# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** FRESH LINEN AIR FRESHENER AND DEORORIZER

**Other means of identification**
- **SDS number:** RE1000000035

### Recommended restrictions
- **Product Use:** Air Freshener
- **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**

#### Health Hazards
- **Serious Eye Damage/Eye Irritation**
- **Toxic to reproduction**
- **Specific Target Organ Toxicity - Single Exposure**

#### Target Organs
1. Narcotic effect.

### Environmental Hazards
- **Acute hazards to the aquatic environment**

### Label Elements

**Hazard Symbol:**

![Symbol Image]
Signal Word: Danger

Hazard Statement: Extremely flammable aerosol. Causes serious eye irritation. Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness. Harmful to aquatic life.

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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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. Call a POISON CENTER/doctor if you feel unwell.

Storage: Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

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

3. Composition/information on ingredients
## Mixtures

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS number</th>
<th>Content in percent (%)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanone</td>
<td>67-64-1</td>
<td>50 - &lt;100%</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>10 - &lt;20%</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>10 - &lt;20%</td>
</tr>
<tr>
<td>Benzene, 2-hydroxy, phenylmethyl ester</td>
<td>118-58-1</td>
<td>0.1 - &lt;1%</td>
</tr>
<tr>
<td>Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-</td>
<td>1222-05-5</td>
<td>0.1 - &lt;1%</td>
</tr>
<tr>
<td>Benzenepropanal, 4-(1,1-dimethylethyl)-α-methyl-</td>
<td>80-54-6</td>
<td>0.1 - &lt;1%</td>
</tr>
</tbody>
</table>

* 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.

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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. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures: Dike for later disposal. 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: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer.

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. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required.

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. Store locked up. Aerosol Level 3

8. Exposure controls/personal protection

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanone</td>
<td>STEL</td>
<td>1,000 ppm 2,400 mg/m3</td>
<td>US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>750 ppm 1,780 mg/m3</td>
<td>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)</td>
</tr>
<tr>
<td></td>
<td>PEL</td>
<td>1,000 ppm 2,400 mg/m3</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
<tr>
<td>AN ESL</td>
<td></td>
<td>2,000 ppb</td>
<td>US. Texas, Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)</td>
</tr>
<tr>
<td>Exposure Limit</td>
<td>Value</td>
<td>Source</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>250 ppm</td>
<td>US. ACGIH Threshold Limit Values (03 2015)</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>750 ppm, 1,800 mg/m³</td>
<td>US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)</td>
<td></td>
</tr>
<tr>
<td>Ceiling</td>
<td>3,000 ppm</td>
<td>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)</td>
<td></td>
</tr>
<tr>
<td>STEL</td>
<td>500 ppm</td>
<td>US. ACGIH Threshold Limit Values (03 2015)</td>
<td></td>
</tr>
<tr>
<td>TWA PEL</td>
<td>500 ppm, 1,200 mg/m³</td>
<td>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)</td>
<td></td>
</tr>
<tr>
<td>ST ESL</td>
<td>7,800 µg/m³</td>
<td>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)</td>
<td></td>
</tr>
<tr>
<td>AN ESL</td>
<td>4,800 µg/m³</td>
<td>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>750 ppm, 1,800 mg/m³</td>
<td>US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)</td>
<td></td>
</tr>
<tr>
<td>ST ESL</td>
<td>3,300 ppb</td>
<td>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)</td>
<td></td>
</tr>
<tr>
<td>REL</td>
<td>250 ppm, 590 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2005)</td>
<td></td>
</tr>
<tr>
<td>STEL</td>
<td>1,000 ppm, 2,400 mg/m³</td>
<td>US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)</td>
<td></td>
</tr>
<tr>
<td>Propane</td>
<td>REL</td>
<td>1,000 ppm, 1,800 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2005)</td>
</tr>
<tr>
<td></td>
<td>PEL</td>
<td>1,000 ppm, 1,800 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
<tr>
<td></td>
<td>TWA PEL</td>
<td>1,000 ppm, 1,800 mg/m³</td>
<td>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>1,000 ppm, 1,800 mg/m³</td>
<td>US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)</td>
</tr>
<tr>
<td>Butane</td>
<td>REL</td>
<td>800 ppm, 1,900 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2005)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>800 ppm, 1,900 mg/m³</td>
<td>US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>1,000 ppm</td>
<td>US. ACGIH Threshold Limit Values (03 2018)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>800 ppm, 1,900 mg/m³</td>
<td>US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)</td>
</tr>
<tr>
<td>AN ESL</td>
<td>3,000 ppb</td>
<td>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)</td>
<td></td>
</tr>
<tr>
<td>AN ESL</td>
<td>7,100 µg/m³</td>
<td>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)</td>
<td></td>
</tr>
<tr>
<td>TWA PEL</td>
<td>800 ppm, 1,900 mg/m³</td>
<td>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)</td>
<td></td>
</tr>
<tr>
<td>ST ESL</td>
<td>66,000 µg/m³</td>
<td>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)</td>
<td></td>
</tr>
<tr>
<td>ST ESL</td>
<td>28,000 ppb</td>
<td>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)</td>
<td></td>
</tr>
</tbody>
</table>

