



SAFETY DATA SHEETS

The batteries are articles and are not subject to the OSHA Hazard Communication Standard Requirement as shown in paragraph (b)(6)(v) of §1910.1200. This sheet is provided as technical information only. The information and recommendations set forth are made in good faith and are believed to be accurate as of the date of preparation. However, **Maxell makes no warranty expressed or implied.**

1. Identification

- (a) Product identifier used on the label:

LR/maxell/+

- (b) Other means of identification:

Alkaline battery (LR20,LR14,LR6,LR03,LR1,6LF22)

- (c) Recommended use of the chemical and restrictions on use:

See 7.Handling and storage

- (d) Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Manufacturer: Maxell Asia,Ltd.

Address: Unit Nos.03B-06,13/F, 909CheungShaWanRoad,Kowloon,HongKong

Tel: +(852)2730 9243

Fax: +(852)2735 6250

- (e) Emergency phone number.

Tel: +(852)2730 9243

2. Hazard(s) identification

- (a) Classification of the chemical in accordance with paragraph (d) of §1910.1200

Chemical battery (Primary)

- (b) Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with paragraph (f) of §1910.1200. (Hazard symbols may be provided as graphical reproductions in black and white or the name of the symbol, e.g., flame, skull and crossbones)

N/A

- (c) Describe any hazards not otherwise classified that have been identified during the classification process

Improper handling of the battery could lead to distortion, leakage*, overheating, or explosion and cause human injury or equipment trouble. Especially touch with liquid



leaked out of battery could cause injury like a loss of eyesight. . Please strictly observe safety instructions.

(* Leakage is defined as an unintended escape of liquid from a battery.)

- (d) Where an ingredient with unknown acute toxicity is used in a mixture at a concentration $\geq 1\%$ and the mixture is not classified based on testing of the mixture as a whole, a statement that X% of the mixture consists of ingredient(s) of unknown acute toxicity is required

No such an ingredient is contained in the product.

3. Composition/information on ingredients

Except as provided for in paragraph (i) of §1910.1200 on trade secrets:

For Substances:

- (a) Chemical name
 (b) Common name and synonyms
 (c) CAS number and other unique identifiers
 (d) Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substance

Chemical Name	Common Name and Synonyms	CAS #	Content (Wt %)
Manganese Dioxide	MnO ₂	1313-13-9	35 to 45
Potassium Hydroxide	KOH	1310-58-3	5 to 15
Graphite	C	7782-42-5	1 to 5
Zinc	Zn	7440-66-6	10 to 20
Mercury	Hg	7439-97-6	Not used (Less than 5ppm)
Cadmium	Cd	7440-43-9	Not used (Less than 20ppm)
Lead	Pb	7439-92-1	Not used (Less than 40ppm)

For Mixtures

In addition to the information required for substances:

- (a) The chemical name and concentration (exact percentage) or concentration ranges of all ingredients which are classified as health hazards in accordance with paragraph (d) of §1910.1200 and
- (1) Are present above their cut-off/concentration limits; or
- (2) Present a health risk below the cut-off/concentration limits.

No such an ingredient is contained in the product.



- (b) The concentration (exact percentage) shall be specified unless a trade secret claim is made in accordance with paragraph (i) of §1910.1200, when there is batch-to-batch variability in the production of a mixture, or for a group of substantially similar mixtures (See A.0.5.1.2) with similar chemical composition. In these cases, concentration ranges may be used.

No such a situation would happen during the production from batch to batch.

For All Chemicals Where a Trade Secret is claimed

Where a trade secret is claimed in accordance with paragraph (i) of §1910.1200, a statement that the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret is required.

4. First-aid measures

- (a) Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion

Inhalation	<u>Explosion may make fumes of alkaline solution and the fumes could cause respiratory irritation. Rinse by plenty of water and consult a physician.</u>
Skin Contact	<u>Immediately flush skin with plenty of water. If itch or irritation by chemical burn persists, consult a physician.</u>
Eye Contact	<u>Immediately flush eye with plenty of water for at least 15 minutes. Consult a physician immediately</u>
Ingestion	<u>If swallowing a battery, consult a physician immediately.</u> <u>If contents come into mouth, immediately rinse by plenty of water and consult a physician.</u>

- (b) Most important symptoms/ effects, acute and delayed

NA.

