



# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** CLEAN BREEZE HEAVY DUTY ODOR NEUTRALIZER

**Other means of identification**

**SDS number:** RE1000011815

**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 Category 1

**Health Hazards**

Skin sensitizer Category 1

Aspiration Hazard Category 1

**Environmental Hazards**

Acute hazards to the aquatic environment Category 3

Chronic hazards to the aquatic environment Category 3

**Label Elements**

**Hazard Symbol:**



**Signal Word:**

Danger



|   |  |
|---|--|
| <b>Hazard Statement:</b>                          | Extremely flammable aerosol.<br>May cause an allergic skin reaction.<br>May be fatal if swallowed and enters airways.<br>Harmful to aquatic life with long lasting effects.  |
| <b>Precautionary Statements</b>                   |  |
| <b>Prevention:</b>                                | 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 breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment. |
| <b>Response:</b>                                  | IF ON SKIN: Wash with plenty of water/# If skin irritation or rash occurs: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER/doctor/# Do NOT induce vomiting. Specific treatment (see on this label). Wash contaminated clothing before reuse.  |
| <b>Storage:</b>                                   | Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up.  |
| <b>Disposal:</b>                                  | 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.   |
| <b>Hazard(s) not otherwise classified (HNOC):</b> | None.  |

### 3. Composition/information on ingredients

#### Mixtures

| Chemical Identity   | CAS number | Content in percent (%)* |
|---|------------|-------------------------|
| Distillates (petroleum), hydrotreated light                                 | 64742-47-8 | 10 - <20%               |
| Propane   | 74-98-6    | 5 - <10%                |
| Butane  | 106-97-8   | 1 - <5%                 |
| Ethanone, 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)- | 54464-57-2 | 0.1 - <1%               |
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-                           | 5989-27-5  | 0.1 - <1%               |
| Octanal, 2-(phenylmethylene)-   | 101-86-0   | 0.1 - <1%               |
| Benzoic acid, 2-hydroxy-, phenylmethyl ester                                | 118-58-1   | 0.1 - <1%               |
| Benzene, 1,1'-oxybis-   | 101-84-8   | 0.1 - <1%               |
| 2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-                                     | 106-24-1   | 0.1 - <1%               |
| Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene-                            | 127-91-3   | 0.1 - <0.25%            |

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures



|                      |   |
|----------------------|---|
| <b>Ingestion:</b>    | Call a physician or poison control center immediately. Rinse mouth. Never give liquid to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.   |
| <b>Inhalation:</b>   | Move to fresh air.  |
| <b>Skin Contact:</b> | 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. |
| <b>Eye contact:</b>  | Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.   |

**Most important symptoms/effects, acute and delayed**

**Symptoms:** No data available.

**Hazards:** No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** No data available.

**5. Fire-fighting measures**

**General Fire Hazards:** Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** Vapors may travel considerable distance to a source of ignition and flash back.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**6. Accidental release measures**



|   |   |
|---|---|
| <b>Personal precautions, protective equipment and emergency procedures:</b> | 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. |
| <b>Methods and material for containment and cleaning up:</b>                | Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.  |
| <b>Notification Procedures:</b>   | ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.   |
| <b>Environmental Precautions:</b>   | Avoid release to the environment. Prevent further leakage or spillage if safe to do so.   |

## 7. Handling and storage

|  |  |
|--|--|
| <b>Precautions for safe handling:</b>                                | 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. Wash hands thoroughly after handling. |
| <b>Conditions for safe storage, including any incompatibilities:</b> | Store locked up. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Aerosol Level 1   |

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

| Chemical Identity   | Type    | Exposure Limit Values | Source   |
|---|---------|-----------------------|--|
| Distillates (petroleum), hydrotreated light - Non-aerosol. - as total hydrocarbon vapor | TWA     | 200 mg/m3             | US. ACGIH Threshold Limit Values (2008)  |
| Distillates (petroleum), hydrotreated light   | REL     | 100 mg/m3             | US. NIOSH: Pocket Guide to Chemical Hazards (2005)   |
| Distillates (petroleum), hydrotreated light - Non-aerosol. - as total hydrocarbon vapor | TWA     | 200 mg/m3             | US. ACGIH Threshold Limit Values (2008)  |
| Distillates (petroleum), hydrotreated light   | ST ESL  | 3,500 µg/m3           | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|   | AN ESL  | 350 µg/m3             | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
| Propane   | REL     | 1,000 ppm 1,800 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards (2005)   |
|   | PEL     | 1,000 ppm 1,800 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)                |
|   | TWA PEL | 1,000 ppm 1,800 mg/m3 | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
|   | TWA     | 1,000 ppm 1,800 mg/m3 | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)                     |
|   | TWA     | 1,000 ppm 1,800 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)   |
| Butane  | REL     | 800 ppm 1,900 mg/m3   | US. NIOSH: Pocket Guide to Chemical Hazards (2005)   |



