SAFETY DATA SHEET

1. Identification

**Product identifier:** LAVENDER METERED AIR FRESHENER

**Other means of identification**

**SDS number:** RE1000016116

**Recommended restrictions**

**Product use:** Air Freshener

**Restrictions on use:** Not known.

**Manufacturer/Importer/Distributor Information**

**Manufacturer**

**Company Name:** CLAIRE MANUFACTURING COMPANY

**Address:** 1000 Integrang 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 (Category 2A)
- Skin sensitizer (Category 1)
- Toxic to reproduction (Category 2)
- Specific Target Organ Toxicity - Single Exposure (Category 3.1)

**Target Organs**

1. Narcotic effect.

**Environmental Hazards**

- Acute hazards to the aquatic environment (Category 3)

**Label Elements**

**Hazard Symbol:**

![Hazard Symbols]
Signal Word: Danger

Hazard Statement: Extremely flammable aerosol. Causes serious eye irritation. May cause an allergic skin reaction. 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. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. 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. 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 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>Octanal, 2-(phenylmethylene)-</td>
<td>101-86-0</td>
<td>0.1 - &lt;1%</td>
</tr>
<tr>
<td>Cyclohexene, 1-methyl-4-(1- methylethenyl)-, (4R)-</td>
<td>5989-27-5</td>
<td>0.1 - &lt;1%</td>
</tr>
<tr>
<td>Terpineol, dihydro-, acetate</td>
<td>58985-18-5</td>
<td>0.1 - &lt;1%</td>
</tr>
<tr>
<td>Benzeneopropanal, 4-(1,1- dimethylethyl)-a-methyl-</td>
<td>80-54-6</td>
<td>0.1 - &lt;1%</td>
</tr>
<tr>
<td>2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-</td>
<td>106-24-1</td>
<td>0.1 - &lt;1%</td>
</tr>
</tbody>
</table>
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: 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. 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. 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></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></td>
<td>Ceiling</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></td>
<td>REL</td>
<td>250 ppm 590 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards</td>
</tr>
<tr>
<td>Substance</td>
<td>REL</td>
<td>1,000 ppm</td>
<td>1,800 mg/m³</td>
</tr>
<tr>
<td>-----------</td>
<td>-----</td>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>PEL</td>
<td>1,000 ppm</td>
<td>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>TWA PEL</td>
<td>1,000 ppm</td>
<td>1,800 mg/m³</td>
<td>US. California Code of Regulations, Title 8, Section 5155, Airborne Contaminants (09 2006)</td>
</tr>
<tr>
<td>TWA</td>
<td>1,000 ppm</td>
<td>1,800 mg/m³</td>
<td>US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)</td>
</tr>
<tr>
<td>TWA</td>
<td>1,000 ppm</td>
<td>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</td>
<td>1,900 mg/m³</td>
</tr>
<tr>
<td>TWA</td>
<td>800 ppm</td>
<td>1,900 mg/m³</td>
<td>US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)</td>
</tr>
<tr>
<td>STEL</td>
<td>1,000 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>800 ppm</td>
<td>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></td>
<td></td>
</tr>
<tr>
<td>AN ESL</td>
<td>7,100 µg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA PEL</td>
<td>800 ppm</td>
<td>1,900 mg/m³</td>
<td>US. California Code of Regulations, Title 8, Section 5155, Airborne Contaminants (09 2006)</td>
</tr>
<tr>
<td>ST ESL</td>
<td>66,000 µg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST ESL</td>
<td>28,000 ppb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-</td>
<td>TWA PEL</td>
<td>2 mg/m³</td>
<td></td>
</tr>
<tr>
<td>REL</td>
<td>2 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>2 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEL</td>
<td>3 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEL</td>
<td>2 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>2 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>2 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST ESL</td>
<td>3.3 ppb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AN ESL</td>
<td>0.33 ppb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST ESL</td>
<td>20 µg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AN ESL</td>
<td>2 µg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acetic acid, phenylmethyl ester</td>
<td>TWA</td>
<td>10 ppm</td>
<td></td>
</tr>
<tr>
<td>TWA PEL</td>
<td>10 ppm</td>
<td>61 mg/m³</td>
<td></td>
</tr>
<tr>
<td>ST ESL</td>
<td>100 ppb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AN ESL</td>
<td>10 ppb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST ESL</td>
<td>610 µg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AN ESL</td>
<td>61 µg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethanol, 2,2',2''-nitrilotris-</td>
<td>TWA PEL</td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td>ST ESL</td>
<td>50 µg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>5 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethanol, 2,2''-iminobis-</td>
<td>REL</td>
<td>3 ppm</td>
<td>15 mg/m³</td>
</tr>
<tr>
<td>AN ESL</td>
<td>7 µg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>3 ppm</td>
<td>15 mg/m³</td>
<td></td>
</tr>
<tr>
<td>TWA PEL</td>
<td>0.46 ppm</td>
<td>2 mg/m³</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:</td>
<td>25 mg/l (Urine)</td>
<td>ACGIH BEL (03 2015)</td>
</tr>
<tr>
<td>Sampling time: End of shift.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Appropriate Engineering Controls

