SAFETY DATA SHEET

1. Identification

Product identifier: CLEANER DISINFECTANT BATHROOM CLEANER

Other means of identification
SDS number: RE1000008403

Recommended restrictions
Product Use: Disinfectant
Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name:	CLAIRE MANUFACTURING COMPANY
Address:	1000 Integram Dr Pacific, MO 63069
Telephone:	1-630-543-7600
Fax:	

Emergency telephone number: 1-866-836-8855

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable aerosol	Category 1

Health Hazards

Serious Eye Damage/Eye Irritation	Category 2A

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement: Extremely flammable aerosol.
Causes serious eye irritation.

Precautionary Statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage: Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Ethanol, 2-butoxy-	111-76-2	1 - <5%
Butane	106-97-8	1 - <5%
Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt (1:4)	64-02-8	1 - <5%
1-Hexadecanamine, N,N-dimethyl-, N-oxide	7128-91-8	1 - <3%
2-Propanol	67-63-0	1 - <5%
Propane	74-98-6	0.1 - <1%
Sulfuric acid monododecyl ester sodium salt (1:1)	151-21-3	0.1 - <1%
Sodium hydroxide (Na(OH))	1310-73-2	0.1 - <1%
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides	85409-23-0	0.1 - <0.25%
Ammonium hydroxide ((NH4)(OH))	1336-21-6	0 - <0.1%
Acetic acid, phenylmethyl ester	140-11-4	0 - <0.1%
Hydrogen peroxide (H2O2)	7722-84-1	0 - <0.1%
Benzene, 1,1'-oxybis-	101-84-8	0 - <0.1%
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	128-37-0	0 - <0.1%

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

4. First-aid measures

Ingestion: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

Inhalation:	Move to fresh air.
Skin Contact:	Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.
Eye contact:	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Most important symptoms/effects, acute and delayed

Symptoms:	No data available.
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	No data available.

5. Fire-fighting measures

General Fire Hazards:	Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media:	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical:	Vapors may travel considerable distance to a source of ignition and flash back.

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	No data available.
Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind.
Methods and material for containment and cleaning up:	Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

Notification Procedures: Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Avoid contact with eyes. Wash hands thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.

Conditions for safe storage, including any incompatibilities: Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Aerosol Level 1

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values		Source
Ethanol, 2-butoxy-	TWA	20 ppm		US. ACGIH Threshold Limit Values (2008)
	TWA	25 ppm	120 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	5 ppm	24 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	50 ppm	240 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA PEL	20 ppm	97 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	TWA	25 ppm	120 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	AN ESL		760 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL		3,700 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		2,900 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		600 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Butane	REL	800 ppm	1,900 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	800 ppm	1,900 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	1,000 ppm		US. ACGIH Threshold Limit Values (03 2018)
	TWA	800 ppm	1,900 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	AN ESL		3,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL		7,100 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)

	TWA PEL	800 ppm	1,900 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	ST ESL		66,000 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		28,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
2-Propanol	REL	400 ppm	980 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	400 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	500 ppm	1,225 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	500 ppm	1,225 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	TWA	400 ppm	980 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	PEL	400 ppm	980 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	400 ppm	980 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	500 ppm	1,225 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	AN ESL		200 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		2,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	STEL	500 ppm	1,225 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	200 ppm		US. ACGIH Threshold Limit Values (2008)
	TWA PEL	400 ppm	980 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	AN ESL		492 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		4,920 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Propane	REL	1,000 ppm	1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	1,000 ppm	1,800 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA PEL	1,000 ppm	1,800 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	TWA	1,000 ppm	1,800 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	TWA	1,000 ppm	1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Sodium hydroxide (Na(OH))	Ceiling		2 mg/m3	US. ACGIH Threshold Limit Values (2008)
	Ceiling		2 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	Ceil_Time		2 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL		2 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	Ceiling		2 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	Ceiling		2 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
Sodium hydroxide (Na(OH)) - Particulate.	AN ESL		2 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)

