

SAFETY DATA SHEET

LIQUICLEAN 511

1. Identification

| | |
|-------------------------------|------------------|
| Product identifier | LIQUICLEAN 511 |
| Other means of identification | None. |
| Recommended use | 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

| | | |
|----------------------|--|---|
| Physical hazards | Corrosive to metals | Category 1 |
| Health hazards | 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, repeated exposure (oral, dermal) | Category 2 (liver, kidney) |
| OSHA defined hazards | 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. May cause respiratory irritation. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.

Precautionary statement

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| Prevention | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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. |
| Response | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. 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. Wash contaminated clothing before reuse. |
| Storage | Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container with a resistant inner liner. |

| | |
|--|---|
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Hazard(s) not otherwise classified (HNOC) | None known. |
| Supplemental information | 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 |
| Diethanolamine | 111-42-2 | 2.5 - 10 |
| Ethanolamine | 141-43-5 | 2.5 - 10 |
| 2-hydroxyethylammonium chloride | 2002-24-6 | 1 - 2.5 |
| Benzene, 1,1'-oxybis-, Tetrapropylene Derivs., Sulfonated, Sodium Salts | 119345-04-9 | 1 - 2.5 |
| Sodium glycollate | 2836-32-0 | 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

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|---|--|
| 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 | Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. 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. Call a physician or poison control center immediately. |
| Ingestion | Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. |
| Most important symptoms/effects, 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. Edema. Jaundice. Prolonged exposure may cause chronic effects. |
| Indication of 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 under observation. Symptoms may be delayed. |
| General information | 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. |

5. Fire-fighting measures

| | |
|--|---|
| Suitable extinguishing media | Alcohol resistant foam. Dry powder. Carbon dioxide (CO2). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | During fire, gases hazardous to health may be formed. |
| Special protective equipment and precautions for firefighters | Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. |
| Fire fighting equipment/instructions | In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray. |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. |

6. Accidental release measures

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| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. |
|--|--|

Methods and materials for containment and cleaning up

Use water spray to reduce vapors or divert vapor cloud drift. 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. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Environmental precautions

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

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Avoid prolonged exposure. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Do not get in eyes, on skin, or on clothing. Avoid prolonged or repeated contact with skin. Pregnant or breastfeeding women must not handle this product. Provide adequate ventilation.

Conditions for safe storage, including any incompatibilities

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 away from incompatible materials (see Section 10 of the SDS).

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/m ³ 3 ppm |

US. ACGIH Threshold Limit Values

| Components | Type | Value | Form |
|--------------------------------|------|---------------------|-------------------------------|
| Diethanolamine (CAS 111-42-2) | TWA | 1 mg/m ³ | Inhalable fraction and vapor. |
| Ethanolamine (CAS 141-43-5) | STEL | 6 ppm | |
| | TWA | 3 ppm | |
| Triethanolamine (CAS 102-71-6) | TWA | 5 mg/m ³ | |

US. NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value |
|-------------------------------|------|-------------------------------|
| Diethanolamine (CAS 111-42-2) | TWA | 15 mg/m ³ 3 ppm |
| Ethanolamine (CAS 141-43-5) | STEL | 15 mg/m ³ 6 ppm |
| | TWA | 8 mg/m ³ 3 ppm |

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. Good general ventilation 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.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

| | |
|---------------------------------------|---|
| Skin protection | |
| Hand protection | Wear appropriate 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. Suitable gloves can be recommended by the glove supplier. 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 | If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. 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. |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |
| General hygiene considerations | Observe any medical surveillance requirements. 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 applicable. |

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 | |
| Explosive properties | Not explosive. |
| Oxidizing properties | Not oxidizing. |
| Pour point | -5 °F (-21 °C) |

Specific gravity 1.217
 VOC 36 (Calculated)

10. Stability and reactivity

Reactivity May be corrosive to metals.
Chemical stability Material is stable under normal conditions.
Possibility of hazardous reactions Hazardous polymerization does not occur.
Conditions to avoid Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials Strong acids. Strong oxidizing agents. Metals. Peroxides. Phenols.
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 May cause damage to organs through prolonged or repeated exposure by inhalation. May cause irritation to the respiratory system.
Skin contact Causes severe skin burns. May cause damage to organs through prolonged or repeated exposure by skin contact.
 Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.
Eye contact Causes serious eye damage.
Ingestion Causes digestive tract burns. May cause damage to organs through prolonged or repeated exposure by ingestion.

Symptoms related to the physical, chemical and toxicological characteristics 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. Edema. Jaundice.

