

### SECTION 1: Identification

#### 1.1. Product identifier

Product form : Mixture  
Product name : UltraClean  
Product group : Trade product

#### 1.2. Recommended use and restrictions on use

No additional information available

#### 1.3. Supplier

BioChem Systems, Inc.  
480 Wildwood Forest Drive  
Suite 400  
Spring, TX 77380  
1 (800) 777-7870

#### 1.4. Emergency telephone number

Emergency number : PERS - (800) 633-8253

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS CA)

Flammable aerosols, Category 1	H222	Extremely flammable aerosol.
Aerosol, Category 1	H280	Contains gas under pressure may explode if heated.
Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Skin sensitisation, Category 1	H317	May cause an allergic skin reaction.
Aspiration hazard, Category 1	H304	May be fatal if swallowed and enters airways.

#### 2.2. GHS Label elements, including precautionary statements

##### GHS CA labelling

Hazard pictograms (GHS CA) :



Signal word (GHS CA) : Danger

Hazard statements (GHS CA) : H222 - Extremely flammable aerosol.  
H280 - Contains gas under pressure may explode if heated.  
H304 - May be fatal if swallowed and enters airways.  
H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.

Precautionary statements (GHS CA) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P211 - Do not spray on an open flame or other ignition source.  
P251 - Do not pierce or burn, even after use.  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P280 - Wear protective gloves, protective clothing, chemical goggles, & face protection.  
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P331 - Do NOT induce vomiting.  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P405 - Store locked up.  
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS CA)

No data available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

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Prepared according to Canadian Hazardous Products Regulations (SOR/2015-17) (WHMIS 2015)

<b>3.2. Mixtures</b>			
<b>Name</b>	<b>Chemical name / Synonyms</b>	<b>Product identifier</b>	<b>%</b>
Terpenes and Terpenoids, sweet orange-oil	Orange oil terpenes / Orange oil, terpenes / Sweet orange oil terpenes / Terpenes and terpenoids, orange oil / Terpenes, orange oil / Orange, sweet, extract / Orange terpenes / Terpenes and terpenoids, orange-oil / Oils, sweet orange (terpenes and terpenoids) / Terpenes and terpenoids, sweet orange-oil	CAS-No.: 68647-72-3	80 – 100
Carbon Dioxide (as compressed gas)	-	CAS-No.: 124-38-9	3 – 7

## **SECTION 4: First-aid measures**

### **4.1. Description of first aid measures**

First-aid measures after inhalation	: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If breathing is difficult, supply oxygen. If breathing has stopped, give artificial respiration.
First-aid measures after skin contact	: IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.
First-aid measures after eye contact	: IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing if pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.
First-aid measures after ingestion	: IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.
First-aid measures general	: If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

### **4.2. Most important symptoms and effects (acute and delayed)**

Symptoms/effects	: May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness.
Symptoms/effects after inhalation	: May be fatal if swallowed and enters airways.
Symptoms/effects after skin contact	: May cause skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways.

### **4.3. Immediate medical attention and special treatment, if necessary**

Other medical advice or treatment	: No additional information available.
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## **SECTION 5: Fire-fighting measures**

### **5.1. Suitable extinguishing media**

Suitable extinguishing media	: Foam. Carbon dioxide. Dry chemical. Water fog.
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### **5.2. Unsuitable extinguishing media**

Unsuitable extinguishing media	: None known.
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### **5.3. Specific hazards arising from the hazardous product**

Fire hazard	: Extremely flammable aerosol.
Explosion hazard	: Heating may cause an explosion.
Reactivity in case of fire	: None known.
Hazardous decomposition products in case of fire	: Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon oxides and other organic compounds will be evolved when this material undergoes thermal degradation.

### **5.4. Special protective equipment and precautions for fire-fighters**

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment. Prevent human exposure to fire, fumes, smoke and products of combustion.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.
Precautionary measures fire	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

General measures	: Evacuate area. Keep upwind. Ventilate area. Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection. Use special care to avoid static electric charges. Avoid breathing fumes or vapours. No flames, no sparks. Eliminate all sources of ignition. Vapor may cause flash fires. Vapors are heavier than air and can travel long distances to ignition sources.
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### **6.2. Methods and materials for containment and cleaning up**

For containment	: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
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Methods for cleaning up : Eliminate ignition sources. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. This material and its container must be disposed of in a safe way, and as per local legislation. Notify authorities if product enters sewers or public waters.