**Biological Limit Values**

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanone (acetone: Sampling time: End of shift.)</td>
<td>25 mg/l (Urine)</td>
<td>ACGIH BEL (03 2015)</td>
</tr>
</tbody>
</table>

**Appropriate Engineering Controls**

No data available.

SDS_US - RE1000000035
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. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

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: Not classified for acute toxicity based on available data.
**Specified substance(s):**

- **2-Propanone**: LD 50 (Rat): 5,800 mg/kg
- **Benzoic acid, 2-hydroxy-phenylmethyl ester**: LD 50 (Rat): 3,031 mg/kg
- **Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-**: LD 50 (Rat): > 4,640 mg/kg
- **Benzenepropanal, 4-(1,1-dimethylethyl)-α-methyl-**: LD 50 (Rat): 1,390 mg/kg

**Dermal Product:**

Not classified for acute toxicity based on available data.

**Specified substance(s):**

- **2-Propanone**: LD 50 (Rabbit): > 7,426 mg/kg
- **Benzoic acid, 2-hydroxy-phenylmethyl ester**: LD 50 (Rabbit): > 2,000 mg/kg
- **Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-**: LD 50 (Rat): > 10,000 mg/kg
- **Benzenepropanal, 4-(1,1-dimethylethyl)-α-methyl-**: LD 50 (Rat): > 2,000 mg/kg

**Inhalation Product:**

Not classified for acute toxicity based on available data.

**Specified substance(s):**

- **2-Propanone**: LC 50 (Rat): 50.1 mg/l
- **Propane**: LC 50 (Mouse): 1,237 mg/l
- **Butane**: LC 50 (Mouse): 1,237 mg/l
- **Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-**: LC 50: > 20 mg/l

**Repeated dose toxicity Product:**

No data available.
**Specified substance(s):**

<table>
<thead>
<tr>
<th>Substance</th>
<th>NOAEL (Rat(Male), Oral, 13 Weeks): 10,000 ppm(m) Oral Experimental result, Key study</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanone</td>
<td></td>
</tr>
<tr>
<td>Propane</td>
<td>NOAEL (Rat(Female, Male), Inhalation, &gt;= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study</td>
</tr>
<tr>
<td>Butane</td>
<td>NOAEL (Rat(Female, Male), Inhalation, &gt;= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study</td>
</tr>
<tr>
<td>Benzoic acid, 2-hydroxy-, phenylmethyl ester</td>
<td>NOAEL (Rat(Female), Oral, 102 - 131 d): 360 mg/kg Oral Read-across from supporting substance (structural analogue or surrogate), Key study</td>
</tr>
<tr>
<td>Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-</td>
<td>NOAEL (Rat(Female), Oral, 13 Weeks): 150 mg/kg Oral Experimental result, Key study</td>
</tr>
<tr>
<td>Benzenepropanal, 4-(1,1-dimethylethyl)-α-methyl-</td>
<td>NOAEL (Rat(Male), Oral, 30 d): 5 mg/kg Oral Other, Key study NOAEL (Rat(Female, Male), Oral, 90 d): 25 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female, Male), Dermal, 5 d): 1,000 mg/kg Dermal Other, Key study NOAEL (Rat(Female, Male), Oral, 30 d): 25 mg/kg Oral Other, Key study</td>
</tr>
</tbody>
</table>

**Skin Corrosion/Irritation Product:**

No data available.

**Specified substance(s):**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Experimental result, Supporting study</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanone</td>
<td>in vivo (Rabbit): Not irritant</td>
</tr>
<tr>
<td>Benzoic acid, 2-hydroxy-, phenylmethyl ester</td>
<td>in vivo (Rabbit): Not irritant</td>
</tr>
<tr>
<td>Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-</td>
<td>in vivo (Rabbit): Irritating</td>
</tr>
<tr>
<td>Benzenepropanal, 4-(1,1-dimethylethyl)-α-methyl-</td>
<td>in vivo (Rabbit): Irritating</td>
</tr>
</tbody>
</table>

**Serious Eye Damage/Eye Irritation Product:**

No data available.

