SAFETY DATA SHEET

1. Identification

**Product identifier:** LEMON LIME METERED AIR FRESHENER

**Other means of identification**

- **SDS number:** RE1000004234

**Recommended restrictions**

- **Product use:** Air Freshener
- **Restrictions on use:** Not known.

**Manufacturer/Importer/Distributor Information**

**Manufacturer**

- **Company Name:** CLAIRE MANUFACTURING COMPANY
- **Address:** 1000 Integrax 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
- Skin sensitizer
- Specific Target Organ Toxicity - Single Exposure

**Target Organs**

1. Narcotic effect.

**Label Elements**

**Hazard Symbol:**

- ![Flammable Symbol](image)
- ![Warning Symbol](image)

**Signal Word:** Danger
Hazard Statement: Extremely flammable aerosol. Causes serious eye irritation. May cause an allergic skin reaction. May cause drowsiness or dizziness.

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. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Use only outdoors or in a well-ventilated area.

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. IF ON SKIN: Wash with plenty of water/… If skin irritation or rash occurs: Get medical advice/attention. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see on this label). Wash contaminated clothing before reuse.

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

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

<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>2,6-Octadienal, 3,7-dimethyl-</td>
<td>5392-40-5</td>
<td>0.1 - &lt;1%</td>
</tr>
<tr>
<td>Terpenes and Terpenoids, lime-oil</td>
<td>68917-71-5</td>
<td>0.1 - &lt;1%</td>
</tr>
<tr>
<td>2,6-Octadien-1-ol, 3,7-dimethyl-, 1-acetate, (2E)-</td>
<td>105-87-3</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: If skin irritation occurs: Get medical advice/attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical 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. See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

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. Avoid contact with eyes, skin, and clothing.

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 3

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

<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></td>
<td>TWA</td>
<td>250 ppm</td>
<td>US. ACGIH Threshold Limit Values (03 2015)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>750 ppm 1,800 mg/m³</td>
<td>US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)</td>
</tr>
<tr>
<td>Ceiling</td>
<td></td>
<td>3,000 ppm</td>
<td>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>500 ppm</td>
<td>US. ACGIH Threshold Limit Values (03 2015)</td>
</tr>
<tr>
<td></td>
<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>
</tr>
<tr>
<td>REL</td>
<td></td>
<td>250 ppm 590 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2005)</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. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)</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>Substance</td>
<td>Concentration</td>
<td>Source</td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------------</td>
<td>------------------------------------------------------------------------</td>
<td></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>
<tr>
<td>2,6-Octadienal, 3,7-dimethyl-</td>
<td>TWA 5 ppm</td>
<td>US. ACGIH Threshold Limit Values (01 2010)</td>
<td></td>
</tr>
<tr>
<td>- Inhalable fraction and vapor.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>50 ppb</td>
<td>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)</td>
<td></td>
</tr>
<tr>
<td>ST ESL</td>
<td>310 µg/m3</td>
<td>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)</td>
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<tr>
<td>AN ESL</td>
<td>31 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>5 ppb</td>
<td>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)</td>
<td></td>
</tr>
<tr>
<td>Ethanol, 2,2',2''-nitrilotris-</td>
<td>TWA PEL 5 mg/m3</td>
<td>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>50 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>5 mg/m3</td>
<td>US. ACGIH Threshold Limit Values (2008)</td>
<td></td>
</tr>
<tr>
<td>Ethanol, 2,2'-iminobis-</td>
<td>TWA PEL 10 mg/m3</td>
<td>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>10 mg/m3</td>
<td>US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)</td>
<td></td>
</tr>
<tr>
<td>Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-</td>
<td>TWA 10 mg/m3</td>
<td>US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>10 mg/m3</td>
<td>US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)</td>
<td></td>
</tr>
<tr>
<td>Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl- - Inhalable fraction and vapor.</td>
<td>TWA 2 mg/m3</td>
<td>US. ACGIH Threshold Limit Values (2008)</td>
<td></td>
</tr>
<tr>
<td>Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-</td>
<td>TWA PEL 10 mg/m3</td>
<td>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>10 mg/m3</td>
<td>US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)</td>
<td></td>
</tr>
<tr>
<td>Ethanol, 2,2'-iminobis-</td>
<td>REL 3 ppm 15 mg/m3</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2005)</td>
<td></td>
</tr>
<tr>
<td>AN ESL</td>
<td>10 mg/m3</td>
<td>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>15 mg/m3</td>
<td>US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>2 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>97 µg/m3</td>
<td>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)</td>
<td></td>
</tr>
<tr>
<td>Ethanol, 2,2'-iminobis-</td>
<td>TWA 1 mg/m3</td>
<td>US. ACGIH Threshold Limit Values (2009)</td>
<td></td>
</tr>
<tr>
<td>- Inhalable fraction and vapor.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethanol, 2,2'-iminobis-</td>
<td>TWA 3 ppm 15 mg/m3</td>
<td>US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)</td>
<td></td>
</tr>
</tbody>
</table>
### Chemical Identity

<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.