### 6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing vapours, mist. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue and can be hazardous.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Terpenes and Terpenoids, sweet orange-oil (68647-72-3)

##### USA - OSHA - Occupational Exposure Limits

Remark (OSHA) : OELs not established

#### Carbon Dioxide (as compressed gas) (124-38-9)

##### Canada (Alberta) - Occupational Exposure Limits

OEL TWA : 9000 mg/m<sup>3</sup>

OEL TWA [ppm] : 5000 ppm

OEL STEL : 54000 mg/m<sup>3</sup>

OEL STEL [ppm] : 30000 ppm

##### Canada (Quebec) - Occupational Exposure Limits

VECD (OEL STEL) : 54000 mg/m<sup>3</sup>

VECD (OEL STEL) [ppm] : 30000 ppm

VEMP (OEL TWA) : 9000 mg/m<sup>3</sup>

VEMP (OEL TWA) [ppm] : 5000 ppm

##### Canada (British Columbia) - Occupational Exposure Limits

OEL TWA [ppm] : 5000 ppm

OEL STEL [ppm] : 15000 ppm

##### Canada (Manitoba) - Occupational Exposure Limits

OEL TWA [ppm] : 5000 ppm

OEL STEL [ppm] : 30000 ppm

##### Canada (New Brunswick) - Occupational Exposure Limits

OEL TWA : 9000 mg/m<sup>3</sup>

OEL TWA [ppm] : 5000 ppm

OEL STEL : 54000 mg/m<sup>3</sup>

OEL STEL [ppm] : 30000 ppm

##### Canada (Newfoundland and Labrador) - Occupational Exposure Limits

OEL TWA [ppm] : 5000 ppm

OEL STEL [ppm] : 30000 ppm

##### Canada (Nova Scotia) - Occupational Exposure Limits

OEL TWA [ppm] : 5000 ppm

OEL STEL [ppm] : 30000 ppm

##### Canada (Nunavut) - Occupational Exposure Limits

OEL TWA [ppm] : 5000 ppm

OEL STEL [ppm] : 30000 ppm

##### Canada (Northwest Territories) - Occupational Exposure Limits

OEL TWA [ppm] : 5000 ppm

OEL STEL [ppm] : 30000 ppm

##### Canada (Ontario) - Occupational Exposure Limits

OEL TWA [ppm] : 5000 ppm

OEL STEL [ppm] : 30000 ppm

##### Canada (Prince Edward Island) - Occupational Exposure Limits

OEL TWA [ppm] : 5000 ppm

OEL STEL [ppm] : 30000 ppm

##### Canada (Saskatchewan) - Occupational Exposure Limits

OEL TWA [ppm] : 5000 ppm

OEL STEL [ppm] : 30000 ppm

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### Carbon Dioxide (as compressed gas) (124-38-9)

#### Canada (Yukon) - Occupational Exposure Limits

OEL TWA	9000 mg/m <sup>3</sup>
OEL TWA [ppm]	5000 ppm
OEL STEL	27000 mg/m <sup>3</sup>
OEL STEL [ppm]	15000 ppm

#### USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA [ppm]	5000 ppm
ACGIH OEL STEL [ppm]	30000 ppm

#### USA - OSHA - Occupational Exposure Limits

OSHA PEL TWA [1]	9000 mg/m <sup>3</sup>
OSHA PEL TWA [2]	5000 ppm
OSHA PEL STEL [1]	54000 mg/m <sup>3</sup>
OSHA PEL STEL [2]	30000 ppm

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Gloves. Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection.

#### Hand protection:

Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. Suitable gloves for this specific application can be recommended by the glove supplier.

#### Eye protection:

Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

#### Skin and body protection:

Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

#### Respiratory protection:

In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with gas filter (type A2). Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

#### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: No data available
Colour	: Clear
Odour	: Orange
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

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### SECTION 10: Stability and reactivity

Reactivity	: No dangerous reactions known under normal conditions of use.
Chemical stability	: Stable under recommended handling and storage conditions (see section 7).
Possibility of hazardous reactions	: None known.
Conditions to avoid	: No flames, no sparks. Eliminate all sources of ignition. Elevated temperature. Prevent vapour accumulation.
Incompatible materials	: Strong oxidizing agents, reducing agents.
Hazardous decomposition products	: Carbon oxides (CO, CO <sub>2</sub> ). Toxic fumes.
Hardening time:	: No additional information available

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

#### Terpenes and Terpenoids, sweet orange-oil (68647-72-3)

LD50 oral rat	4400 mg/kg Source: HNSO CCID
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#### Carbon Dioxide (as compressed gas) (124-38-9)

LD50 oral rat	study technically not feasible
LD50 dermal rat	study technically not feasible
LC50 Inhalation - Rat	not classified

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: May be fatal if swallowed and enters airways.
Symptoms/effects	: May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness.
Symptoms/effects after inhalation	: May be fatal if swallowed and enters airways.
Symptoms/effects after skin contact	: May cause skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

#### 12.2. Persistence and degradability

UltraClean	
Persistence and degradability	No information available.