	ST ESL		20 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Ammonium hydroxide ((NH4)(OH))	STEL	35 ppm		US. ACGIH Threshold Limit Values (2008)
	TWA	25 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	35 ppm	27 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	REL	25 ppm	18 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	50 ppm	35 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	35 ppm	27 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA PEL	25 ppm	18 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	STEL	35 ppm	27 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	AN ESL		92 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		180 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Acetic acid, phenylmethyl ester	TWA	10 ppm		US. ACGIH Threshold Limit Values (2008)
	TWA PEL	10 ppm	61 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	ST ESL		100 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL		10 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		610 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL		61 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Hydrogen peroxide (H2O2)	REL	1 ppm	1.4 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	1 ppm	1.4 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	ST ESL		10 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	TWA	1 ppm	1.4 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	1 ppm		US. ACGIH Threshold Limit Values (2008)
	AN ESL		1.4 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		14 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL		1 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Hydrogen peroxide (H2O2) - as H2O2	TWA PEL	1 ppm	1.4 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
Hydrogen peroxide (H2O2)	PEL	1 ppm	1.4 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Benzene, 1,1'-oxybis- - Vapor.	STEL	2 ppm		US. ACGIH Threshold Limit Values (03 2018)

	TWA	1 ppm		US. ACGIH Threshold Limit Values (03 2018)
	PEL	1 ppm	7 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA PEL	1 ppm	7 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	REL	1 ppm	7 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	1 ppm	7 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Benzene, 1,1'-oxybis-	ST ESL		70 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL		7 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Benzene, 1,1'-oxybis- - Vapor.	TWA	1 ppm	7 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
Benzene, 1,1'-oxybis-	ST ESL		10 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL		1 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	TWA		10 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA		10 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl- - Inhalable fraction and vapor.	TWA		2 mg/m3	US. ACGIH Threshold Limit Values (2008)
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	REL		10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA PEL		10 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Ethanol, 2-butoxy- (Butoxyacetic acid (BAA), with hydrolysis: Sampling time: End of shift.)	200 mg/g (Creatinine in urine)	ACGIH BEL (03 2013)
2-Propanol (acetone: Sampling time: End of shift at end of work week.)	40 mg/l (Urine)	ACGIH BEL (03 2013)

Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

General information: Provide easy access to water supply and eye wash facilities. 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. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection:	No data available.
Other:	No data available.
Respiratory Protection:	In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
Hygiene measures:	Avoid contact with eyes. Observe good industrial hygiene practices. When using do not smoke.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	Spray Aerosol
Color:	No data available.
Odor:	No data available.
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	-104.44 °C
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	3,792.1165 - 5,171.068 hPa (20 °C)
Vapor density:	No data available.
Density:	No data available.
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity: No data available.

Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	No data available.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: ATEmix: 27,338.16 mg/kg

Dermal
Product: ATEmix: 13,752.58 mg/kg

Inhalation
Product: ATEmix: 412.37 mg/l
ATEmix : 103.09 mg/l

Repeated dose toxicity
Product: No data available.

Specified substance(s):
Ethanol, 2-butoxy- NOAEL (Rabbit(Female, Male), Dermal, 90 d): > 150 mg/kg Dermal Experimental result, Key study
NOAEL (Rat(Female), Oral, 90 d): < 82 mg/kg Oral Experimental result, Key

	study NOAEL (Rat(Female), Inhalation, 2 yr): < 31 ppm(m) Inhalation Experimental result, Key study
Butane	NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study
Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt (1:4)	NOAEL (Rat(Female, Male), Oral, 103 Weeks): >= 500 mg/kg Oral Read-across from supporting substance (structural analogue or surrogate), Key study LOAEL (Rat(Male), Inhalation, 1 - 5 d): 30 mg/m3 Inhalation Read-across from supporting substance (structural analogue or surrogate), Key study
2-Propanol	NOAEL (Rat, Inhalation, >= 104 Weeks): 5,000 ppm(m) Inhalation Experimental result, Key study
Propane	NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study
Sulfuric acid monododecyl ester sodium salt (1:1)	NOAEL (Rat(Female, Male), Oral, 13 Weeks): 482 mg/kg Oral Experimental result, Supporting study NOAEL (Rat(Female, Male), Oral, 2 yr): 0.15 %(m) Oral Experimental result, Supporting study
Acetic acid, phenylmethyl ester	NOAEL (Rat(Male), Oral, 13 Weeks): 900 mg/kg Oral Experimental result, Supporting study NOAEL (Rat(Female), Oral, 13 Weeks): 480 mg/kg Oral Experimental result, Supporting study
Hydrogen peroxide (H2O2)	LOAEL (Rat(Male), Other route of exposure (excluding dermal, oral and inhalation), 12 Weeks): 56.2 mg/kg Other route of exposure (excluding dermal, oral and inhalation) Not specified, Supporting study LOAEL (Rat, Inhalation, 6 Weeks): 67 ppm(m) Inhalation Not specified, Supporting study LOAEL (Rat(Female, Male), Other route of exposure (excluding dermal, oral and inhalation), 6 Months): 0.005 mg/kg Other route of exposure (excluding dermal, oral and inhalation) Not specified, Supporting study LOAEL (Rat(Female, Male), Inhalation): 14.6 mg/m3 Inhalation Experimental result, Key study LOAEL (Mouse(Male), Oral, 40 d): 0.5 %(m) Oral Not specified, Supporting study
Benzene, 1,1'-oxybis-	NOAEL (Rat(Female, Male), Dermal, 13 Weeks): 100 mg/kg Dermal Experimental result, Key study NOAEL (Rat(Male), Oral, 13 Weeks): 301 mg/kg Oral Experimental result, Key study
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	NOAEL (Rat(Male), Oral, 1.25 - 22.75 Months): 25 mg/kg Oral Experimental result, Key study

