

# SAFETY DATA SHEET

## KLEEN MCT511

### 1. Identification

**Product identifier** KLEEN MCT511  
**Other means of identification** None.  
**Recommended use** Reverse Osmosis membrane cleaner  
**Recommended restrictions** None known.

#### 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

### 2. Hazard(s) identification

<b>Physical hazards</b>	Corrosive to metals	Category 1
<b>Health hazards</b>	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Carcinogenicity	Category 2
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure (oral, dermal)	Category 2 (liver, kidney)
<b>OSHA defined hazards</b>	Not classified.	

#### Label elements



#### Signal word

Danger

#### Hazard statement

May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage. Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs (liver, kidney) through prolonged or repeated exposure by skin contact. May cause damage to organs (liver, kidney) through prolonged or repeated exposure by ingestion.

#### Precautionary statement

##### Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

<b>Response</b>	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor/. Specific treatment (see on this label). Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.
<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant/ container with a resistant inner liner.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Components	CAS #	Percent
N-hydroxyethylenediamine triacetic acid trisodium salt	139-89-9	20 - 40
Triethanolamine	102-71-6	20 - 40
Ethanolamine	141-43-5	10 - 20
Diethanolamine	111-42-2	2.5 - 10
Benzene, 1,1'-oxybis-, Tetrapropylene Derivs., Sulfonated, Sodium Salts	119345-04-9	1 - 2.5
Hydrochloric acid	7647-01-0	1 - 2.5
Sodium glycollate	2836-32-0	1 - 2.5
Sodium hydroxide	1310-73-2	1 - 2.5

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

**Composition comments** Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not use mouth-to-mouth method if victim inhaled the substance. Oxygen or artificial respiration if needed. Seek medical attention.
<b>Skin contact</b>	Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical attention. Thoroughly wash clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Keep eyelids apart. Call a physician or poison control center immediately.
<b>Ingestion</b>	Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Immediately give 1-2 glasses of water, if victim is fully conscious. Call a physician or poison control center immediately.
<b>Most important symptoms/effects, acute and delayed</b>	Edema. 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. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Jaundice. Prolonged exposure may cause chronic effects.
<b>Indication of immediate medical attention and special treatment needed</b>	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.
<b>General information</b>	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.

<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe 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. For personal protection, see section 8 of the SDS.
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<b>Methods and materials for containment and cleaning up</b>	Prevent entry into waterways, sewer, basements or confined areas.
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Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth and place into containers. 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.

<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.
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## 7. Handling and storage

<b>Precautions for safe handling</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not get this material on clothing. Avoid contact during pregnancy/while nursing. Avoid prolonged exposure. When using, do not eat, drink or smoke. 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.
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<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store containers closed when not in use. Do not freeze. If frozen, thaw completely and mix thoroughly prior to use. Store in corrosive resistant container with a resistant inner liner. Keep only in the original container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).
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## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Ethanolamine (CAS 141-43-5)	PEL	6 mg/m3 3 ppm
Hydrochloric acid (CAS 7647-01-0)	Ceiling	7 mg/m3 5 ppm
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m3

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Diethanolamine (CAS 111-42-2)	TWA	1 mg/m3	Inhalable fraction and vapor.
Ethanolamine (CAS 141-43-5)	STEL TWA	6 ppm 3 ppm	
Hydrochloric acid (CAS 7647-01-0)	Ceiling	2 ppm	
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3	
Triethanolamine (CAS 102-71-6)	TWA	5 mg/m3	

## US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Diethanolamine (CAS 111-42-2)	TWA	15 mg/m <sup>3</sup>
Ethanolamine (CAS 141-43-5)		3 ppm
	STEL	15 mg/m <sup>3</sup>
	TWA	6 ppm 8 mg/m <sup>3</sup>
Hydrochloric acid (CAS 7647-01-0)		3 ppm
	Ceiling	7 mg/m <sup>3</sup>
Sodium hydroxide (CAS 1310-73-2)		5 ppm
	Ceiling	2 mg/m <sup>3</sup>

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

### Exposure guidelines

#### US ACGIH Threshold Limit Values: Skin designation

Diethanolamine (CAS 111-42-2)

Can be absorbed through the skin.

**Appropriate engineering controls** Eye wash facilities and emergency shower must be available when handling this product.

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

**Eye/face protection** Splash proof chemical goggles. Face shield.

#### Skin protection

##### Hand protection

Chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.

##### Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

##### 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. Chemical respirator with organic vapor cartridge and full facepiece.

##### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

When using, do not eat, drink or smoke. 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

**Color** Colorless to amber

**Physical state** Liquid

**Odor** Slight

**Odor threshold** Not available.

**pH (concentrated product)** 10.9

**pH in aqueous solution** 10.7 (5% SOL.)

**Melting point/freezing point** -10 °F (-23 °C)

**Initial boiling point and boiling range** 220 °F (104 °C)

**Flash point** > 200 °F (> 93 °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.

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

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

**Vapor pressure** 18 mm Hg

Vapor pressure temp.	70 °F (21 °C)
Vapor density	5 (Air = 1)
Relative density	1.22
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	99 cps
Viscosity temperature	70 °F (21 °C)
Other information	
Percent volatile	36 (Calculated)
Pour point	-5 °F (-21 °C)
Specific gravity	1.217

## 10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Contact with water reactive compounds may cause fire or explosion. Hazardous polymerization does not occur.
Conditions to avoid	Protect from freezing. Avoid contact with strong oxidizers.
Incompatible materials	Strong acids. Strong oxidizing agents.
Hazardous decomposition products	Ammonia, oxides of carbon, nitrogen and sulphur evolved in fire. Hydrogen chloride gas (HCl). Volatile amines.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	Harmful if inhaled. May cause damage to organs by inhalation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.
Skin contact	Causes severe skin burns.  Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Edema. Burning pain and severe corrosive skin damage. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. 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. Jaundice.

### Information on toxicological effects

Acute toxicity	Harmful if inhaled. Narcotic effects. May cause respiratory irritation.
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Product	Species	Test Results
KLEEN MCT511 (CAS Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)
<i>Inhalation</i>		
LC50	Rat	> 20 mg/l, 4 Hours, (Calculated according to GHS additivity formula)

Product	Species	Test Results
<i>Oral</i> LD50	Rat	4200 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)		
<b>Acute</b>		
<i>Dermal</i> LD50	Rabbit	> 2000 mg/kg
<i>Oral</i> LD50	Rat	> 5000 mg/kg
Diethanolamine (CAS 111-42-2)		
<b>Acute</b>		
<i>Dermal</i> LD50	Rabbit	4000 mg/kg
<i>Oral</i> LD50	Rat	1600 mg/kg
Ethanolamine (CAS 141-43-5)		
<b>Acute</b>		
<i>Dermal</i> LD50	Rabbit	1025 mg/kg
<i>Inhalation</i> LC50	Rat	> 1.5 mg/l, 4 Hour
<i>Oral</i> LD50	Rat	1720 mg/kg
N-hydroxyethylenediamine triacetic acid trisodium salt (CAS 139-89-9)		
<b>Acute</b>		
<i>Inhalation</i> LC50	Rat	> 10.054 mg/l, 4 Hour
<i>Oral</i> LD50	Rat	1780 mg/kg
Sodium glycollate (CAS 2836-32-0)		
<b>Acute</b>		
<i>Oral</i> LD50	Rat	7110 mg/kg
Triethanolamine (CAS 102-71-6)		
<b>Acute</b>		
<i>Dermal</i> LD50	Rabbit	> 2000 mg/kg
<i>Oral</i> LD50	Rat	8000 mg/kg

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

<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	Not applicable.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	Risk of cancer cannot be excluded with prolonged exposure.

## IARC Monographs. Overall Evaluation of Carcinogenicity

Diethanolamine (CAS 111-42-2)	2B Possibly carcinogenic to humans.
Hydrochloric acid (CAS 7647-01-0)	3 Not classifiable as to carcinogenicity to humans.
Triethanolamine (CAS 102-71-6)	3 Not classifiable as to carcinogenicity to humans.

## OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

## US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

<b>Reproductive toxicity</b>	Suspected of damaging fertility or the unborn child.
<b>Specific target organ toxicity - single exposure</b>	Narcotic effects. May cause respiratory irritation.
<b>Specific target organ toxicity - repeated exposure</b>	May cause damage to organs (liver, kidney) through prolonged or repeated exposure by skin contact. May cause damage to organs (liver, kidney) through prolonged or repeated exposure by ingestion.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met. May be harmful if swallowed and enters airways.
<b>Chronic effects</b>	May cause damage to organs through prolonged or repeated exposure. May be harmful if absorbed through skin. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.  Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species	Test Results		
KLEEN MCT511 (CAS Mixture)	LC50	Fathead Minnow	61.6 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)	
	NOEL	Fathead Minnow	25 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)	
	<b>Aquatic</b> Crustacea	LC50	Daphnia magna	342 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)
		NOEL	Daphnia magna	250 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)

**Bioaccumulative potential** No data available.

### Partition coefficient n-octanol / water (log Kow)

Benzene, 1,1'-oxybis-, Tetrapropylene Derivs., Sulfonated, Sodium Salts	7.84
Diethanolamine	-1.43
Ethanolamine	-1.31
Sodium glycollate	-5.19
Triethanolamine	-1

### Bioconcentration factor (BCF)

Benzene, 1,1'-oxybis-, Tetrapropylene Derivs., Sulfonated, Sodium Salts	3
Diethanolamine	3
Ethanolamine	3
Sodium glycollate	3
Triethanolamine	3

**Mobility in soil** No data available.

**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.

**Environmental fate** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

## Persistence and degradability

No data is available on the degradability of this product.

- COD (mgO2/g) 805 (calculated data)

- BOD 5 (mgO2/g)	130 (calculated data)
- BOD 28 (mgO2/g)	142 (calculated data)
- Closed Bottle Test (% Degradation in 28 days)	10 (calculated data)
- Zahn-Wellens Test (% Degradation in 28 days)	12 (calculated data)
- TOC (mg C/g)	242 (calculated data)

### 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	D002: Waste Corrosive material [pH <=2 or >=12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	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).
<b>Contaminated packaging</b>	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.