|  |         |                     |  |
|--|---------|---------------------|--|
|  | TWA     | 800 ppm 1,900 mg/m3 | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)                     |
|  | STEL    | 1,000 ppm           | US. ACGIH Threshold Limit Values (03 2018)   |
|  | TWA     | 800 ppm 1,900 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)   |
|  | AN ESL  | 3,000 ppb           | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|  | AN ESL  | 7,100 µg/m3         | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|  | TWA PEL | 800 ppm 1,900 mg/m3 | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
|  | ST ESL  | 66,000 µg/m3        | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|  | ST ESL  | 28,000 ppb          | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
| Benzene, 1,1'-oxybis- - Vapor.                   | STEL    | 2 ppm               | US. ACGIH Threshold Limit Values (03 2018)   |
|  | TWA     | 1 ppm               | US. ACGIH Threshold Limit Values (03 2018)   |
|  | PEL     | 1 ppm 7 mg/m3       | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)                |
|  | TWA PEL | 1 ppm 7 mg/m3       | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
|  | REL     | 1 ppm 7 mg/m3       | US. NIOSH: Pocket Guide to Chemical Hazards (2005)   |
|  | TWA     | 1 ppm 7 mg/m3       | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)   |
| Benzene, 1,1'-oxybis-                            | ST ESL  | 70 µg/m3            | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|  | AN ESL  | 7 µg/m3             | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
| Benzene, 1,1'-oxybis- - Vapor.                   | TWA     | 1 ppm 7 mg/m3       | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)                     |
| Benzene, 1,1'-oxybis-                            | ST ESL  | 10 ppb              | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|  | AN ESL  | 1 ppb               | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
| Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene- | AN ESL  | 63 ppb              | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|  | AN ESL  | 350 µg/m3           | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|  | ST ESL  | 3,500 µg/m3         | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|  | ST ESL  | 630 ppb             | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|  | TWA     | 20 ppm              | US. ACGIH Threshold Limit Values (2008)  |
| Ammonium hydroxide ((NH4)(OH))                   | AN ESL  | 92 µg/m3            | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|  | ST ESL  | 180 µg/m3           | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|  | STEL    | 35 ppm              | US. ACGIH Threshold Limit Values (2008)  |
|  | TWA     | 25 ppm              | US. ACGIH Threshold Limit Values (2008)  |
|  | TWA PEL | 25 ppm 18 mg/m3     | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |



|  |      |        |          |  |
|--|------|--------|----------|--|
|  | STEL | 35 ppm | 27 mg/m3 | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
|  | STEL | 35 ppm | 27 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)   |
|  | STEL | 35 ppm | 27 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards (2005)   |
|  | REL  | 25 ppm | 18 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards (2005)   |
|  | PEL  | 50 ppm | 35 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)                |

**Appropriate Engineering Controls** No data available.

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

- General information:** Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
- Eye/face protection:** Wear goggles/face shield.
- Skin Protection**
- Hand Protection:** No data available.
- Other:** 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:** When using do not smoke. Observe good industrial hygiene practices. 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.



|   |                                     |
|---|-------------------------------------|
| <b>Explosive limit - lower (%):</b>             | No data available.                  |
| <b>Vapor pressure:</b>                          | 6,205.2815 - 6,894.7572 hPa (20 °C) |
| <b>Vapor density:</b>                           | No data available.                  |
| <b>Density:</b>                                 | No data available.                  |
| <b>Relative density:</b>                        | No data available.                  |
| <b>Solubility(ies)</b>                          |                                     |
| <b>Solubility in water:</b>                     | No data available.                  |
| <b>Solubility (other):</b>                      | No data available.                  |
| <b>Partition coefficient (n-octanol/water):</b> | No data available.                  |
| <b>Auto-ignition temperature:</b>               | No data available.                  |
| <b>Decomposition temperature:</b>               | No data available.                  |
| <b>Viscosity:</b>                               | No data available.                  |