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

Ethanol, 2-butoxy-	in vivo (Rabbit): Irritating Experimental result, Key study
Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt (1:4)	in vivo (Rabbit): Not irritant Experimental result, Key study
2-Propanol	in vivo (Rabbit): Not Classified Experimental result, Key study
Sulfuric acid monododecyl ester sodium salt (1:1)	in vivo (Rabbit): Irritating Experimental result, Key study
Acetic acid, phenylmethyl ester	in vivo (Rabbit): Not irritant Experimental result, Key study
Hydrogen peroxide (H2O2)	in vivo (Rabbit): Category 2 Experimental result, Key study in vivo (Rabbit): Not irritant Experimental result, Key study in vivo (Rabbit): Category 2 Experimental result, Key study in vivo (Rabbit): Category 2 Experimental result, Key study in vivo (Rabbit): Category 2 Experimental result, Key study
Benzene, 1,1'-oxybis-	in vivo (Rabbit): Not irritant Experimental result, Key study
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	in vivo (Rabbit): Not irritant Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Ethanol, 2-butoxy-	Rabbit, 24 - 72 hrs: Irritating
2-Propanol	Rabbit, 1 d: Irritating.
Sulfuric acid monododecyl ester sodium salt (1:1)	Rabbit, 24 - 72 hrs: Irritating.
Sodium hydroxide (Na(OH))	Corrosive Rabbit, 2 d: 10% Sodium Hydroxide- Category 1; 0.5% Sodium Hydroxide- Slightly irritating to eyes

Hydrogen peroxide (H2O2)	Rabbit, 24 hrs: Category 2A Rabbit, 24 hrs: Category 2A Rabbit, 24 hrs: Category 2A Rabbit: Category 2A Rabbit, 72 hrs: Category 2A Rabbit, 24 hrs: Category 2A Rabbit, 24 - 72 hrs: Category 2A Rabbit: Category 2A Rabbit: Category 2A Rabbit: Category 2A Rabbit: Category 2A Rabbit: Category 2A Rabbit, 24 hrs: Category 2A Rabbit, 72 hrs: Category 2A Rabbit, 72 hrs: Category 2A Rabbit, 72 hrs: Category 2A Rabbit, 24 - 72 hrs: Not irritating Rabbit, 24 hrs: Category 2A Rabbit: Category 2A Rabbit: Category 2A Rabbit: Category 2A
Benzene, 1,1'-oxybis-	Rabbit, 48 - 72 hrs: Irritating.
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	Rabbit, 24 - 72 hrs: Not irritating

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

Ethanol, 2-butoxy-	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt (1:4)	Skin sensitization:, in vivo (Guinea pig): Non sensitising
2-Propanol	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Sulfuric acid monododecyl ester sodium salt (1:1)	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Acetic acid, phenylmethyl ester	Skin sensitization:, in vivo (Guinea pig): Sensitising
Hydrogen peroxide (H2O2)	Skin sensitization: (Human): Non sensitising Skin sensitization:, in vivo (Guinea pig): Non sensitising
Benzene, 1,1'-oxybis-	Skin sensitization:, in vivo (Guinea pig): Non sensitising Skin sensitization:, in vivo (Human): Non sensitising
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	Skin sensitization:, in vivo (Human): Non sensitising Skin sensitization:, in vivo (Guinea pig): Non sensitising

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):
No carcinogenic components identified

Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity
Product: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):