- (c) Indication of immediate medical attention and special treatment needed, if necessary

Wash with clean water immediately.

5. Fire-fighting measures

- (a) Suitable (and unsuitable) extinguishing media.

Any class of extinguisher is effective.

- (b) Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products).



The batteries could be exploded by heat of fire and alkaline solution could disperse.

- (c) Special protective equipment and precautions for fire-fighters.

Use self-contained breathing apparatus and full gear not to inhale or not to come into eyes or skin with harmful alkaline mist.

6. Accidental release measures

- (a) Personal precautions, protective equipment, and emergency procedures.

Wear protective clothing. Keep unprotected persons away.

- (b) Methods and materials for containment and cleaning up.

When the liquid leaks out of the battery, absorb and wipe it with dry cloth.

If touching the liquid, Observe Section 4 - First Aid Measures

7. Handling and storage

- (a) Precautions for safe handling.

● **Never swallow.**

If swallowed, see Section 4 - First Aid Measures.

● **Never touch the liquid leaked out of battery.**

If the liquid comes into eyes, or mouth, see Section 4 - First Aid Measures.

● **Never short-circuit the battery.**

Do not allow the positive and negative terminals to short-circuit. Never carry or keep battery with metal goods such as a necklace or a hairpin. Otherwise battery could cause distortion, leakage, overheating, or explosion of the battery.

● **Never charge.**

The battery is not designed to be charged by any other electrical source. Charging could generate gas and internal short-circuiting, leading to distortion, leakage, overheating, or explosion.

● **Never expose to open flames.**

Exposing to flames could cause explosion of the battery.

● **Never heat.**

Heating the battery more than 100 degree centigrade could increase the internal pressure leading to distortion, leakage, overheating, or explosion.

● **Never disassemble or deform.**

Disassembly or deforming of the battery could cause the leakage, overheating, or explosion due to an internal short-circuits..



(b) Conditions for safe storage, including any incompatibilities.

Never let the battery contact with water. Never store the battery in hot and high humid place.

8. Exposure controls/personal protection

(a) OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available.

N/A

(b) Appropriate engineering controls.

Do not disassemble the product without professional basis.

(c) Individual protection measures, such as personal protective equipment.

No special equipment is required for handling, carrying or using the product.
The chemical materials concluded in the Product is sealed up, thus being stable, safe and eco-friendly under common conditions.

9. Physical and chemical properties

		LR20,LR14,LR6,LR03,LR1 : cylindrical shape with primary cell of 1.5V nominal voltage.
(a) Appearance (physical state, color, etc.)	:	6LF22: prismatic shape with primary cell of 9V nominal voltage.
(b) Odor	:	not applicable
(c) Odor threshold	:	not applicable
(d) pH	:	not applicable
(e) Melting point/ freezing point	:	not applicable
(f) Initial boiling point and boiling range	:	not applicable
(g) Flash point	:	not applicable
(h) Evaporation rate	:	not applicable
(i) Flammability (solid, gas)	:	not applicable
(j) Upper/lower flammability or explosive limits	:	not applicable



- (k) Vapor pressure : not applicable
- (l) Vapor density : not applicable
- (m) Relative density : not applicable
- (n) Solubility(ies) : not applicable
- (o) Partition coefficient:
n-octanol/ water : not applicable
- (p) Auto-ignition temperature : not applicable
- (q) Decomposition temperature : not applicable
- (r) Viscosity : not applicable

10. Stability and reactivity

- (a) Reactivity

N/A

- (b) Chemical stability

Stable (performance deterioration depends on circumstance.)

- (c) Possibility of hazardous reactions

No.

- (d) Conditions to avoid (e.g., static discharge, shock, or vibration)

See 7.Handling and storage

- (e) Incompatible materials

No.

- (f) Hazardous decomposition products

No.

11. Toxicological information

Description of the various toxicological (health) effects and the available data used to identify those effects, including

- (a) Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)

As the contents are sealed in the battery case, there is no toxicity.



(b) Symptoms related to the physical, chemical and toxicological characteristics

People might feel itching, if the inner liquid splashes onto skin.