### 14. Transport information

<b>DOT</b>	
<b>UN number</b>	UN3267
<b>UN proper shipping name</b>	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETHANOLAMINE, ETHYLENEDIAMINE TETRAACETIC ACID SODIUM SALT), (DIETHANOLAMINE) RQ
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	III
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>ERG number</b>	153
Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.	
<b>IATA</b>	
<b>UN number</b>	UN3267
<b>UN proper shipping name</b>	Corrosive liquid, basic, organic, n.o.s. (Monoethanolamine, Ethylene Diamine Tetracetic Acid, Tetrasodium Salt)
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	153
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>IMDG</b>	
<b>UN number</b>	UN3267
<b>UN proper shipping name</b>	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Monoethanolamine, Ethylene Diamine Tetracetic Acid, Tetrasodium Salt), RQ(Diethanolamine)
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	
Marine pollutant	No.
<b>EmS</b>	F-A, S-B
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

DOT



IATA; IMDG



## 15. Regulatory information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Diethanolamine (CAS 111-42-2) Listed.

Hydrochloric acid (CAS 7647-01-0) Listed.

Sodium hydroxide (CAS 1310-73-2) Listed.

#### SARA 304 Emergency release notification

Hydrochloric acid (CAS 7647-01-0) 5000 LBS

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate Hazard - Yes

Delayed Hazard - Yes

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
Hydrochloric acid	7647-01-0	5000	500 lbs		

#### SARA 311/312 Hazardous chemical

No

#### SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Diethanolamine	111-42-2	2.5 - 10
Hydrochloric acid	7647-01-0	1 - 2.5

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Diethanolamine (CAS 111-42-2)

Hydrochloric acid (CAS 7647-01-0)

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Hydrochloric acid (CAS 7647-01-0)

**Safe Drinking Water Act (SDWA)**

Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Hydrochloric acid (CAS 7647-01-0) 6545

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Hydrochloric acid (CAS 7647-01-0) 20 %WV

**DEA Exempt Chemical Mixtures Code Number**

Hydrochloric acid (CAS 7647-01-0) 6545

**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	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).

**US state regulations**

WARNING: This product contains a chemical known to the State of California to cause cancer.

**US - Massachusetts RTK - Substance List**

Diethanolamine (CAS 111-42-2)  
Ethanolamine (CAS 141-43-5)  
Hydrochloric acid (CAS 7647-01-0)  
Sodium hydroxide (CAS 1310-73-2)  
Triethanolamine (CAS 102-71-6)

**US - Pennsylvania RTK - Hazardous Substances**

Diethanolamine (CAS 111-42-2)  
Ethanolamine (CAS 141-43-5)  
Hydrochloric acid (CAS 7647-01-0)  
Sodium hydroxide (CAS 1310-73-2)  
Triethanolamine (CAS 102-71-6)

**US - Rhode Island RTK**

Diethanolamine (CAS 111-42-2)  
Hydrochloric acid (CAS 7647-01-0)  
Sodium hydroxide (CAS 1310-73-2)

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Diethanolamine (CAS 111-42-2)  
Hydrochloric acid (CAS 7647-01-0)  
Sodium hydroxide (CAS 1310-73-2)

**US. New Jersey Worker and Community Right-to-Know Act**

Diethanolamine (CAS 111-42-2)  
Ethanolamine (CAS 141-43-5)  
Hydrochloric acid (CAS 7647-01-0)  
Sodium hydroxide (CAS 1310-73-2)  
Triethanolamine (CAS 102-71-6)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Diethanolamine (CAS 111-42-2)  
Ethanolamine (CAS 141-43-5)  
Hydrochloric acid (CAS 7647-01-0)  
Sodium hydroxide (CAS 1310-73-2)  
Triethanolamine (CAS 102-71-6)

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

Diethanolamine (CAS 111-42-2) Listed: June 22, 2012  
Formaldehyde (CAS 50-00-0) Listed: January 1, 1988

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

## 16. Other information, including date of preparation or last revision

**Issue date** Oct-25-2014

**Revision date** Oct-18-2016

**Version #** 2.0

### List of abbreviations

CAS: Chemical Abstract Service Registration Number  
NFPA: National Fire Protection Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
TWA: Time Weighted Average  
STEL: Short Term Exposure Limit  
LD50: Lethal Dose, 50%  
LC50: Lethal Concentration, 50%  
EC50: Effect Concentration, 50%  
NOEL: No Observed Effect Level  
COD: Chemical Oxygen Demand  
BOD: Biochemical Oxygen Demand  
TOC: Total Organic Carbon  
IATA: International Air Transport Association  
IMDG: International Maritime Dangerous Goods Code  
CEN: European Committee for Standardisation  
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

### References:

No data available

### Disclaimer

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### Revision information

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

### Prepared by

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