Ethanol, 2-butoxy-	LC 50 (Oncorhynchus mykiss, 96 h): 1,474 mg/l Experimental result, Key study
Butane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Glycine, N,N'-1,2-	NOAEL (Lepomis macrochirus, 96 h): 88 mg/l Experimental result, Key

ethanediylbis[N-(carboxymethyl)-, sodium salt (1:4)	study LC 50 (Lepomis macrochirus, 96 h): 121 mg/l Experimental result, Key study
2-Propanol	LC 50 (Pimephales promelas, 96 h): 9,640 mg/l Experimental result, Key study
Propane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Sulfuric acid monododecyl ester sodium salt (1:1)	LC 50 (Pimephales promelas, 96 h): 29 mg/l Experimental result, Key study
Sodium hydroxide (Na(OH))	LC 50 (Western mosquitofish (Gambusia affinis), 96 h): 125 mg/l Mortality LC 50 (Gambusia affinis, 96 h): < 180 mg/l Experimental result, Supporting study
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl] dimethyl, chlorides	EC 50 (96 h): < 10 mg/l
Ammonium hydroxide ((NH4)(OH))	LC 50 (Fathead minnow (Pimephales promelas), 24 h): 17 mg/l Mortality LC 50 (Goldfish (Carassius auratus), 24 h): 17 mg/l Mortality LC 50 (Western mosquitofish (Gambusia affinis), 24 h): 18 mg/l Mortality LC 50 (Channel catfish (Ictalurus punctatus), 24 h): 2.36 mg/l Mortality LC 50 (Fathead minnow (Pimephales promelas), 24 h): 23.02 mg/l Mortality
Acetic acid, phenylmethyl ester	LC 50 (Medaka, high-eyes (Oryzias latipes), 96 h): 3.48 - 4.6 mg/l Mortality LC 50 (Oryzias latipes, 96 h): 4 mg/l Other, Key study
Hydrogen peroxide (H2O2)	LC 50 (Jack Mackerel (Trachurus japonicus), 24 h): 89 mg/l Mortality LC 50 (Chameleon goby (Tridentiger trigonocephalus), 24 h): 155 mg/l Mortality LC 100 (Leuciscus idus, 72 h): 40 mg/l Not specified, Supporting study LC 0 (Oncorhynchus mykiss, 60 min): 500 mg/l Not specified, Supporting study LC 100 (Oncorhynchus tshawytscha, 1 h): 250 mg/l Not specified, Supporting study
Benzene, 1,1'-oxybis-	LC 50 (Oncorhynchus mykiss, 96 h): 4.2 mg/l Experimental result, Key study
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	LC 50 (Pimephales promelas, 96 h): 0.363 mg/l

Aquatic Invertebrates

Product:	No data available.
Specified substance(s):	
Ethanol, 2-butoxy-	EC 50 (Daphnia magna, 48 h): 1,550 mg/l Experimental result, Key study
Butane	LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt (1:4)	EC 50 (Daphnia magna, 24 h): 610 mg/l Experimental result, Key study

2-Propanol	LC 50 (Daphnia magna, 24 h): > 10,000 mg/l Experimental result, Key study
Sulfuric acid monododecyl ester sodium salt (1:1)	LC 50 (Daphnia magna, 48 h): 1.8 mg/l Experimental result, Not specified
Sodium hydroxide (Na(OH))	EC 50 (Water flea (Ceriodaphnia dubia), 48 h): 34.59 - 47.13 mg/l Intoxication
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl] dimethyl, chlorides	EC 50 : 0.015 mg/l
Ammonium hydroxide ((NH4)(OH))	LC 50 (Water flea (Daphnia magna), 25 h): 60 mg/l Mortality LC 50 (Water flea (Daphnia magna), 50 h): 32 mg/l Mortality LC 50 (Water flea (Daphnia magna), 100 h): 20 mg/l Mortality LC 50 (Water flea (Ceriodaphnia dubia), 48 h): > 0 - 10 mg/l Mortality
Acetic acid, phenylmethyl ester	EC 50 (Daphnia magna, 24 h): 25 mg/l Experimental result, Key study EC 50 (Daphnia magna, 48 h): 17 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): 10 mg/l Experimental result, Key study
Hydrogen peroxide (H2O2)	EC 50 (Dreissena polymorpha, 480 h): 6 mg/l Not specified, Supporting study EC 50 (Gammarus sp., 96 h): 4.42 mg/l Not specified, Supporting study LC 50 (Daphnia pulex, 48 h): 2.4 mg/l Experimental result, Key study EC 50 (Physa sp., 96 h): 17.7 mg/l Not specified, Supporting study NOAEL (Lepeophtheirus salmonis, 20 min): < 500 mg/l Not specified, Supporting study
Benzene, 1,1'-oxybis-	LC 50 (Daphnia magna, 48 h): 1.7 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): 1 mg/l Experimental result, Key study
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	EC 50 (Daphnia magna, 48 h): 0.61 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): 0.15 mg/l Experimental result, Key study

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.

