

1. Identification

Product identifier	Clorox Multi-Purpose Cleaner - Citrus Groves	
Other means of identification	Document Number: USA002070	
Recommended use	Cleaner	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Manufacturer		
Company name	The Clorox Company	
Address	1221 Broadway Oakland, CA 94612 United States	
Telephone	1-510-271-7000	
E-mail	Not available.	
Emergency phone number	Medical Emergency:	1-800-446-1014
	Transportation Emergency:	1-800-424-9300 (Chemtrec)

2. Hazards Identification

Physical hazards	Not classified.	
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Danger	
Hazard statement	Causes severe skin burns and eye damage. Harmful if swallowed. Harmful if inhaled. May cause respiratory irritation.	
Precautionary statement		
Prevention	Do not breathe mist. Wash thoroughly after handling. Wear protective gloves, protective clothing and eye protection. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.	
Response	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. Specific treatment (see information on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
Storage	Store locked up. Store in a well-ventilated place. Keep container tightly closed.	
Disposal	Dispose of container in accordance with local, regional, national and international regulations.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	This SDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is greater potential for large-scale or prolonged exposure. This SDS is not applicable for consumer use of our products. For consumer use, all precautionary and first aid language is provided on the product label in accordance with the applicable government regulations.	

3. Composition/Information on Ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
1-Dodecanamine, N,N-dimethyl-,N-oxide		1643-20-5	10-30*
Alkyl benzyl dimethyl ammonium chloride		68424-85-1	5-10*
Ethanol		64-17-5	0.5-1.5*
Ethylenediaminetetraacetic acid, potassium salt		5964-35-2	1-5*
Monoethanolamine		141-43-5	5-10*
N,N-dimethyl-1-tetradecanamine, N-oxide		3332-27-2	5-10*

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

Composition comments US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

4. First Aid Measures

Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.
Skin contact	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor. Specific treatment (see information on this label).
Eye contact	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 or doctor.
Ingestion	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Burning pain and severe corrosive skin damage.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
General information	If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. KEEP OUT OF REACH OF CHILDREN AND PETS.

5. Fire Fighting Measures

Suitable extinguishing media	Treat for surrounding material.
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	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	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.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. 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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Methods and materials for containment and cleaning up

Prevent entry into 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 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.

Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling

Avoid contact with eyes and skin. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. When using do not eat or drink.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a cool, dry and well-ventilated place. KEEP OUT OF REACH OF CHILDREN AND PETS.

8. Exposure Controls/Personal Protection

Occupational exposure limits

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

Components	Type	Value
Ethanol (CAS 64-17-5)	PEL	1900 mg/m3 1000 ppm
Monoethanolamine (CAS 141-43-5)	PEL	6 mg/m3 3 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Ethanol (CAS 64-17-5)	STEL	1000 ppm
Monoethanolamine (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Ethanol (CAS 64-17-5)	TWA	1900 mg/m3 1000 ppm
Monoethanolamine (CAS 141-43-5)	STEL	15 mg/m3 6 ppm
	TWA	8 mg/m3 3 ppm

Biological limit values

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

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields.

Skin protection

Hand protection

Impervious gloves. Confirm with reputable supplier first.

Other

Wear appropriate chemical resistant clothing. As required by employer code.

Respiratory protection

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards

Not applicable.

General hygiene considerations

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. Wash hands before breaks and immediately after handling the product. When using do not eat or drink.

9. Physical and Chemical Properties

Appearance	Clear
Physical state	Liquid.
Form	Liquid.
Color	White
Odor	Citrus
Odor threshold	Not available.
pH	11 - 12.5
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	Not available.
Partition coefficient (n-octanol/water)	Not available.
Flash point	> 199.4 °F (> 93.0 °C) Pensky-Martens Closed Cup
Evaporation rate	Not available.
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	Not available.
Vapor density	Not available.
Relative density	0.993
Solubility(ies)	Complete
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and Reactivity

Reactivity	This product may react with strong oxidizing agents.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Do not mix with other chemicals. DO NOT MIX WITH BLEACH or use in conjunction with other household products.
Incompatible materials	Oxidizers. Caustics. Acids.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Hydrogen chloride.

11. Toxicological Information

Information on likely routes of exposure

Inhalation	Harmful if inhaled. May cause respiratory tract irritation.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Harmful if swallowed. May cause stomach distress, nausea or vomiting. Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause redness and pain.