(c) Delayed and immediate effects and also chronic effects from short- and long-term exposure

N/A

(d) Numerical measures of toxicity (such as acute toxicity estimates)

N/A

(e) Whether the hazardous chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA

No.

12. Ecological information (Non-mandatory)

(a) Ecotoxicity (aquatic and terrestrial, where available): N/A

(b) Persistence and degradability: N/A

(c) Bio-accumulative potential: N/A

(d) Mobility in soil: N/A

(e) Other adverse effects (such as hazardous to the ozone layer) : If the battery is disposed in land or water, battery case may be corroded and the liquid may leak out of the battery. Information regarding ecological concerns has not been reported.

13. Disposal considerations (Non-mandatory)

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging.

The battery may be regulated by national or local regulation. Please follow the instructions of proper regulation. As electric capacity is left in a discarded battery and it comes into contact with other metals, it could lead to distortion, leakage, overheating, or explosion, so make sure to cover the (+) and (-) terminals with friction tape or some other insulator before disposal.

14. Transport information (Non-mandatory)

In general, all batteries in all forms of transportation (ground, air, or ocean) must be packaged in a safe and responsible manner. Regulatory concerns from all agencies for safe packaging require that batteries be packaged in a manner that prevents short circuits and be contained in



“strong outer packaging” that prevents spillage of contents. All original packaging for Maxell alkaline batteries has been designed to be compliant with these regulatory concerns.

Alkaline batteries (sometimes referred to as “Dry cell” batteries) are not listed as dangerous goods under the ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road, the IMDG International Maritime Dangerous Goods Code, UN Dangerous Good Regulations, IATA Dangerous Goods Regulations 59th edition, ICAO Technical Instructions and the U.S. hazardous materials regulations (49 CFR). These batteries are not subject to the dangerous goods regulations provided they meet the requirements contained in the following special provisions

Regulatory Body	Special Provisions
ADR	Not regulated
IMDG	Not regulated
UN	Not regulated
US DOT	49 CFR 172.102 Provision 130
IATA	A123 (59th Edition)
ICAO	Not regulated

All Maxell alkaline batteries are packed in such a way to prevent short circuits or the generation dangerous quantities of heat and meet the special provisions listed above. In addition, the IATA Dangerous Goods Regulations and ICAO Technical Instructions require the words “not restricted” and the Special Provision number A123 be provided on the air waybill, when an air waybill is issued.

- (a) UN number: N/A
- (b) UN proper shipping name: N/A
- (c) Transport hazard class(es) : N/A
- (d) Packing group, if applicable: N/A
- (e) Environmental hazards (e.g., Marine pollutant (Yes/No)) No.
- (f) Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

The product can be treated as ordinary goods in transportation;
Products in bulk shall be packed in inner packaging in such a manner that can prevent movement or short-circuit effectively.

- (g) Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises

Avoid high-temperature, high-humidity condition.

15. Regulatory information (Non-mandatory)

Safety, health and environmental regulations specific for the product in question.



The product is complying with the environmental requirements in EU BATTERY DIRECTIVE (2006/66/EC) and its amendments 2013/56/EU.

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

The date of preparation of the SDS or the last change to it

This Safety Date Sheets (SDS) is issued on 1 Jan, 2018 according to requirements of the USA's OSHA Standard 1910.1200 App D.

If you want further information, please contact Maxell sales representative.





SAFETY DATA SHEET

Issuing Date January 5, 2015

Revision Date New

Revision Number 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Clorox Commercial Solutions® Clorox® Bleach-Free Hand Sanitizer

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Hand sanitizer

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address

Clorox Professional Products Company
1221 Broadway
Oakland, CA 94612

Phone: 1-510-271-7000

Emergency telephone number

Emergency Phone Numbers For Medical Emergencies call: 1-800-446-1014
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION


Classification

This product is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Flammable liquids	Category 2
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GHS Label elements, including precautionary statements

Emergency Overview

Signal word	Danger		
Hazard statements	Highly flammable liquid and vapor		
			
Appearance	Clear, colorless	Physical State	Thin liquid
			Odor Alcohol

Precautionary Statements - Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Keep container tightly closed.
 Ground/bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/lighting equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Wear eye protection such as safety glasses.

Precautionary Statements - Response

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
 In case of fire: Use dry chemical, carbon dioxide (CO₂), foam, or water spray to extinguish.