Specified substance(s):

Ethanol, 2-butoxy-	NOAEL (Danio rerio): > 100 mg/l Experimental result, Key study
Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt (1:4)	NOAEL (Danio rerio): >= 25.7 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study
Sulfuric acid monododecyl ester sodium salt (1:1)	NOAEL (Pimephales promelas): > 1.357 mg/l Experimental result, Key study
Quaternary ammonium compounds, C12-14-	NOEC (28 d): 0.032 mg/l

alkyl[(ethylphenyl)methyl] dimethyl, chlorides

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Ethanol, 2-butoxy-	EC 50 (Daphnia magna): 297 mg/l Experimental result, Key study EC 10 (Daphnia magna): 134 mg/l Experimental result, Key study
Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt (1:4)	NOAEL (Daphnia magna): 25 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study
Sulfuric acid monododecyl ester sodium salt (1:1)	NOAEL (Ceriodaphnia dubia): 1.2 mg/l Experimental result, Key study
Hydrogen peroxide (H2O2)	NOAEL (Daphnia magna): 0.63 mg/l Experimental result, Key study LOAEL (Daphnia magna): 1.25 mg/l Experimental result, Key study NOAEL (Aquatic arthropod): 1.62 mg/l Experimental result, Supporting study
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	NOAEL (Daphnia magna): 0.316 mg/l Experimental result, Key study

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s):

Sulfuric acid monododecyl ester sodium salt (1:1)	EC 50 (Green algae (Selenastrum capricornutum), 48 h): 706 - 5,918 mg/l Mortality

Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s):

Ethanol, 2-butoxy-	90.4 % Detected in water. Experimental result, Key study
Butane	100 % (385.5 h) Detected in water. Experimental result, Key study 50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study
Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt (1:4)	90 - 100 % (28 d) Detected in water. Read-across from supporting substance (structural analogue or surrogate), Weight of Evidence study
2-Propanol	53 % (5 d) Detected in water. Experimental result, Key study
Propane	100 % (385.5 h) Detected in water. Experimental result, Key study 50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study

Sulfuric acid monododecyl ester sodium salt (1:1)	94 % (28 d) Detected in water. Experimental result, Supporting study 95 % Detected in water. Experimental result, Key study
Acetic acid, phenylmethyl ester	100 % (28 d) Detected in water. Experimental result, Key study
Hydrogen peroxide (H2O2)	60 % Detected in water. Experimental result, Supporting study > 99 % (30 min) Detected in water. Experimental result, Key study 97 % Detected in water. Experimental result, Supporting study 80 - 99 % (30 min) Detected in water. Experimental result, Supporting study
Benzene, 1,1'-oxybis-	76 % Detected in water. Experimental result, Key study
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	4.5 % (28 d) Detected in water. Experimental result, Key study

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt (1:4)	Lepomis macrochirus, Bioconcentration Factor (BCF): 1.8 Aquatic sediment Experimental result, Key study
Sulfuric acid monododecyl ester sodium salt (1:1)	Carp (Cyprinus carpio), Bioconcentration Factor (BCF): 50 (Flow through)
Acetic acid, phenylmethyl ester	Bioconcentration Factor (BCF): 8 Aquatic sediment Estimated by calculation, Key study
Benzene, 1,1'-oxybis-	Oncorhynchus mykiss, Bioconcentration Factor (BCF): 200 Aquatic sediment Experimental result, Key study
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	Cyprinus carpio, Bioconcentration Factor (BCF): 330 - 1,800 Aquatic sediment Experimental result, Key study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	Log Kow: 5.11 - 5.2 No Experimental result, Weight of Evidence study

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Ethanol, 2-butoxy-	No data available.
Butane	No data available.
Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt (1:4)	No data available.
1-Hexadecanamine, N,N-dimethyl-, N-oxide	No data available.
2-Propanol	No data available.
Propane	No data available.
Sulfuric acid monododecyl ester sodium salt (1:1)	No data available.
Sodium hydroxide (Na(OH))	No data available.
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides	No data available.
Ammonium hydroxide ((NH4)(OH))	No data available.
Acetic acid, phenylmethyl ester	No data available.
Hydrogen peroxide (H2O2)	No data available.
Benzene, 1,1'-oxybis-	No data available.
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	No data available.