**Respiratory or Skin Sensitization Product:**

No data available.
Specified substance(s):
- 2-Propanone
- Cyclopenta[g]-2-benzopyran,
  1,3,4,6,7,8-hexahydro-
  4,6,6,7,8,8-hexamethyl-
  Benzenepropanal, 4-
  (1,1-dimethylethyl)-α-
  methyl-

Skin sensitization:, in vivo (Guinea pig): Non sensitising
Skin sensitization:, in vivo (Guinea pig): Non sensitising
Skin sensitization:, in vivo (Guinea pig): 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

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.

Specified substance(s):
- Benzenepropanal, 4-(1,1-dimethylethyl)-α-methyl-

Suspected of damaging fertility or the unborn child.

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

Specified substance(s):
- 2-Propanone

Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.

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

Target Organs
Specific Target Organ Toxicity - Single Exposure: Narcotic effect.

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):
2-Propanone LC 50 (Oncorhynchus mykiss, 96 h): 5,540 mg/l Experimental result, Key study
Propane LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Butane LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Benzoic acid, 2-hydroxy-, phenylmethyl ester LC 0 (Danio rerio, 96 h): 0.8 mg/l Experimental result, Key study
LC 50 (Danio rerio, 96 h): 1.03 mg/l Experimental result, Key study
LC 100 (Danio rerio, 96 h): 1.35 mg/l Experimental result, Key study
Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,7,8-hexamethyl- LC 50 (Lepomis macrochirus, 96 h): 1.36 mg/l Experimental result, Key study
Benzenepropanal, 4-(1,1-dimethylethyl)-α-methyl- NOAEL (Danio rerio, 96 h): 1.28 mg/l Experimental result, Key study
EC 50 (Danio rerio, 96 h): 2.04 mg/l Experimental result, Key study

Aquatic Invertebrates
Product: No data available.

Specified substance(s):
2-Propanone LC 50 (Daphnia pulex, 48 h): 8,800 mg/l Experimental result, Key study
Butane LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
Benzoic acid, 2-hydroxy-, phenylmethyl ester LC 50 (Daphnia magna, 48 h): 2.25 mg/l Experimental result, Key study
NOAEL (Daphnia magna, 48 h): 0.894 mg/l Experimental result, Key study
EC 50 (Daphnia magna, 48 h): 9.84 mg/l Experimental result, Key study
EC 50 (Daphnia magna, 24 h): 4.34 mg/l Experimental result, Key study
Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,7,8-hexamethyl- EC 50 (Daphnia magna, 48 h): 0.885 mg/l Experimental result, Not specified
Benzenepropanal, 4-(1,1-dimethylethyl)-α-methyl- EC 50 (Daphnia magna, 48 h): 9.84 mg/l Experimental result, Key study

Chronic hazards to the aquatic environment:

Fish
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Product: Specified substance(s): Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-

Aquatic Invertebrates

Product: Specified substance(s): 2-Propanone

Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-

Toxicity to Aquatic Plants

Product: Specified substance(s): 2-Propanone

Propane

Butane

Benzoic acid, 2-hydroxy-, phenylmethyl ester

Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-

Benzenepropanal, 4-(1,1-dimethylethyl)-α-methyl-

BOD/COD Ratio

Product: Specified substance(s): 2-Propanone

Propane

Butane

Benzoic acid, 2-hydroxy-, phenylmethyl ester

Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-

Benzenepropanal, 4-(1,1-dimethylethyl)-α-methyl-

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: Specified substance(s): LC 50 (Lepomis macrochirus): 0.452 mg/l Experimental result, Key study

LOAEL (Pimephales promelas): 0.14 mg/l Experimental result, Key study

NOAEL (Daphnia magna): 111 µg/l Experimental result, Key study

EC 50 (Daphnia magna): 282 µg/l Experimental result, Key study

BOD/COD Ratio

Product:

Bioconcentration Factor (BCF)

Product: No data available.
Specified substance(s):
2-Propanone
Haddock, adult, Bioconcentration Factor (BCF): 0.69 Aquatic sediment Experimental result, Not specified