## 10. Stability and reactivity

|  |   |
|--|---|
| <b>Reactivity:</b>                         | No data available.                          |
| <b>Chemical Stability:</b>                 | Material is stable under normal conditions. |
| <b>Possibility of hazardous reactions:</b> | No data available.                          |
| <b>Conditions to avoid:</b>                | Avoid heat or contamination.                |
| <b>Incompatible Materials:</b>             | No data available.                          |
| <b>Hazardous Decomposition Products:</b>   | No data available.                          |

## 11. Toxicological information

### Information on likely routes of exposure

|                      |                    |
|----------------------|--------------------|
| <b>Inhalation:</b>   | No data available. |
| <b>Skin Contact:</b> | No data available. |
| <b>Eye contact:</b>  | No data available. |
| <b>Ingestion:</b>    | No data available. |

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

|                      |                    |
|----------------------|--------------------|
| <b>Inhalation:</b>   | No data available. |
| <b>Skin Contact:</b> | No data available. |
| <b>Eye contact:</b>  | No data available. |
| <b>Ingestion:</b>    | 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):

Distillates (petroleum),  
hydrotreated light LD 50 (Rat): > 5,000 mg/kg

Ethanone, 1-  
(1,2,3,4,5,6,7,8-  
octahydro-2,3,8,8-  
tetramethyl-2-  
naphthalenyl)- LD 50: > 2,000 mg/kg

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

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

Benzoic acid, 2-hydroxy-,  
phenylmethyl ester LD 50 (Rat): 3,031 mg/kg

Benzene, 1,1'-oxybis- LD 50 (Rat): 2.83 g/kg

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

Bicyclo[3.1.1]heptane,  
6,6-dimethyl-2-  
methylene- LD 50 (Rat): 3,700 mg/kg

### Dermal

**Product:** Not classified for acute toxicity based on available data.

#### Specified substance(s):

Distillates (petroleum),  
hydrotreated light LD 50 (Rabbit): > 2,000 mg/kg

Ethanone, 1-  
(1,2,3,4,5,6,7,8-  
octahydro-2,3,8,8-  
tetramethyl-2-  
naphthalenyl)- LD 50: > 2,000 mg/kg

Cyclohexene, 1-methyl-4-  
(1-methylethenyl)-, (4R)- LD 50 (Rabbit): > 5,000 mg/kg

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

Benzoic acid, 2-hydroxy-,  
phenylmethyl ester LD 50 (Rabbit): > 2,000 mg/kg

Benzene, 1,1'-oxybis- LD 50 (Rabbit): > 7,940 mg/kg

2,6-Octadien-1-ol, 3,7-  
dimethyl-, (2E)- LD 50 (Rabbit): > 5,000 mg/kg

Bicyclo[3.1.1]heptane, LD 50 (Rabbit): > 5,000 mg/kg



6,6-dimethyl-2-methylene-

**Inhalation**

**Product:** Not classified for acute toxicity based on available data.

**Specified substance(s):**

|   |                                     |
|---|-------------------------------------|
| Distillates (petroleum), hydrotreated light                                 | LC 50: > 5 mg/l<br>LC 50: > 20 mg/l |
| Propane   | LC 50 (Mouse): 1,237 mg/l           |
| Butane  | LC 50 (Mouse): 1,237 mg/l           |
| Ethanone, 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)- | LC 50: > 5 mg/l<br>LC 50: > 20 mg/l |
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-                           | LC 50: > 20 mg/l<br>LC 50: > 5 mg/l |
| Octanal, 2-(phenylmethylene)-   | LC 50: > 20 mg/l                    |
| Benzene, 1,1'-oxybis-   | LC 50: > 20 mg/l                    |
| 2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-                                     | LC 50: > 20 mg/l<br>LC 50: > 5 mg/l |