Information on toxicological effects

Acute toxicity May cause respiratory irritation.

| Product | Species | Test Results |
|------------------------------|---------|--|
| LIQUICLEAN 511 (CAS Mixture) | | |
| Acute | | |
| <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) |
| <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) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | > 2000 mg/kg |
| <i>Oral</i> | | |
| LD50 | Rat | > 5000 mg/kg |
| Diethanolamine (CAS 111-42-2) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | 4000 mg/kg |
| <i>Oral</i> | | |
| LD50 | Rat | 1600 mg/kg |

| Components | Species | Test Results |
|---|---------|-----------------------|
| Ethanolamine (CAS 141-43-5) | | |
| Acute | | |
| <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) | | |
| Acute | | |
| <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) | | |
| Acute | | |
| <i>Oral</i> | | |
| LD50 | Rat | 7110 mg/kg |
| Triethanolamine (CAS 102-71-6) | | |
| Acute | | |
| <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.

| | |
|---|---|
| Skin corrosion/irritation | Causes skin burns. |
| Serious eye damage/eye irritation | Causes serious eye damage. |
| Respiratory or skin sensitization | |
| Respiratory sensitization | This product is not expected to cause respiratory sensitization. |
| Skin sensitization | 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 | Suspected of causing cancer. |
| IARC Monographs. Overall Evaluation of Carcinogenicity | |
| Diethanolamine (CAS 111-42-2) | 2B Possibly carcinogenic 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. | |
| Reproductive toxicity | Suspected of damaging fertility or the unborn child. |
| Specific target organ toxicity - single exposure | May cause respiratory irritation. |
| Specific target organ toxicity - repeated exposure | 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. |
| Aspiration hazard | Based on available data, the classification criteria are not met. |
| Chronic effects | 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

| Product | | Species | Test Results |
|------------------------------|------|----------------|--|
| LIQUICLEAN 511 (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) |
| Aquatic 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

Partition coefficient n-octanol / water (log Kow)

| | |
|---|-------|
| 2-hydroxyethylammonium chloride | -4.8 |
| 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)

| | |
|---|---|
| 2-hydroxyethylammonium chloride | 3 |
| 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 Not available.

Persistence and degradability

| | |
|---|-----------------------|
| - 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

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|--|--|
| Disposal instructions | 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. |
| Local disposal regulations | Dispose in accordance with all applicable regulations. |
| Hazardous waste code | 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. |
| Waste from residues / unused products | 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. |

14. Transport information

DOT

UN number UN3267

Material name: LIQUICLEAN 511

Version number: 1.0

UN proper shipping name Corrosive liquid, Basic, Organic, n.o.s. (N-hydroxyethylenediamine triacetic acid trisodium salt, Ethanolamine), RQ

Transport hazard class(es)

Class 8

Subsidiary risk -

Packing group II

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

ERG number 154

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

IATA

UN number UN3267

UN proper shipping name Corrosive liquid, Basic, Organic, n.o.s. (N-hydroxyethylenediamine triacetic acid trisodium salt, Ethanolamine)

Transport hazard class(es)

Class 8

Subsidiary risk -

Packing group II

Environmental hazards No.

ERG Code 154

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

IMDG

UN number UN3267

UN proper shipping name Corrosive liquid, Basic, Organic, n.o.s. (N-hydroxyethylenediamine triacetic acid trisodium salt, Ethanolamine), RQ

Transport hazard class(es)

Class 8

Subsidiary risk -

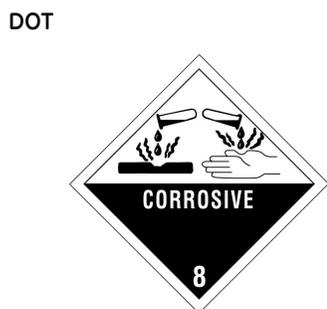
Packing group II

Environmental hazards

Marine pollutant No.

EmS F-A, S-B

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



15. Regulatory information

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

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.

SARA 304 Emergency release notification

Not regulated.

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

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

| Chemical name | CAS number | % by wt. |
|----------------|------------|----------|
| Diethanolamine | 111-42-2 | 2.5 - 10 |

Other federal regulations

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

Diethanolamine (CAS 111-42-2)

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

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

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

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.

US - Massachusetts RTK - Substance List

Diethanolamine (CAS 111-42-2)
Ethanolamine (CAS 141-43-5)
Triethanolamine (CAS 102-71-6)

US - Pennsylvania RTK - Hazardous Substances

Diethanolamine (CAS 111-42-2) Listed.
Ethanolamine (CAS 141-43-5) Listed.
Triethanolamine (CAS 102-71-6) Listed.

US - Rhode Island RTK

Diethanolamine (CAS 111-42-2)
Ethanolamine (CAS 141-43-5)
Triethanolamine (CAS 102-71-6)

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

| | |
|--------------------------------|---------|
| Diethanolamine (CAS 111-42-2) | Listed. |
| Ethanolamine (CAS 141-43-5) | Listed. |
| Triethanolamine (CAS 102-71-6) | Listed. |

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

| | |
|--------------------------------|---------------------|
| Ethanolamine (CAS 141-43-5) | Hazardous substance |
| Triethanolamine (CAS 102-71-6) | Hazardous substance |

US. California Proposition 65

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

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

Issue date Oct-25-2014

Revision date Sep-22-2017

Version # 1.0

List of abbreviations CAS: Chemical Abstract Service Registration Number
 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 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.

Revision information Product and Company Identification: Commercial Names
 Hazard(s) identification: Hazard statement
 Hazard(s) identification: Response
 Hazard(s) identification: GHS Symbols
 Composition / Information on Ingredients: Undisclosed Ingredient Statement
 Handling and storage: Precautions for safe handling
 Physical & Chemical Properties: Multiple Properties
 Toxicological information: Acute toxicity
 Toxicological information: Skin contact
 Toxicological information: Specific target organ toxicity - repeated exposure
 Toxicological information: Specific target organ toxicity - single exposure
 Transport Information: Material Transportation Information
 GHS: Classification

Prepared by This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).