Other adverse effects: No data available.

13. Disposal considerations

Disposal instructions: Wash before disposal. Dispose to controlled facilities.

Contaminated Packaging: No data available.

14. Transport information

DOT

UN Number:	UN 1950
UN Proper Shipping Name:	Aerosols, flammable
Transport Hazard Class(es)	
Class:	2.1
Label(s):	–
Packing Group:	II
Marine Pollutant:	No
Environmental Hazards:	No
Marine Pollutant	No

Special precautions for user: Not regulated.

IMDG

UN Number: UN 1950
UN Proper Shipping Name: Aerosols, flammable
Transport Hazard Class(es)
Class: 2
Label(s): –
EmS No.:
Packing Group: –

Environmental Hazards: No
Marine Pollutant No

Special precautions for user: Not regulated.

IATA

UN Number: UN 1950
Proper Shipping Name: Aerosols, flammable
Transport Hazard Class(es):
Class: 2.1
Label(s): –
Packing Group: –

Environmental Hazards: No
Marine Pollutant No

Special precautions for user: Not regulated.

15. Regulatory information

US Federal Regulations

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

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity	Reportable quantity
Butane	lbs. 100
2-Propanol	lbs. 100
Propane	lbs. 100
Sodium hydroxide (Na(OH))	lbs. 1000
Ammonium hydroxide ((NH4)(OH))	lbs. 1000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Fire Hazard
Immediate (Acute) Health Hazards
Flammable aerosol
Serious Eye Damage/Eye Irritation

SARA 302 Extremely Hazardous Substance

Chemical Identity	Reportable quantity	Threshold Planning Quantity
Hydrogen peroxide (H2O2)	lbs. 1000	lbs. 1000

SARA 304 Emergency Release Notification

Chemical Identity	Reportable quantity
Ethanol, 2-butoxy-	
Butane	lbs. 100
2-Propanol	lbs. 100
Propane	lbs. 100
Sodium hydroxide (Na(OH))	lbs. 1000
Ammonium hydroxide ((NH4)(OH))	lbs. 1000
Hydrogen peroxide (H2O2)	

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity
Hydrogen peroxide (H2O2)	lbs
Ethanol, 2-butoxy-	10000 lbs
Butane	10000 lbs
Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt (1:4)	10000 lbs
1-Hexadecanamine, N,N-dimethyl-, N-oxide	10000 lbs
2-Propanol	10000 lbs
Propane	10000 lbs
Sulfuric acid monododecyl ester sodium salt (1:1)	10000 lbs
Sodium hydroxide (Na(OH))	10000 lbs
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides	10000 lbs
Ammonium hydroxide ((NH4)(OH))	10000 lbs
Acetic acid, phenylmethyl ester	10000 lbs
Benzene, 1,1'-oxybis-	10000 lbs
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	10000 lbs

SARA 313 (TRI Reporting)

Chemical Identity	Reporting threshold for other users	Reporting threshold for manufacturing and processing
Ethanol, 2-butoxy-	N230 lbs	N230 lbs.
2-Propanol	lbs	lbs.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

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

Chemical Identity
Ethanol, 2-butoxy-
Butane
2-Propanol

US. Massachusetts RTK - Substance List

Chemical Identity
Glycine, N,N-bis(carboxymethyl)-, sodium salt (1:3)
Hydrogen peroxide (H2O2)

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
Ethanol, 2-butoxy-
Butane
2-Propanol

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

Inventory Status:

Australia AICS:	Not in compliance with the inventory.
Canada DSL Inventory List:	Not in compliance with the inventory.
EINECS, ELINCS or NLP:	Not in compliance with the inventory.
Japan (ENCS) List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory.
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	Not in compliance with the inventory.
US TSCA Inventory:	Not in compliance with the inventory.
New Zealand Inventory of Chemicals:	Not in compliance with the inventory.
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.
Mexico INSQ:	Not in compliance with the inventory.
Ontario Inventory:	Not in compliance with the inventory.
Taiwan Chemical Substance Inventory:	Not in compliance with the inventory.

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

Issue Date:	04/24/2019
Revision Information:	No data available.
Version #:	1.0
Further Information:	FIFRA: This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use.

Disclaimer:

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.