### 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:**

Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**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. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

### 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:
3,102.6408 - 4,481.5922 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reactivity:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Chemical Stability:</strong></td>
<td>Material is stable under normal conditions.</td>
</tr>
<tr>
<td><strong>Possibility of hazardous reactions:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Conditions to avoid:</strong></td>
<td>Avoid heat or contamination.</td>
</tr>
<tr>
<td><strong>Incompatible Materials:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Hazardous Decomposition Products:</strong></td>
<td>No data available.</td>
</tr>
</tbody>
</table>

### 11. Toxicological information

<table>
<thead>
<tr>
<th>Exposure route</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inhalation:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Skin Contact:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Eye contact:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Ingestion:</strong></td>
<td>No data available.</td>
</tr>
</tbody>
</table>

### Symptoms related to the physical, chemical and toxicological characteristics

<table>
<thead>
<tr>
<th>Exposure route</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inhalation:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Skin Contact:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Eye contact:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Ingestion:</strong></td>
<td>No data available.</td>
</tr>
</tbody>
</table>

### 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
- 2,6-Octadienal, 3,7-dimethyl-
  - LD 50 (Rat): 6,800 mg/kg
- Terpenes and Terpenoids, lime-oil
  - LD 50: 4,367 mg/kg
- 2,6-Octadien-1-ol, 3,7-dimethyl-1-acetate, (2E)-
  - LD 50 (Rat): 6,330 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
- 2,6-Octadienal, 3,7-dimethyl-
  - LD 50 (Rat): > 2,000 mg/kg
- Terpenes and Terpenoids, lime-oil
  - LD 50: > 2,000 mg/kg
- 2,6-Octadien-1-ol, 3,7-dimethyl-1-acetate, (2E)-
  - LD 50: > 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
  - LC 50: > 5 mg/l
- Propane
  - LC 50 (Mouse): 1,237 mg/l
- Butane
  - LC 50 (Mouse): 1,237 mg/l
- 2,6-Octadienal, 3,7-dimethyl-
  - LC 50: > 20 mg/l
  - LC 50: > 5 mg/l
- Terpenes and Terpenoids, lime-oil
  - LC 50: > 5 mg/l
  - LC 50: > 20 mg/l
- 2,6-Octadien-1-ol, 3,7-dimethyl-1-acetate, (2E)-
  - LC 50: > 20 mg/l

Repeated dose toxicity

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

2-Propanone  
NOAEL (Rat(Male), Oral, 13 Weeks): 10,000 ppm(m) Oral 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

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

2,6-Octadienal, 3,7-dimethyl-  
LOAEL (Rat(Female, Male), Oral, 104 - 105 Weeks): 210 mg/kg Oral Experimental result, Key study

2,6-Octadien-1-ol, 3,7-dimethyl-, 1-acetate, (2E)-  
NOAEL (Rat(Female, Male), Oral, 13 Weeks): 2,000 mg/kg Oral Experimental result, Weight of Evidence study
NOAEL (Mouse(Female, Male), Oral, 13 Weeks): 1,000 mg/kg Oral Experimental result, Weight of Evidence study

Skin Corrosion/Irritation
Product: No data available.

Specified substance(s):

2-Propanone  
in vivo (Rabbit): Not irritant Experimental result, Supporting study

2,6-Octadien-1-ol, 3,7-dimethyl-, 1-acetate, (2E)-  
in vivo (Rabbit): Irritating Read-across from supporting substance (structural analogue or surrogate), Weight of Evidence study

Serious Eye Damage/Eye Irritation
Product: No data available.

Specified substance(s):

2-Propanone  
Irritating.
Rabbit, 24 hrs: Minimum grade of severe eye irritant

Respiratory or Skin Sensitization
Product: No data available.