#### 12.3. Bioaccumulative potential

UltraClean	
Bioaccumulative potential	No information available.

#### 12.4. Mobility in soil

UltraClean	
Ecology - soil	No information available.

#### 12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No data available.

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Waste treatment methods	: Obtain the consent of pollution control authorities before discharging to wastewater treatment plants. No discharges to surface waters are allowed without authorization under the Wastewater Systems Effluent Regulations. Follow all national, provincial and local requirements for wastewater discharge.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment. Container under pressure. Do not drill or burn even after use.

# UltraClean

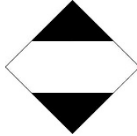
## Safety Data Sheet

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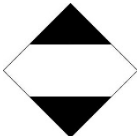
### SECTION 14: Transport information

#### Department of Transportation (DOT) / Transportation Canada (TDG)


In accordance with DOT & TDG

Transport document description	: UN1950 Aerosols (Limited quantity), 2.1	
UN-No.	: UN1950	
Proper Shipping Name	: Aerosols Limited quantity	
Class	: 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115	
Hazard labels	: LTD QTY - Limited quantity	
TDG Note	: For products with an inner packaging < 1.0 L, this component may be shipped as a Limited Quantity as per TDGSection 1.17.	
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 75 kg	
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 150 kg	
DOT Special Provisions (49 CFR 172.102)	: N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols.	
DOT Packaging Exceptions (49 CFR 173.xxx)	: 306	
DOT Packaging Non Bulk (49 CFR 173.xxx)	: None	
DOT Packaging Bulk (49 CFR 173.xxx)	: None	
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.	
DOT Vessel Stowage Other	: 25 - Protected from sources of heat, 87 - Stow "separated from" Class 1 (explosives) except Division 14, 126 - Segregation same as for Class 9, miscellaneous hazardous materials	
Emergency Response Guide (ERG) Number	: 126	
Other information	: No supplementary information available.	

#### Transport by sea (IMDG)

Transport document description (IMDG)	: UN 1950 AEROSOLS (Limited quantity), 2.1	
UN-No. (IMDG)	: 1950	
Proper Shipping Name (IMDG)	: AEROSOLS	
Class (IMDG)	: 2 - Gases	
Danger labels (IMDG)	:	
Special provisions (IMDG)	: 63, 190, 277, 327, 344, 959	
Limited quantities (IMDG)	: SP277	
Excepted quantities (IMDG)	: E0	
Packing instructions (IMDG)	: P207, LP02	
Special packing provisions (IMDG)	: PP87, L2	
EmS-No. (Fire)	: F-D - FIRE SCHEDULE Delta - FLAMMABLE GASES	
EmS-No. (Spillage)	: S-U - SPILLAGE SCHEDULE Uniform - GASES (FLAMMABLE, TOXIC OR CORROSIVE)	
Stowage category (IMDG)	: None	

#### Air transport (IATA)

Transport document description (IATA)	: UN 1950 Aerosols (limited quantity), 2.1	
UN-No. (IATA)	: 1950	
Proper Shipping Name (IATA)	: Aerosols, flammable	
Class (IATA)	: 2 - Gases	
Danger labels (IATA)	:	
PCA Excepted quantities (IATA)	: E0	
PCA Limited quantities (IATA)	: Y203	
PCA limited quantity max net quantity (IATA)	: 30kgG	
PCA packing instructions (IATA)	: 203	
PCA max net quantity (IATA)	: 75kg	
CAO packing instructions (IATA)	: 203	
CAO max net quantity (IATA)	: 150kg	
Special provisions (IATA)	: A145, A167, A802	
ERG code (IATA)	: 10L	

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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## Safety Data Sheet

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### SECTION 15: Regulatory information

#### 15.1. National regulations

##### UltraClean

All chemical substances in this product are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL) or are exempt.

#### 15.2. International regulations

##### UltraClean

All chemical substances in this product are listed as "Active" in the EPA (Environmental Protection Agency) "TSCA Inventory Notification (Active-Inactive) Requirements Rule" ("the Final Rule") of Feb. 2019, as amended Feb. 2021, or are otherwise exempt or regulated by other agencies such as FDA or FIFRA.

### SECTION 16: Other information

Revision date : 03 November 2023

Other information : Revised by: Regulatory & Compliance

Safety Data Sheet (SDS), Canada

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.