goods (GB/T15098-2008)

Regulated.

General Specifications for Transport Packages of Dangerous Goods (GB 12463-2009)

Regulated.

Regulations on Road Transport of Dangerous Goods

Regulated.

Regulations on Rail Road Transport of Dangerous Goods

Regulated.

UN Recommendations on the Transport of Dangerous Goods (UN RTDG)

Regulated.

16. Other information

References

EPA: ACQUIRE database
GB6944-2012: Classification and Code of Dangerous Goods.
GB12268-2012: List of Dangerous Goods.
NLM: Hazardous Substances Data Base
US. IARC Monographs on Occupational Exposures to Chemical Agents

List of abbreviations

CAS: Chemical Abstract Service Registration Number
ACGIH: American Conference of Governmental Industrial Hygienists
NOEL: No Observed Effect Level
STEL: Short Term Exposure Limit
LC50: Lethal Concentration, 50%
TWA: Time Weighted Average
BOD: Biochemical Oxygen Demand
COD: Chemical Oxygen Demand
TOC: Total Organic Carbon
LD50: Lethal Dose, 50%
NFPA: National Fire Protection Association
EC50: Effect Concentration, 50%
CEN: European Committee for Standardisation

Further information

Correction in Section: 1,3,16