Information on toxicological effects

Acute toxicity See below.

Components	Species	Test Results
1-Dodecanamine, N,N-dimethyl-,N-oxide (CAS 1643-20-5)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg, ECHA
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Rat	1064 mg/kg, ECHA
Alkyl benzyl dimethyl ammonium chloride (CAS 68424-85-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	3412 mg/kg, ECHA
<i>Inhalation</i>		
LC50	Rat	0.3 mg/l/4h, ECHA
<i>Oral</i>		
LD50	Rat	795 mg/kg, ECHA
Ethanol (CAS 64-17-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 15800 mg/kg, SIDS initial assessment report
<i>Inhalation</i>		
LC50	Mouse	> 60000 ppm, 60 Minutes, ECHA
<i>Oral</i>		
LD50	Rat	10470 mg/kg, ECHA
Ethylenediaminetetraacetic acid, potassium salt (CAS 5964-35-2)		
Acute		
<i>Dermal</i>		
LD50	Not available	
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50		1780 - 2000 mg/kg, ECHA
Monoethanolamine (CAS 141-43-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	2504 mg/kg, 24 Hours, ECHA
<i>Inhalation</i>		
LC50	Rat	> 1.3 mg/L, 6 Hours, ECHA
<i>Oral</i>		
LD50	Rat	1089 mg/kg, ECHA
N,N-dimethyl-1-tetradecanamine, N-oxide (CAS 3332-27-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg, 24 Hours, ECHA
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Rat	> 1500 mg/kg, ECHA

Skin corrosion/irritation	Causes severe burns.
Exposure minutes	Not available.
Erythema value	Not available.
Oedema value	Not available.
Serious eye damage/eye irritation	Causes serious eye damage.
Corneal opacity value	Not available.
Iris lesion value	Not available.
Conjunctival reddening value	Not available.
Conjunctival oedema value	Not available.
Recover days	Not available.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
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	See below.
IARC Monographs. Overall Evaluation of Carcinogenicity	Not listed.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)	Not regulated.
US. National Toxicology Program (NTP) Report on Carcinogens	Not listed.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Not available.
Further information	Not available.

12. Ecological Information

Ecotoxicity	See below		
Ecotoxicological data			
Components	Species		Test Results
Alkyl benzyl dimethyl ammonium chloride (CAS 68424-85-1)			
Aquatic			
Fish	LC50	Striped bass (<i>Morone saxatilis</i>)	10.4 - 19.1 mg/L, 96 hours
Ethanol (CAS 64-17-5)			
Crustacea	EC50	Daphnia	11744.5 mg/L, 48 Hours
Aquatic			
Crustacea	EC50	Water flea (<i>Daphnia magna</i>)	7.7 - 11.2 mg/L, 48 hours
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>)	> 100 mg/L, 96 hours
Monoethanolamine (CAS 141-43-5)			
Algae	IC50	Algae	15 mg/L, 72 Hours
Crustacea	EC50	Daphnia	65 mg/L, 48 Hours
Aquatic			
Fish	LC50	Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>)	114 - 196 mg/L, 96 hours
Persistence and degradability	Not available.		
Bioaccumulative potential	Not available.		
Partition coefficient n-octanol / water (log Kow)			
1-Dodecanamine, N,N-dimethyl-,N-oxide			4.67
Ethanol			-0.31

Partition coefficient n-octanol / water (log Kow)

Monoethanolamine

-1.31

Mobility in soil	Not available.
Mobility in general	Not available.
Other adverse effects	Not available.

13. Disposal Considerations

Disposal instructions	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.
Waste from residues / unused products	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.

14. Transport Information

General	Canada: TDG Proof of Classification: Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.
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U.S. Department of Transportation (DOT)**Basic shipping requirements:**

UN number	UN1760
Proper shipping name	Corrosive liquids, n.o.s.
Technical name	Alkyl benzyl dimethyl ammonium chloride
Hazard class	Limited Quantity - US
Packing group	III
Packaging exceptions	154

