



# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** CLAIRE AMMONIATED GLASS CLEANER

**Other means of identification**

**SDS number:** RE1000000628

**Recommended restrictions**

**Product use:** Cleaner

**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

**Label Elements**

**Hazard Symbol:**



**Signal Word:** Danger

**Hazard Statement:** Extremely flammable aerosol.

**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.

**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 (%)*
Butane	106-97-8	1 - <5%
Ethanol, 2-butoxy-	111-76-2	1 - <5%
Propane	74-98-6	1 - <5%
Ethanol	64-17-5	0.1 - <1%
Sodium nitrite, Nitrous acid, sodium salt (1:1)	7632-00-0	0.1 - <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:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/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:** Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.

**Notification Procedures:** ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.

**Environmental Precautions:** Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

**7. Handling and storage**

**Precautions for safe 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
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)
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)
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)
Ethanol	TWA PEL	1,000 ppm	1,900 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	REL	1,000 ppm	1,900 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	1,000 ppm	1,900 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	1,000 ppm	1,900 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	1,000 ppm	1,900 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	1,000 ppm		US. ACGIH Threshold Limit Values (2009)
	AN ESL		1,880 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		10,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL		1,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		18,800 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)

**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)

**Appropriate Engineering Controls**

No data available.

**Individual protection measures, such as personal protective equipment**

**General information:** Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

**Eye/face protection:** Wear goggles/face shield.

**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:** When using do not smoke. Observe good industrial hygiene practices.

## 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:** 3,447.3786 - 4,826.3301 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: 37,600.14 mg/kg

**Dermal**

**Product:** ATEmix: 23,652.48 mg/kg

**Inhalation**

**Product:** ATEmix: 709.22 mg/l  
ATEmix : 177.3 mg/l

**Repeated dose toxicity**

**Product:** No data available.

**Specified substance(s):**

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
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
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



Ethanol Experimental result, Key study  
NOAEL (Rat(Male), Oral, 7 - 14 Weeks): 10 %(m) Oral Experimental result, Key study

Sodium nitrite, Nitrous acid, sodium salt (1:1) NOAEL (Rat(Male), Oral, 2 yr): 10 mg/kg Oral Experimental result, Supporting study  
LOAEL (Rat(Male), Oral, 14 Weeks): 115 mg/kg Oral Experimental result, Weight of Evidence study

**Skin Corrosion/Irritation**

**Product:** No data available.

**Specified substance(s):**

Ethanol, 2-butoxy- in vivo (Rabbit): Irritating Experimental result, Key study

Ethanol in vivo (Rabbit): Not irritant Experimental result, Key study

Sodium nitrite, Nitrous acid, sodium salt (1:1) in vivo (Rabbit): Not irritant Experimental result, Weight of Evidence study

**Serious Eye Damage/Eye Irritation**

**Product:** No data available.

**Specified substance(s):**

Ethanol, 2-butoxy- Rabbit, 24 - 72 hrs: Irritating

Ethanol Rabbit, 1 - 24 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  
Ethanol 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.

**Specified substance(s):**  
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):**

Butane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Ethanol, 2-butoxy-	LC 50 (Oncorhynchus mykiss, 96 h): 1,474 mg/l Experimental result, Key study
Propane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Ethanol	LC 50 (Pimephales promelas, 96 h): 15.3 g/l Experimental result, Key study
Sodium nitrite, Nitrous acid, sodium salt (1:1)	LC 50 (Oncorhynchus mykiss, 96 h): 0.54 - 26.3 mg/l Experimental result, Key study

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

Butane	LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
Ethanol, 2-butoxy-	EC 50 (Daphnia magna, 48 h): 1,550 mg/l Experimental result, Key study
Ethanol	LC 50 (Ceriodaphnia dubia, 48 h): 5,012 mg/l Experimental result, Key study
Sodium nitrite, Nitrous acid, sodium salt (1:1)	EC 50 (Daphnia magna, 48 h): 15.4 mg/l Experimental result, Key study

