

Issuing Date 18-Sep-2008

Revision Date

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Ultra-Kleen Liquid Cleaner Solution 1

UN-No UN1760

Supplier Address

 Sterilex Corporation
 11409 Cronhill Drive, Suite L
 Owings Mills, MD 21117

Telephone: 1-800-511-1659

Company Emergency Phone Number 1-800-255-3924

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Corrosive

 Harmful by inhalation, in contact with skin and if swallowed
 The product causes burns of eyes, skin and mucous membranes
 Mist or aerosol may be irritating to eyes, nose, throat, and lungs

Appearance Clear, colorless solution

Physical State Liquid

Odor Odorless

Potential Health Effects
Principle Routes of Exposure Skin contact, Eye contact.

Acute Toxicity
Eyes

Causes burns. Corrosive to the eyes and may cause irreversible eye damage.

Skin

Corrosive to skin. Causes burns.

Inhalation

Harmful by inhalation. Inhalation in high concentration may cause irritation of respiratory system.

Ingestion

Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tract. Can burn mouth, throat, and stomach.

Chronic Effects

Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risks of irreversible effects.

Aggravated Medical Conditions

Preexisting eye disorders. Skin disorders. Respiratory disorders.

Environmental Hazard

See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS-No | Weight % |
|-------------------|-----------|---------------|
| Water | 7732-18-5 | 85.06 - 90.33 |
| Hydrogen peroxide | 7722-84-1 | 5.99 - 6.62 |

| | | |
|---|------------|-------------|
| Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides | 85409-23-0 | 2.85 - 3.15 |
| Alkylbenzyltrimethylammonium chloride | 68391-01-5 | 2.85 -3.15 |

4. FIRST AID MEASURES

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| General Advice | Call a poison control center or doctor for treatment advice. Have the product containers or label with you when calling a poison control center or doctor, or going for treatment. |
| Eye Contact | Call a poison control center or doctor for treatment advice. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. |
| Skin Contact | Call a poison control center or doctor for treatment advice. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. |
| Inhalation | Move victim to fresh air. Call a physician or Poison Control Center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. |
| Ingestion | Call a physician or Poison Control Center. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. |
| Notes to Physician | Treat symptomatically. Probable mucosal damage may contraindicate the use of gastric lavage. |
| Protection of First-aiders | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. |

5. FIRE-FIGHTING MEASURES

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| Flammable Properties | Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. May decompose to form oxygen and oxides of carbon and/or nitrogen. |
| Flash Point | Not combustible. |
| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Move containers from fire area if you can do it without risk. Dike fire control water for later disposal; do not scatter the material. |
| Hazardous Combustion Products | Carbon monoxide, Carbon dioxide (CO ₂), Hydrogen chloride, On decomposition product releases oxygen which may intensify fire. |
| <u>Explosion Data</u> | |
| Sensitivity to Mechanical Impact | No data available. |
| Sensitivity to Static Discharge | No data available. |
| Specific Hazards Arising from the Chemical | The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes. |
| Protective Equipment and Precautions for Firefighters | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. |

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|--------------------|-------------------------|-----------------------|--------------------------|--|
| <u>NFPA</u> | Health Hazard 3 | Flammability 0 | Stability 0 | Physical and Chemical Hazards - |
| <u>HMIS</u> | Health Hazard 3* | Flammability 0 | Physical Hazard 0 | Personal Protection - |

*Indicates a chronic health hazard.

6. ACCIDENTAL RELEASE MEASURES

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| Personal Precautions | Use personal protective equipment. Avoid contact with the skin and the eyes. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |
| Methods for Containment | Prevent further leakage or spillage if safe to do so. |
| Methods for Cleaning Up | Dam up. Soak up with inert absorbent material. Use personal protective equipment. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. Prevent product from entering drains. |
| Other Information | Refer to protective measures listed in Sections 7 and 8. Combustible materials exposed to hydrogen peroxide should be thoroughly rinsed to remove all hydrogen peroxide. |

7. HANDLING AND STORAGE

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| Handling | Ensure adequate ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. If spilled, take caution, as material can cause surfaces to become very slippery. |
| Storage | Keep containers in cool areas out of direct sunlight and away from combustibles. Provide mechanical general and/or local exhaust ventilation to prevent release of vapor or mist into work environment. Keep container tightly closed. Keep out of the reach of children. Keep in properly labeled containers. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