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool.

Precautionary Statements - Disposal

Dispose of contents in accordance with all applicable federal, state, and local regulations.

Hazards not otherwise classified (HNOC)

Inhalation of high concentrations of vapor or mist may cause irritation of the respiratory tract, headaches, dizziness, nausea, vomiting, and malaise. Ingestion may cause central nervous system depression, gastrointestinal irritation, nausea, vomiting, and diarrhea.

Unknown Toxicity

0.2% of the mixture consists of ingredient(s) of unknown toxicity

Other information

May cause slight eye irritation.
 Toxic to aquatic life with long lasting effects.

Interactions with Other Chemicals

Can react with strong oxidizers, inorganic acids, and halogens.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %	Trade Secret
Ethanol	64-17-5	60 - 75	*
Isopropyl alcohol	67-63-0	5 - 10	*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General Advice	Show this safety data sheet to the doctor in attendance.
Eye Contact	Hold eye open and rinse slowly and gently with water for 15–20 minutes. If present, remove contact lenses after the first 5 minutes of rinsing, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
Skin Contact	Not applicable.
Inhalation	Move to fresh air. If breathing problems develop, call a doctor.
Ingestion	Drink a glassful of water. Call a doctor or poison control center.
Protection of First-aiders	Remove all ignition sources. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects	May cause slight eye irritation.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical, carbon dioxide (CO₂), foam, or water spray.

Unsuitable Extinguishing Media

Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

Alcohol flames may not be readily visible. Vapors are heavier than air and may travel to source of ignition and flash back. Vapors may form explosive mixtures with air.

Hazardous Combustion Products

Oxides of carbon.

Explosion Data

Sensitivity to Mechanical Impact	No.
Sensitivity to Static Discharge	Yes.

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. Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment as required. Eliminate all potential sources of ignition. Take precautionary measures against static discharges.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental Precautions Prevent entry into surface water or sanitary sewers. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Eliminate all potential sources of ignition, and ventilate area. Absorb and containerize. Do not flush into surface water or sanitary sewer system.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin, and clothing. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Store in accordance all applicable regulations and fire codes. Keep containers tightly closed in a cool, well-ventilated place away from heat, sparks, open flames, and hot surfaces.

Incompatible Products Strong oxidizers, inorganic acids, and halogens.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³	IDLH: 3300 ppm 10% LEL TWA: 1000 ppm TWA: 1900 mg/m ³

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection	None required for consumer use. If splashes are likely to occur, wear safety glasses.
Skin and Body Protection	No special protective equipment required.
Respiratory Protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State	Thin liquid	Odor	Alcohol
Appearance	Clear	Odor Threshold	No information available
Color	colorless		
<u>Property</u>	<u>Values</u>	<u>Remarks/ Method</u>	
pH	6 - 9	None known	
Melting/freezing point	No data available	None known	
Boiling point / boiling range	No data available	None known	
Flash Point	~21°C (closed cup)	None known	
Evaporation rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limits in Air			
Upper flammability limit	No data available	None known	
Lower flammability limit	No data available	None known	
Vapor pressure	No data available	None known	
Vapor density	No data available	None known	
Specific Gravity	~0.84	None known	
Water Solubility	Complete	None known	
Solubility in other solvents	No data available	None known	
Partition coefficient: n-octanol/water	No data available	None known	
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Kinematic viscosity	No data available	None known	
Dynamic viscosity	No data available	None known	
Explosive Properties	Not explosive		
Oxidizing Properties	No data available		
<u>Other Information</u>			
Softening Point	No data available		
VOC Content (%)	No data available		
Particle Size	No data available		
Particle Size Distribution	No data available		

10. STABILITY AND REACTIVITY

Reactivity

Can react with strong oxidizers, inorganic acids, and halogens.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None known.

Conditions to avoid

Keep away from heat, sparks, open flames, and hot surfaces.

Incompatible materials

Strong oxidizers, inorganic acids, and halogens.