**Chronic hazards to the aquatic environment:**





#### Fish

<b>Product:</b>	No data available.
<b>Specified substance(s):</b>	
Ethanol, 2-butoxy-	NOAEL (Danio rerio): > 100 mg/l Experimental result, Key study
Ethanol	NOAEL (Oryzias latipes): 7,900 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study
Sodium nitrite, Nitrous acid, sodium salt (1:1)	NOAEL (Cyprinus carpio): 1.05 mg/l Experimental result, Key study

#### Aquatic Invertebrates

<b>Product:</b>	No data available.
<b>Specified substance(s):</b>	
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
Ethanol	LC 50 (Daphnia magna): 454 mg/l Experimental result, Key study NOAEL (Daphnia magna): 9.6 mg/l Experimental result, Key study
Sodium nitrite, Nitrous acid, sodium salt (1:1)	NOAEL (Penaeus monodon): 2 mg/l Experimental result, Key study EC 50 (Penaeus monodon): 114.9 mg/l Experimental result, Key study LC 50 (Penaeus monodon): > 95.6 mg/l Experimental result, Key study

#### Toxicity to Aquatic Plants

<b>Product:</b>	No data available.
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#### Persistence and Degradability

##### Biodegradation

<b>Product:</b>	No data available.
<b>Specified substance(s):</b>	
Butane	100 % (385.5 h) Detected in water. Experimental result, Key study 50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study
Ethanol, 2-butoxy-	90.4 % 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
Ethanol	95 % Detected in water. Experimental result, Key study

##### BOD/COD Ratio

<b>Product:</b>	No data available.
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#### Bioaccumulative potential

##### Bioconcentration Factor (BCF)

<b>Product:</b>	No data available.
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##### Specified substance(s):



Ethanol

Cyprinus carpio, Bioconcentration Factor (BCF): 4.5 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Supporting study

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Mobility in soil:** No data available.

**Known or predicted distribution to environmental compartments**

Butane No data available.  
Ethanol, 2-butoxy- No data available.  
Propane No data available.  
Ethanol No data available.  
Sodium nitrite, Nitrous acid, sodium salt (1:1) 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):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Butane	lbs. 100
Propane	lbs. 100
Ethanol	lbs. 100
Sodium nitrite, Nitrous acid, sodium salt (1:1)	lbs. 100

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Fire Hazard  
Flammable aerosol

#### SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

#### SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Butane	lbs. 100
Ethanol, 2-butoxy-	
Propane	lbs. 100
Ethanol	lbs. 100
Sodium nitrite, Nitrous acid, sodium salt (1:1)	lbs. 100

#### SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Butane	10000 lbs
Ethanol, 2-butoxy-	10000 lbs
Propane	10000 lbs
Ethanol	10000 lbs
Sodium nitrite, Nitrous acid, sodium salt (1:1)	10000 lbs

#### SARA 313 (TRI Reporting)

<u>Chemical Identity</u>	<u>Reporting threshold for other users</u>	<u>Reporting threshold for manufacturing and processing</u>



Ethanol, 2-butoxy-

N230 lbs

N230 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**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

1,6-Octadiene, 7-methyl-3- Carcinogenic. 03 2015  
methylene-

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

**Chemical Identity**

Butane  
Ethanol, 2-butoxy-  
Propane  
Ethanol

**US. Massachusetts RTK - Substance List**

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

**US. Pennsylvania RTK - Hazardous Substances**

**Chemical Identity**

Butane  
Ethanol, 2-butoxy-  
Propane

**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:	On or in compliance with the inventory
Canada DSL Inventory List:	On or 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:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or 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:	On or in compliance with the inventory
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory

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

<b>Issue Date:</b>	07/22/2019
<b>Revision Information:</b>	No data available.
<b>Version #:</b>	1.0
<b>Further Information:</b>	No data available.
<b>Disclaimer:</b>	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.