Specified substance(s):

2-Propanone  
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

No carcinogenic components identified

Germ Cell Mutagenicity
SDS_US - RE1000004234
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): 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
2,6-Octadienal, 3,7-dimethyl-  
LC 50 (Leuciscus idus, 96 h): 6.78 mg/l Experimental result, Key study
Terpenes and Terpenoids, lime-oil  
LC 50 (96 h): 18 mg/l
2,6-Octadien-1-ol, 3,7-dimethyl-, 1-acetate,  
LC 50 (Leuciscus idus, 96 h): 68.12 mg/l Read-across from supporting substance (structural analogue or surrogate), 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
- 2,6-Octadienal, 3,7-dimethyl-
  EC 50 (Daphnia magna, 48 h): 6.8 mg/l Experimental result, Key study
- Terpenes and Terpenoids, lime-oil
  EC 50 (48 h): 5 mg/l
  NOAEL (48 h): 2.2 mg/l
- 2,6-Octadien-1-ol, 3,7-dimethyl-, 1-acetate, (2E)-
  EC 50 (Daphnia magna, 48 h): 14.1 mg/l Experimental result, Key study

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Specified substance(s):
- 2-Propanone
  LOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study
  NOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study

Toxicity to Aquatic Plants
Product: No data available.

Specified substance(s):
- Terpenes and Terpenoids, lime-oil
  EC 50 (72 h): 8 mg/l
  NOEC (72 h): 3.2 mg/l

Persistence and Degradability

Biodegradation
Product: No data available.

Specified substance(s):
- 2-Propanone
  90.9 % (28 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
- Butane
  100 % (385.5 h) Detected in water. Experimental result, Key study
  50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study
2,6-Octadienal, 3,7-dimethyl- 85 - 95 % (28 d) Detected in water. Experimental result, Key study

Terpenes and Terpenoids, lime-oil 100 % The product is easily biodegradable.

2,6-Octadien-1-ol, 3,7-dimethyl-, 1-acetate, (2E)- > 70 % (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):
2-Propanone Haddock, adult, Bioconcentration Factor (BCF): 0.69 Aquatic sediment Experimental result, Not specified

2,6-Octadienal, 3,7-dimethyl- Bioconcentration Factor (BCF): 89.72 Aquatic sediment Estimated by calculation, Key study

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Specified substance(s):
Terpenes and Log Kow: 4.38
Terpenoids, lime-oil

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.
2,6-Octadienal, 3,7-dimethyl- No data available.
Terpenes and Terpenoids, lime-oil
2,6-Octadien-1-ol, 3,7-dimethyl-, 1-acetate, (2E)- 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**

- Restrictions on use: Not known.

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


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>SDS_US - RE1000004234</td>
<td>13/16</td>
</tr>
</tbody>
</table>
2-Propanone  lbs. 5000  
Propane  lbs. 100  
Butane  lbs. 100  
Ethanol, 2,2’-iminobis-  lbs. 100

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
- Fire Hazard
- Immediate (Acute) Health Hazards
- Flammable aerosol
- Serious Eye Damage/Eye Irritation
- Skin sensitizer
- Specific Target Organ Toxicity - Single Exposure

SARA 302 Extremely Hazardous Substance

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
<th>Threshold Planning Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanone</td>
<td></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>
<tr>
<td>Ethanol, 2-(2-ethoxyethoxy)-</td>
<td>lbs. 100</td>
</tr>
<tr>
<td>Ethanol, 2,2’-iminobis-</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>2,6-Octadienal, 3,7-dimethyl-</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Terpenes and Terpenoids, lime-oil</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>2,6-Octadien-1-ol, 3,7-dimethyl-1-acetate, (2E)-</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Ethanol, 2,2’,2”-nitrilotris-Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Ethanol, 2,2’-iminobis-</td>
<td>10000 lbs</td>
</tr>
</tbody>
</table>

SARA 313 (TRI Reporting)

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reporting threshold for manufacturing and processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol, 2-(2-ethoxyethoxy)-</td>
<td>N230 lbs</td>
</tr>
</tbody>
</table>

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.
Ethanol, 2,2'-iminobis- Carcinogenic. 07 2012

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

Chemical Identity
2-Propanone
Propane
Butane
Ethanol, 2-(2-ethoxyethoxy)-

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
Ethanol, 2-(2-ethoxyethoxy)-

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: 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: Not in compliance with the inventory.
US TSCA Inventory: On or 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: 08/05/2019
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.