**Repeated dose toxicity**

**Product:** No data available.

**Specified substance(s):**

|   |   |
|---|---|
| Distillates (petroleum), hydrotreated light       | NOAEL (Rat(Female, Male), Inhalation): $\geq$ 24 mg/m <sup>3</sup> Inhalation Experimental result, Key study<br>NOAEL (Rat(Female), Oral, 70 - 147 d): 750 mg/kg Oral Experimental result, Key study                      |
| Propane   | NOAEL (Rat(Female, Male), Inhalation, $\geq$ 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study<br>LOAEL (Rat(Female, Male), Inhalation, $\geq$ 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study |
| Butane  | NOAEL (Rat(Female, Male), Inhalation, $\geq$ 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study<br>LOAEL (Rat(Female, Male), Inhalation, $\geq$ 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study |
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- | NOAEL (Rat(Male), Oral, 13 Weeks): 600 mg/kg Oral Experimental result, Key study  |
| Benzoic acid, 2-hydroxy-, phenylmethyl ester      | NOAEL (Rat(Female), Oral, 102 - 131 d): 360 mg/kg Oral Read-across from supporting substance (structural analogue or surrogate), Key study  |
| Benzene, 1,1'-oxybis-                             | NOAEL (Rat(Female, Male), Dermal, 13 Weeks): 100 mg/kg Dermal Experimental result, Key study<br>NOAEL (Rat(Male), Oral, 13 Weeks): 301 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<br>NOAEL (Rat(Female, Male), Dermal): 300 mg/kg Dermal Experimental   |



Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene-  
result, Key study  
LOAEL (Rat(Male), Inhalation, 14 Weeks): 25 ppm(m) Inhalation Read-across from supporting substance (structural analogue or surrogate), Key study  
NOAEL (Rat(Female), Inhalation, 14 Weeks): 200 ppm(m) Inhalation Read-across from supporting substance (structural analogue or surrogate), Key study

#### Skin Corrosion/Irritation

**Product:** No data available.

**Specified substance(s):**

Distillates (petroleum), hydrotreated light in vivo (Rabbit): Not irritant Experimental result, Key study

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- in vivo (Rabbit): Not irritant Experimental result, Key study

Benzoic acid, 2-hydroxy-, phenylmethyl ester in vivo (Rabbit): Not irritant Experimental result, Weight of Evidence study

Benzene, 1,1'-oxybis- in vivo (Rabbit): Not irritant Experimental result, Key study

2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)- in vivo (Rabbit): Irritating Experimental result, Key study

Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene- In vitro (Human): Irritating Experimental result, Key study

#### Serious Eye Damage/Eye Irritation

**Product:** No data available.

**Specified substance(s):**

Distillates (petroleum), hydrotreated light Rabbit, 24 - 72 hrs: Not irritating

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

Benzene, 1,1'-oxybis- Rabbit, 48 - 72 hrs: Irritating.

Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene- Rabbit, 24 - 72 hrs: Not irritating

#### Respiratory or Skin Sensitization

**Product:** No data available.

**Specified substance(s):**

Distillates (petroleum), hydrotreated light Skin sensitization:, in vivo (Guinea pig): Non sensitising



Benzene, 1,1'-oxybis- Skin sensitization:, in vivo (Guinea pig): Non sensitising  
Skin sensitization:, in vivo (Human): Non sensitising  
Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene- 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

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Specified substance(s):**

Distillates (petroleum), hydrotreated light May be fatal if swallowed and enters airways.

**Other effects:** No data available.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Specified substance(s):**

Distillates (petroleum), LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 2.9



|   |   |
|---|---|
| hydrotreated light                                | mg/l Mortality<br>NOAEL (Oncorhynchus mykiss, 96 h): 2 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   |
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- | EC 50 (Pimephales promelas, 96 h): 688 µg/l Experimental result, Key study  |
| Octanal, 2-(phenylmethylene)-                     | LC 50 (96 h): < 1 mg/l Review   |
| Benzoic acid, 2-hydroxy-, phenylmethyl ester      | LC 50 (Danio rerio, 96 h): 1.03 mg/l Experimental result, Key study   |
| Benzene, 1,1'-oxybis-                             | LC 50 (Oncorhynchus mykiss, 96 h): 4.2 mg/l Experimental result, Key study  |
| 2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-           | LC 0 (Danio rerio, 96 h): 10 mg/l Experimental result, Key study<br>LC 50 (Danio rerio, 96 h): +/- 22 mg/l Experimental result, Key study |
| Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene-  | LC 50 (Pimephales promelas, 96 h): 502 µg/l Experimental result, Supporting study   |

#### Aquatic Invertebrates

**Product:**

No data available.