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.

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

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

Octan-2-(phenylmethylene)-
LD 50: > 2,000 mg/kg

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-
LD 50 (Rat): > 2,000 mg/kg

Terpineol, dihydro-, acetate
LD 50: > 2,000 mg/kg

Benzenepropanol, 4-(1,1-dimethylpropyl)-a-methyl-
LD 50 (Rat): 1,390 mg/kg

2,6-Octadecane-1-ol, 3,7-dimethyl-, (2E)-
LD 50 (Rat): 3,600 mg/kg

3-Cyclohexene-1-carboxaldehyde, 2,4-dimethyl-
LD 50: > 2,000 mg/kg

Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,7,8,8-hexamethyl-
LD 50 (Rat): > 4,640 mg/kg

Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-
LD 50 (Mouse): 1,310 mg/kg

Acetic acid, phenylmethyl ester
LD 50 (Rat): > 2,000 mg/kg
LD 50 (Mouse): > 2,000 mg/kg
LD 50 (Rat): 2,490 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

Octan-2-(phenylmethylene)-
LD 50: > 2,000 mg/kg
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-

LD 50 (Rabbit): > 5,000 mg/kg

Terpineol, dihydro-, acetate

LD 50: > 2,000 mg/kg

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

LD 50 (Rat): > 2,000 mg/kg

2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-

LD 50 (Rabbit): > 5,000 mg/kg

3-Cyclohexene-1-carboxaldehyde, 2,4-dimethyl-

LD 50: > 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

Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-

LD 50: > 2,000 mg/kg

Acetic acid, phenylmethyl ester

LD 50 (Rabbit): > 5 g/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

Octanal, 2-(phenylmethylene)-

LC 50: > 20 mg/l

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-

LC 50: > 20 mg/l

LC 50: > 5 mg/l

Terpineol, dihydro-, acetate

LC 50: > 5 mg/l

LC 50: > 20 mg/l

2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-

LC 50: > 20 mg/l

LC 50: > 5 mg/l

3-Cyclohexene-1-carboxaldehyde, 2,4-dimethyl-

LC 50: > 5 mg/l

LC 50: > 20 mg/l

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

LC 50: > 5 mg/l

LC 50: > 20 mg/l
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-
Acetic acid, phenylmethyl ester