NIOSH IDLH: Immediately Dangerous to Life or Health

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| Engineering Measures | Showers Eyewash stations Ventilation systems |
|-----------------------------|--|

Personal Protective Equipment

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| Eye/Face Protection | Tightly fitting safety goggles. Face-shield. |
| Skin and Body Protection | Rubber or neoprene footwear. Impervious clothing materials such as rubber, neoprene, nitrile or polyvinyl chloride. Wear liquid proof rubber or neoprene gloves. |
| Respiratory Protection | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. |

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| Hygiene Measures | When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. For environmental protection, remove and wash all contaminated protective equipment before re-use. Wear suitable gloves and eye/face protection. |
|-------------------------|---|

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|-----------------------------------|----------------------------|---------------------------------|--------------------------|
| Appearance | Clear, colorless solution. | Odor | Odorless. |
| Odor Threshold | No information available | Physical State | Liquid |
| pH | 3.01-5.86 | Autoignition Temperature | Not combustible |
| Flash Point | Not combustible. | Boiling Point/Range | >100°C / >212°F |
| Decomposition Temperature | No information available | Explosion Limits | Not applicable |
| Melting Point/Range | Not applicable | Water Solubility | Completely soluble |
| Flammability Limits in Air | Not applicable | Evaporation Rate | No information available |
| Specific Gravity | 1.00-1.03 | Vapor Density | No data available |
| Solubility | Not applicable | | |
| Vapor Pressure | No data available | | |
| VOC Content | Not applicable | | |

10. STABILITY AND REACTIVITY

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|---|---|
| Stability | Stable under recommended storage conditions. |
| Incompatible Products | Caustic. Iron and heavy metals. Copper alloys, galvanized iron. Incompatible with strong acids and bases. Incompatible with oxidizing agents. |
| Conditions to Avoid | Extremes of temperature and direct sunlight. |
| Hazardous Decomposition Products | Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide (CO). Carbon dioxide (CO ₂). Hydrogen chloride. Oxygen which supports combustion. |
| Hazardous Polymerization | Hazardous polymerization does not occur. |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

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|--------------------------------------|--|
| Product Information | The below results are based on testing performed on representative samples of a mixture similar to this product. Harmful by inhalation, in contact with skin and if swallowed. |
| Irritation | Corrosive to eyes Corrosive to skin Primary Irritation Index (PII) = 6.9 (rabbit) |
| LD50 Oral VALUE (mg/kg) | 5,100 mg/kg (rat) |
| LD50 Dermal VALUE | Not performed. |
| LC50 Inhalation (VAPOR) VALUE | Not performed. |

Chronic Toxicity

| | |
|-----------------------------|---|
| Chronic Toxicity | Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risks of irreversible effects. |
| Target Organ Effects | Eyes, Respiratory system, Skin. |

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

| Chemical Name | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Daphnia Magna (Water Flea) |
|-------------------|----------------------|--|----------------------------|----------------------------|
| Hydrogen peroxide | EC50 = 2.5 mg/L 72 h | LC50= 16.4 mg/L Pimephales promelas 96 h | | EC50 = 7.7 mg/L 24 h |

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Contact your State Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance on proper disposal of waste product.

Contaminated Packaging

Do not re-use empty containers. Dispose of in accordance with local regulations.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name | California Hazardous Waste Status |
|-------------------|---------------------------------------|
| Hydrogen peroxide | Toxic; Corrosive; Ignitable; Reactive |

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| 14. TRANSPORT INFORMATION |
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Note This corrosive material, as per 49 CFR §173.154 and when the product meets the packaging requirements of 49 CFR §173.154 (b)(2) [inner packagings not over 5.0 L (1.3 gallons) net capacity each for liquid] is excepted from labeling and placarding requirements so long as the material is not offered for transport by aircraft.

DOT

| | |
|--|--|
| Proper Shipping Name | Corrosive liquids, n.o.s. |
| Hazard Class | 8 |
| UN-No | UN1760 |
| Packing Group | III |
| Description | UN1760, Corrosive liquids, n.o.s. (Quaternary ammonium compounds), 8, PG III |
| Emergency Response Guide Number | 154 |

TDG

| | |
|-----------------------------|---|
| Proper Shipping Name | Corrosive liquid, n.o.s. |
| Hazard Class | 8 |
| UN-No | UN1760 |
| Packing Group | III |
| Description | UN1760, CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds), 8, PG III |