**Specified substance(s):**

|   |  |
|---|--|
| Distillates (petroleum), hydrotreated light       | EC 50 (Daphnia magna, 24 h): 4.6 mg/l Experimental result, Key study<br>NOAEL (Daphnia magna, 48 h): 0.3 mg/l Experimental result, Key study<br>EC 50 (Daphnia magna, 48 h): 1.4 mg/l Experimental result, Key study |
| Butane  | LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study   |
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- | EC 50 (Daphnia magna, 48 h): 0.36 mg/l Experimental result, Key study<br>NOAEL (Daphnia magna, 48 h): 0.074 mg/l Experimental result, Key study  |
| Benzoic acid, 2-hydroxy-, phenylmethyl ester      | EC 50 (Daphnia magna, 48 h): 1.16 mg/l Experimental result, Key study<br>NOAEL (Daphnia magna, 48 h): 0.894 mg/l Experimental result, Key study  |
| Benzene, 1,1'-oxybis-                             | LC 50 (Daphnia magna, 48 h): 1.7 mg/l Experimental result, Key study<br>NOAEL (Daphnia magna, 48 h): 1 mg/l Experimental result, Key study   |
| 2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-           | EC 50 (Daphnia magna, 48 h): 10.8 mg/l Experimental result, Key study  |
| Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene-  | EC 50 (Daphnia magna, 48 h): 1,250 µg/l Experimental result, Supporting study  |

#### Chronic hazards to the aquatic environment:

##### Fish

**Product:**

No data available.

**Specified substance(s):**

|   |  |
|---|--|
| Distillates (petroleum), hydrotreated light | NOAEL (Oncorhynchus mykiss): 0.098 mg/l QSAR QSAR, Key study |
|---|--|



Octanal, 2-(phenylmethylene)- NOEC (21 d): < 10 mg/l Review

#### Aquatic Invertebrates

**Product:** No data available.

**Specified substance(s):**

Distillates (petroleum), hydrotreated light NOAEL (Daphnia magna): 1.2 mg/l Experimental result, Key study  
EC 50 (Daphnia magna): 0.81 mg/l Experimental result, Key study

Ethanone, 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)- EC 50 : < 10 mg/l estimation

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- NOAEL (Freshwater invertebrates, species frequently include Daphnia magna or Daphnia pulex): 0.115 mg/l QSAR QSAR, Weight of Evidence study

#### Toxicity to Aquatic Plants

**Product:** No data available.

#### Persistence and Degradability

##### Biodegradation

**Product:** No data available.

**Specified substance(s):**

Distillates (petroleum), hydrotreated light 61 % Detected in water. Experimental result, Supporting 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

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- 80 % (28 d) Detected in water. Read-across from supporting substance (structural analogue or surrogate), Key study

Benzoic acid, 2-hydroxy-, phenylmethyl ester 93 % (28 d) Detected in water. Experimental result, Key study

Benzene, 1,1'-oxybis- 76 % Detected in water. Experimental result, Key study

2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)- 90 - 100 % (3 d) Detected in water. Experimental result, Key study  
94 % (28 d) Detected in water. Experimental result, Supporting study

Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene- 76 % (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):**

|   |   |
|---|---|
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- | Bioconcentration Factor (BCF): 864.8 Aquatic sediment QSAR, Key study                                   |
| Benzoic acid, 2-hydroxy-, phenylmethyl ester      | Bioconcentration Factor (BCF): 311 Aquatic sediment QSAR, Supporting study                              |
| Benzene, 1,1'-oxybis-                             | Oncorhynchus mykiss, Bioconcentration Factor (BCF): 200 Aquatic sediment Experimental result, Key study |
| Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene-  | Bioconcentration Factor (BCF): 1,163 Aquatic sediment QSAR, Key study                                   |

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

**Product:** No data available.

**Specified substance(s):**

|   |   |
|---|---|
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (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**

|   |                    |
|---|--------------------|
| Distillates (petroleum), hydrotreated light                                 | No data available. |
| Propane   | No data available. |
| Butane  | No data available. |
| Ethanone, 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)- | No data available. |
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-                           | No data available. |
| Octanal, 2-(phenylmethylene)-   | No data available. |
| Benzoic acid, 2-hydroxy-, phenylmethyl ester                                | No data available. |
| Benzene, 1,1'-oxybis-   | No data available. |
| 2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-                                     | No data available. |
| Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene-                            | No data available. |