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
- Cyclohexene, 1-methyl-4-(1-methyllethenyl)-, (4R)-
  NOAEL (Rat(Male), Oral, 13 Weeks): 600 mg/kg Oral Experimental result, Key study
- Benzenepropanal, 4-(1,1-dimethylethyl)-a-methyl-
  NOAEL (Rat(Female, 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
- 2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-
  NOAEL (Rat(Female, Male), Oral, 112 - 196 d): > 550 mg/kg Oral Experimental result, Key study
  NOAEL (Rat(Female, Male), Dermal): 300 mg/kg Dermal Experimental result, Key study
- Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-
  NOAEL (Rat(Female, Male), Oral, 13 Weeks): 150 mg/kg Oral Experimental result, Key study
- Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-
- Acetic acid, phenylmethyl ester
  NOAEL (Rat(Female, Male), Dermal): 250 mg/kg Dermal Experimental result, Weight of Evidence study
  NOAEL (Rat(Male), Oral, 13 Weeks): 900 mg/kg Oral Experimental result, Supporting study
  NOAEL (Rat(Female), Oral, 13 Weeks): 480 mg/kg Oral Experimental result, Supporting study

Skin Corrosion/Irritation
Product:

No data available.

Specified substance(s):
- 2-Propanone
  in vivo (Rabbit): Not irritant Experimental result, Supporting study
- Cyclohexene, 1-methyl-4-(1-methyllethenyl)-, (4R)-
  in vivo (Rabbit): Not irritant Experimental result, Key study
- Benzenepropanal, 4-(1,1-dimethylethyl)-a-methyl-
  in vivo (Rabbit): Irritating Experimental result, Key study
2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)- in vivo (Rabbit): Irritating Experimental result, Key study

Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl- in vivo (Rabbit): Irritating Experimental result, Key study

Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl- in vivo (Rabbit): Not irritant Experimental result, Supporting study

Acetic acid, phenylmethyl ester in vivo (Rabbit): Not irritant Experimental result, Key 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

Cyclohexene, 1-methyl-4-(1-methylene)ethenyl)-, (4R)- Rabbit, 24 - 72 hrs: Not irritating

Respiratory or Skin Sensitization
Product: No data available.
Specified substance(s):

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)-a-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 (Onchorhynchus 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

Octanal, 2-(phenylmethylene)-
LC 50 (96 h): < 1 mg/l Review

Cyclohexene, 1-methyl-4-(1-methylene)-, (4R)-
EC 50 (Pimephales promelas, 96 h): 688 µg/l Experimental result, Key study

Terpineol, dihydro-, acetate
LC 50 (96 h): < 10 mg/l

Benzenepropanal, 4-(1,1-dimethylethyl)-a-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
Chronic hazards to the aquatic environment:

Fish

Product: No data available.

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

Water Invertebrates

Product: Specified substance(s):
- 2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-
- Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-
- Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-
- Acetic acid, phenylmethyl ester

Aquatic Invertebrates

Product: Specified substance(s):
- 2-Propanone
- Butane
- Cyclohexene, 1-methyl-4-(1-methylethyl)-, (4R)-
- Benzenepropanal, 4-(1,1-dimethylthyl)-a-methyl-
- 2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-
- Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-
- Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-
- Acetic acid, phenylmethyl ester

Aquatic Invertebrates

Product: Specified substance(s):
- LC 0 (Danio rerio, 96 h): 10 mg/l Experimental result, Key study
- LC 50 (Danio rerio, 96 h): +/- 22 mg/l Experimental result, Key study
- LC 50 (Lepomis macrochirus, 96 h): 1.36 mg/l Experimental result, Key study
- LC 50 (Pimephales promelas, 96 h): 110 mg/l Experimental result, Weight of Evidence study
- LC 50 (Medaka, high-eyes (Oryzias latipes), 96 h): 3.48 - 4.6 mg/l Mortality
- LC 50 (Oryzias latipes, 96 h): 4 mg/l Other, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):
- LC 50 (Daphnia pulex, 48 h): 8,800 mg/l Experimental result, Key study
- LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
- EC 50 (Daphnia magna, 48 h): 0.36 mg/l Experimental result, Key study
- NOAEL (Daphnia magna, 48 h): 0.074 mg/l Experimental result, Key study
- EC 50 (Daphnia magna, 48 h): 9.84 mg/l Experimental result, Key study
- EC 50 (Daphnia magna, 48 h): 0.885 mg/l Experimental result, Not specified
- EC 50 (Daphnia magna, 48 h): 10.8 mg/l Experimental result, Key study
- LC 50 (48 h): 9.303 mg/l QSAR QSAR, Key study
- 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, 48 h): 10 mg/l Experimental result, Key study
Product:

Specified substance(s):
2-Propanone
Cyclohexene, 1-methyl-4-(1-methylene)-, (4R)-

Toxicity to Aquatic Plants
Product:
No data available.

Persistence and Degradability

Biodegradation
Product:
No data available.

Specified substance(s):
2-Propanone
Propane
Butane
Cyclohexene, 1-methyl-4-(1-methylene)-, (4R)-
Terpineol, dihydro-, acetate
Benzenepropanal, 4-(1,1-dimethylethyl)-a-methyl-
2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-
Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-

EC 50 (Daphnia magna): 282 µg/l 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
- Cyclohexene, 1-methyl-4-(1-methylene)ethenyl, (4R)-: Bioconcentration Factor (BCF): 864.8 Aquatic sediment QSAR, Key study
- Benzenepropanal, 4-(1,1-dimethylethyl)-a-methyl-: Bioconcentration Factor (BCF): 274.3 Aquatic sediment Estimated by calculation, 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
- Acetic acid, phenylmethyl ester: Bioconcentration Factor (BCF): 8 Aquatic sediment Estimated by calculation, Key study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):
- Cyclohexene, 1-methyl-4-(1-methylene)ethenyl, (4R)-: Log Kow: 4.34 - 4.46 25 °C No Experimental result, Supporting study
- 2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-: Log Kow: 2.6 25 °C

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.
- Octanal, 2-(phenylmethylene)-: No data available.
- Cyclohexene, 1-methyl-4-(1-methylene)ethenyl, (4R)-: No data available.
- Terpineol, dihydro-, acetate: No data available.
- Benzenepropanal, 4-(1,1-dimethylethyl)-a-methyl-2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-: No data available.
- 3-Cyclohexene-1-carboxaldehyde, 2,4-dimethyl-: No data available.
- Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethyl-: No data available.
- Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-: No data available.
Acetic acid, phenylmethyl ester

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>
<tr>
<td>Ethanol, 2,2'-iminobis-</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
- Skin sensitizer
- 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>10000 lbs</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'-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>Octanal, 2-</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>(phenylmethylene)-</td>
<td></td>
</tr>
<tr>
<td>Cyclohexene, 1-methyl-4-</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>(1-methylene)-, (4R)-</td>
<td></td>
</tr>
<tr>
<td>Terpineol, dihydro-,</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>acetate</td>
<td></td>
</tr>
<tr>
<td>Benzenepropanal, 4-(1,1-</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>dimethylethyl)-a-methyl-</td>
<td></td>
</tr>
<tr>
<td>2,6-Octadien-1-ol, 3,7-</td>
<td></td>
</tr>
<tr>
<td>dimethyl-, (2E)-</td>
<td></td>
</tr>
<tr>
<td>3-Cyclohexene-1-</td>
<td></td>
</tr>
<tr>
<td>carboxaldehyde, 2,4-</td>
<td></td>
</tr>
<tr>
<td>dimethyl-</td>
<td></td>
</tr>
<tr>
<td>Cyclopenta[g]-2-</td>
<td>10000 lbs</td>
</tr>
</tbody>
</table>
benzopyran, 1,3,4,6,7,8-
hexahydro-4,6,6,7,8,8-
hexamethyl-
Bicyclo[2.2.1]heptan-2-
one, 1,7,7-trimethyl-
Acetic acid, phenylmethyl
ester
Ethanol, 2,2',2''-nitrilotris-
Ethanol, 2,2'-iminobis-

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
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

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:
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: 07/29/2019
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.