Transportation of Dangerous Goods (TDG - Canada)**Basic shipping requirements:**

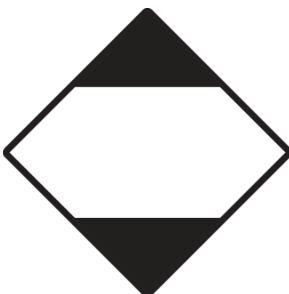
UN number	UN1760
Proper shipping name	CORROSIVE LIQUID, N.O.S.
Technical name	Alkyl benzyl dimethyl ammonium chloride
Hazard class	Limited Quantity - Canada
Packing group	III
Special provisions	16

IATA/ICAO (Air)**Basic shipping requirements:**

UN number	UN1760
Proper shipping name	Corrosive liquid, n.o.s.
Technical name	Alkyl benzyl dimethyl ammonium chloride
Hazard class	Limited Quantity - IATA
Packing group	III

IMDG (Marine Transport)**Basic shipping requirements:**

UN number	UN1760
Proper shipping name	CORROSIVE LIQUID, N.O.S.
Technical name	Alkyl benzyl dimethyl ammonium chloride
Hazard class	Limited Quantity - IMDG
Packing group	III

DOT; IMDG; TDG



15. Regulatory Information

US federal regulations	<p>This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.</p> <p>Product is compliant with CPSC regulatory guidelines.</p> <p>DANGER CORROSIVE.</p> <p>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated.</p> <p>CERCLA Hazardous Substance List (40 CFR 302.4) Not listed.</p> <p>SARA 304 Emergency release notification Not regulated.</p> <p>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052) Not regulated.</p> <p>Superfund Amendments and Reauthorization Act of 1986 (SARA)</p> <table border="0"> <tr> <td style="padding-right: 20px;">SARA 302 Extremely hazardous substance</td> <td>No</td> </tr> <tr> <td>SARA 311/312 Hazardous chemical</td> <td>Yes</td> </tr> </table> <p>Classified hazard categories</p> <ul style="list-style-type: none"> Acute toxicity (any route of exposure) Skin corrosion or irritation Serious eye damage or eye irritation Specific target organ toxicity (single or repeated exposure) <p>SARA 313 (TRI reporting) Not regulated.</p>	SARA 302 Extremely hazardous substance	No	SARA 311/312 Hazardous chemical	Yes
SARA 302 Extremely hazardous substance	No				
SARA 311/312 Hazardous chemical	Yes				
Other federal regulations	<p>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Not regulated.</p> <p>Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated.</p> <p>Safe Drinking Water Act (SDWA) Not regulated.</p> <p style="padding-left: 40px;">FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace</p> <table border="0" style="margin-left: 40px;"> <tr> <td>Ethanol (CAS 64-17-5)</td> <td>Low priority</td> </tr> </table> <p>Food and Drug Administration (FDA) Not regulated.</p>	Ethanol (CAS 64-17-5)	Low priority		
Ethanol (CAS 64-17-5)	Low priority				
US state regulations	<p>See below</p> <p>US - Illinois Chemical Safety Act: Listed substance Ethanol (CAS 64-17-5)</p> <p>US - Louisiana Spill Reporting: Listed substance Ethanol (CAS 64-17-5) Listed.</p> <p>US - Minnesota Haz Subs: Listed substance Ethanol (CAS 64-17-5) ETHANOL (SEE ETHYL ALCOHOL) ETHYL ALCOHOL (ETHANOL) 2-AMINOETHANOL (SEE ETHANOLAMINE) ETHANOLAMINE</p> <p>US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100) Not listed.</p>				

US. Massachusetts RTK - Substance List

Ethanol (CAS 64-17-5)
 Monoethanolamine (CAS 141-43-5)

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

Ethanol (CAS 64-17-5)
 Monoethanolamine (CAS 141-43-5)

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

Ethanol (CAS 64-17-5)
 Monoethanolamine (CAS 141-43-5)

US. Rhode Island RTK

Ethanol (CAS 64-17-5)
 Monoethanolamine (CAS 141-43-5)

California Proposition 65

This product is not subject to warning labeling under the California Proposition 65 regulation.

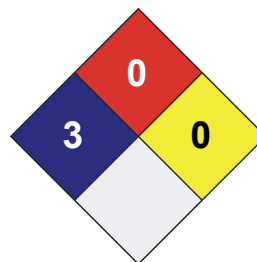
Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

**Disclaimer**

The information in the safety data sheet was written by Dell Tech Laboratories Ltd. (www.delltech.com) based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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Version # 01

Further information Not available.

Other information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Reference Item: 513079-001

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