Hazardous Decomposition Products

None known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Inhalation of high concentrations of vapor or mist may cause irritation of the respiratory tract, headaches, dizziness, nausea, vomiting, and malaise.
Eye Contact	May cause slight irritation.
Skin Contact	Prolonged or repeated use may cause dryness and/or slight irritation.
Ingestion	Ingestion may cause central nervous system depression, gastrointestinal irritation, nausea, vomiting, and diarrhea.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethanol 64-17-5	-	-	125 mg/L (Rat, 4 h)
Isopropyl alcohol 67-63-0	4.4 g/kg (Rat)	12.9 g/kg (Rabbit)	16000 (Rat, 8 h)

Information on toxicological effects

Symptoms May cause slight redness and tearing of eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethanol 64-17-5	A3	Group 1	Known	X
Isopropyl alcohol 67-63-0	-	Group 3	-	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans; Group 3 - Not Classifiable as to Carcinogenicity in Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive Toxicity Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage.

STOT - single exposure No information available.

STOT - repeated exposure No information available.
Chronic Toxicity Contains a known or suspected carcinogen. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage. Contains a known or suspected reproductive toxin. Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects. Repeated abuse can have long-term health effects.

Target Organ Effects Eyes, blood, central nervous system (CNS), liver, reproductive system, respiratory system.

Aspiration Hazard Not an aspiration hazard.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)

49.6 g/kg

ATEmix (inhalation-dust/mist)

184 mg/l

ATEmix (inhalation-vapor)

627 ATEmix

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Ethanol 64-17-5		LC50: 12.0 - 16.0 mL/L (96 h static) <i>Oncorhynchus mykiss</i> LC50: 13400 - 15100 mg/L (96 h flow-through) <i>Pimephales promelas</i> LC50: > 100 mg/L (96 h static) <i>Pimephales promelas</i>	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min	LC50: 9268 - 14221 mg/L (48 h) <i>Daphnia magna</i> EC50: 10800 mg/L (24 h) <i>Daphnia magna</i> EC50: 2 mg/L (48 h Static) <i>Daphnia magna</i>
Isopropyl alcohol 67-63-0	96h EC50: > 1000 mg/L (<i>Desmodesmus subspicatus</i>) 72h EC50: > 1000 mg/L (<i>Desmodesmus subspicatus</i>)	96h LC50: = 9640 mg/L (<i>Pimephales promelas</i>) 96h LC50: = 11130 mg/L (<i>Pimephales promelas</i>) 96h LC50: > 1400000 µg/L (<i>Lepomis macrochirus</i>)		48h EC50: 13299 mg/L
Glycerin 56-81-5		LC50: 51 - 57 mL/L (96 h static) <i>Oncorhynchus mykiss</i>		EC50: > 500 mg/L (24 h) <i>Daphnia magna</i>

Persistence and Degradability

No information available.

Bioaccumulation

Chemical Name	Log Pow
Ethanol 64-17-5	-0.32
Isopropyl alcohol 67-63-0	0.05

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Dispose of in accordance with all applicable federal, state, and local regulations.

Contaminated Packaging

Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

<u>DOT</u>	Limited quantity.
<u>TDG</u>	
UN-No	UN1170
Proper Shipping Name	ETHANOL
Hazard Class	3
Packing Group	II
Description	UN1170 ETHANOL, 3, II
<u>ICAO</u>	
UN-No	UN1170
Proper Shipping Name	ETHANOL
Hazard Class	3
Packing Group	II
Description	UN1170 ETHANOL, 3, II
<u>IATA</u>	
UN-No	UN1170
Proper Shipping Name	ETHANOL
Hazard Class	3
Packing Group	II
Description	UN1170 ETHANOL, 3, II
<u>IMDG/IMO</u>	
UN-No	UN1170
Proper Shipping Name	ETHANOL
Hazard Class	3
Packing Group	II
EmS No.	F-E, S-D
Description	UN1170, ETHANOL, 3, II, FP 21C

15. REGULATORY INFORMATION

Chemical Inventories

TSCA	All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.
DSL/NDSL	All components are on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

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	No
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals. Ethyl alcohol is only a considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage.

Chemical Name	California Proposition 65
Ethanol 64-17-5	Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Ethanol 64-17-5		X			
Isopropyl alcohol 67-63-0	X	X	X	X	
Glycerin 56-81-5	X	X	X	X	

International Regulations

Canada

WHMIS Hazard Class

B2 - Flammable liquid



16. OTHER INFORMATION