Benzoic acid, 2-hydroxy-, phenylmethyl ester
Bioconcentration Factor (BCF): 202 Aquatic sediment QSAR, Supporting study
Bioconcentration Factor (BCF): 311 Aquatic sediment QSAR, Supporting study
Danio rerio, Bioconcentration Factor (BCF): 600 - 900 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Key study
Danio rerio, Bioconcentration Factor (BCF): 1,170 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Key study
Danio rerio, Bioconcentration Factor (BCF): 1,136 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Key study

Cyclopenta[g]:2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-
Lepomis macrochirus, Bioconcentration Factor (BCF): 1,550 Aquatic sediment Experimental result, Key study

Benzenepropanal, 4-(1,1-dimethylethyl)-α-methyl-
Bioconcentration Factor (BCF): 274.3 Aquatic sediment Estimated by calculation, Key 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
2-Propanone
No data available.
Propane
No data available.
Butane
No data available.
Benzoic acid, 2-hydroxy-, phenylmethyl ester
No data available.
Cyclopenta[g]:2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-
No data available.
Benzenepropanal, 4-(1,1-dimethylethyl)-α-methyl-
No data available.

Other adverse effects: Harmful to aquatic organisms.

13. Disposal considerations

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws.

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):

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanone</td>
<td>lbs. 5000</td>
</tr>
<tr>
<td>Propane</td>
<td>lbs. 100</td>
</tr>
<tr>
<td>Butane</td>
<td>lbs. 100</td>
</tr>
</tbody>
</table>

Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**
- Fire Hazard
- Immediate (Acute) Health Hazards
- Delayed (Chronic) Health Hazard
- Flammable aerosol
- Serious Eye Damage/Eye Irritation
- Toxic to reproduction
- Specific Target Organ Toxicity - Single Exposure

**SARA 302 Extremely Hazardous Substance**

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanone</td>
<td></td>
</tr>
</tbody>
</table>

**SARA 304 Emergency Release Notification**

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanone</td>
<td>lbs. 5000</td>
</tr>
<tr>
<td>Propane</td>
<td>lbs. 100</td>
</tr>
<tr>
<td>Butane</td>
<td>lbs. 100</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazardous Chemical**

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Threshold Planning Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanone</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Propane</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Butane</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Benzoic acid, 2-hydroxy-, phenylmethyl ester</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Cyclopenta[g]-2- benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8-hexamethyl-</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Benzenepropanal, 4-[(1,1-dimethylethyl)-α-methyl-</td>
<td></td>
</tr>
</tbody>
</table>

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

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
2-Propanone
Propane
Butane

US. Massachusetts RTK - Substance List
No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
2-Propanone
Propane
Butane

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:

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia AICS</td>
<td>On or in compliance with the inventory</td>
</tr>
<tr>
<td>Canada DSL Inventory List</td>
<td>On or in compliance with the inventory</td>
</tr>
<tr>
<td>EINECS, ELINCS or NLP</td>
<td>Not in compliance with the inventory.</td>
</tr>
<tr>
<td>Japan (ENCS) List</td>
<td>On or in compliance with the inventory</td>
</tr>
<tr>
<td>China Inv. Existing Chemical Substances</td>
<td>On or in compliance with the inventory</td>
</tr>
<tr>
<td>Korea Existing Chemicals Inv. (KECI)</td>
<td>Not in compliance with the inventory.</td>
</tr>
<tr>
<td>Canada NDSL Inventory</td>
<td>Not in compliance with the inventory.</td>
</tr>
<tr>
<td>Philippines PICCS</td>
<td>On or in compliance with the inventory</td>
</tr>
<tr>
<td>US TSCA Inventory</td>
<td>On or in compliance with the inventory</td>
</tr>
<tr>
<td>New Zealand Inventory of Chemicals</td>
<td>On or in compliance with the inventory</td>
</tr>
<tr>
<td>Japan ISHL Listing</td>
<td>On or in compliance with the inventory</td>
</tr>
<tr>
<td>Japan Pharmacopoeia Listing</td>
<td>Not in compliance with the inventory.</td>
</tr>
<tr>
<td>Mexico INSQ</td>
<td>Not in compliance with the inventory.</td>
</tr>
<tr>
<td>Ontario Inventory</td>
<td>On or in compliance with the inventory</td>
</tr>
<tr>
<td>Taiwan Chemical Substance Inventory</td>
<td>On or in compliance with the inventory</td>
</tr>
</tbody>
</table>

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

| Issue Date:               | 04/15/2019 |
| Revision Information:     | No data available. |
| Version #:                | 1.0 |
| Further Information:      | No data available. |

**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.