**Other adverse effects:** Harmful to aquatic life with long lasting effects.

**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

**Restrictions on use:** Not known.

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

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

#### CERCLA Hazardous Substance List (40 CFR 302.4):



| <u>Chemical Identity</u>       | <u>Reportable quantity</u> |
|--------------------------------|----------------------------|
| Propane                        | lbs. 100                   |
| Butane                         | lbs. 100                   |
| Ammonium hydroxide ((NH4)(OH)) | lbs. 1000                  |

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

**Hazard categories**

- Fire Hazard
- Immediate (Acute) Health Hazards
- Flammable aerosol
- Skin sensitizer
- Aspiration Hazard

**SARA 302 Extremely Hazardous Substance**

| <u>Chemical Identity</u>                    | <u>Reportable quantity</u> | <u>Threshold Planning Quantity</u> |
|---|----------------------------|------------------------------------|
| Distillates (petroleum), hydrotreated light |                            |                                    |

**SARA 304 Emergency Release Notification**

| <u>Chemical Identity</u>                    | <u>Reportable quantity</u> |
|---|----------------------------|
| Distillates (petroleum), hydrotreated light |                            |
| Propane                                     | lbs. 100                   |
| Butane                                      | lbs. 100                   |
| Ammonium hydroxide ((NH4)(OH))              | lbs. 1000                  |

**SARA 311/312 Hazardous Chemical**

| <u>Chemical Identity</u>  | <u>Threshold Planning Quantity</u> |
|---|------------------------------------|
| Distillates (petroleum), hydrotreated light                                 | 10000 lbs                          |
| Propane   | 10000 lbs                          |
| Butane  | 10000 lbs                          |
| Ethanone, 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)- | 10000 lbs                          |
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-                           | 10000 lbs                          |
| Octanal, 2-(phenylmethylene)-   | 10000 lbs                          |
| Benzoic acid, 2-hydroxy-, phenylmethyl ester                                | 10000 lbs                          |
| Benzene, 1,1'-oxybis-   | 10000 lbs                          |
| 2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-                                     | 10000 lbs                          |
| Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene-                            | 10000 lbs                          |
| Ammonium hydroxide ((NH4)(OH))  | 10000 lbs                          |

**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):**

SDS\_US - RE1000011815



---

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)  
US State Regulations**

**US. California Proposition 65**

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

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

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

**Chemical Identity**

Distillates (petroleum), hydrotreated light  
Propane  
Butane

**US. Massachusetts RTK - Substance List**

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

**US. Pennsylvania RTK - Hazardous Substances**

**Chemical Identity**

Distillates (petroleum), hydrotreated light  
Propane  
Butane

**US. Rhode Island RTK**

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

**International regulations**

**Montreal protocol**

Distillates (petroleum),  
hydrotreated light

**Stockholm convention**

Distillates (petroleum),  
hydrotreated light

**Rotterdam convention**

Distillates (petroleum),  
hydrotreated light

**Kyoto protocol**



**Inventory Status:**

|  |  |
|--|--|
| Australia AICS:                          | On or in compliance with the inventory |
| Canada DSL Inventory List:               | On or in compliance with the inventory |
| EINECS, ELINCS or NLP:                   | Not in compliance with the inventory.  |
| Japan (ENCS) List:                       | Not in compliance with the inventory.  |
| China Inv. Existing Chemical Substances: | Not in compliance with the inventory.  |
| Korea Existing Chemicals Inv. (KECI):    | Not in compliance with the inventory.  |
| Canada NDSL Inventory:                   | Not in compliance with the inventory.  |
| Philippines PICCS:                       | On or in compliance with the inventory |
| US TSCA Inventory:                       | On or in compliance with the inventory |
| New Zealand Inventory of Chemicals:      | On or in compliance with the inventory |
| Japan ISHL Listing:                      | Not in compliance with the inventory.  |
| Japan Pharmacopoeia Listing:             | Not in compliance with the inventory.  |
| Mexico INSQ:                             | Not in compliance with the inventory.  |
| Ontario Inventory:                       | On or in compliance with the inventory |
| Taiwan Chemical Substance Inventory:     | On or in compliance with the inventory |

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

|                              |   |
|------------------------------|---|
| <b>Issue Date:</b>           | 08/15/2019  |
| <b>Revision Information:</b> | No data available.  |
| <b>Version #:</b>            | 1.0   |
| <b>Further Information:</b>  | No data available.  |
| <b>Disclaimer:</b>           | This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment. |