MEX

| | |
|-----------------------------|--|
| Proper Shipping Name | Corrosive liquid, n.o.s. |
| Hazard Class | 8 |
| UN-No | UN1760 |
| Packing Group | III |
| Description | UN1760, Corrosive liquid, n.o.s. (Quaternary ammonium compounds), 8, III |

ICAO

| | |
|-----------------------------|---|
| UN-No | UN1760 |
| Proper Shipping Name | Corrosive liquid, n.o.s. |
| Hazard Class | 8 |
| Packing Group | III |
| Description | UN1760, Corrosive liquid, n.o.s. (Quaternary ammonium compounds), 8, PG III |

IATA

| | |
|-----------------------------|---|
| UN-No | UN1760 |
| Proper Shipping Name | Corrosive liquid, n.o.s. |
| Hazard Class | 8 |
| Packing Group | III |
| ERG Code | 8L |
| Description | UN1760, Corrosive liquid, n.o.s. (Quaternary ammonium compounds), 8, PG III |

IMDG/IMO

| | |
|-----------------------------|--|
| Proper Shipping Name | Corrosive liquid, n.o.s. |
| Hazard Class | 8 |
| Subsidiary Class | + |
| UN-No | UN1760 |
| Packing Group | III |
| EmS No. | F-A, S-B |
| Description | UN1760, Corrosive liquid, n.o.s. (Quaternary ammonium compounds), 8(+), PG III |

RID

| | |
|-----------------------------|--------------------------|
| Proper Shipping Name | Corrosive liquid, n.o.s. |
| Hazard Class | 8 |
| UN-No | UN1760 |

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|----------------------------|---|
| Packing Group | III |
| Classification Code | C9 |
| Description | UN1760, Corrosive liquid, n.o.s. (Quaternary ammonium compounds), 8, III, RID |
| ADR/RID-Labels | 8 |

ADR

| | |
|-----------------------------|--|
| Proper Shipping Name | Corrosive liquid, n.o.s. |
| Hazard Class | 8 |
| UN-No | UN1760 |
| Packing Group | III |
| Classification Code | C9 |
| Description | UN1760, Corrosive liquid, n.o.s. (Quaternary ammonium compounds), 8, III |

ADN

| | |
|-----------------------------|--|
| Proper Shipping Name | Corrosive liquid, n.o.s. |
| Hazard Class | 8 |
| Packing Group | III |
| Classification Code | C9 |
| Special Provisions | 274 |
| Description | UN1760, Corrosive liquid, n.o.s. (Quaternary ammonium compounds), 8, III |
| Hazard Labels | 8 |
| Limited Quantity | LQ7 |

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| 15. REGULATORY INFORMATION |
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International Inventories

| | |
|---------------|-----------------|
| TSCA | Complies |
| DSL | Does not comply |
| EINECS | Complies |
| ENCS | Does not comply |
| IECSC | Complies |
| KECL | Does not comply |
| PICCS | Does not comply |

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

| | |
|--|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | Yes |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|-------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Hydrogen peroxide | X | X | X | X |
| Benzyl chloride | 100 lb | | | X |

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

| Chemical Name | Hazardous Substances RQs | Extremely Hazardous Substances RQs |
|-------------------|--------------------------|------------------------------------|
| Hydrogen peroxide | | 1000 lb |
| Benzyl chloride | 100 lb | 100 lb |

U.S. State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals:

| Chemical Name | CAS-No | California Prop. 65 |
|-----------------|----------|---------------------|
| Benzyl chloride | 100-44-7 | Carcinogen |

U.S. State Right-to-Know Regulations

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-------------------|---------------|------------|--------------|----------|--------------|
| Hydrogen peroxide | X | X | X | | X |
| Benzyl chloride | X | X | X | X | X |

International Regulations

Mexico - Grade

Serious risk, Grade 3

| Chemical Name | Carcinogen Status | Exposure Limits |
|-------------------|-------------------|--|
| Hydrogen peroxide | A3 | Mexico: TWA= 1.5 mg/m ³ Mexico: TWA= 1 ppm Mexico: STEL= 2 ppm Mexico: STEL= 3 mg/m ³ |
| Benzyl chloride | A3 | Mexico: TWA= 1 ppm Mexico: TWA= 5 mg/m ³ |

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

E Corrosive material



| Chemical Name | NPRI |
|-----------------|------|
| Benzyl chloride | X |

Legend

X - Listed

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

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Revision Date

Revision Note No information available

Disclaimer

The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text

End of Safety Data Sheet