SAFETY DATA SHEET

1. Identification

Product identifier: CLAIRE DEGREASER BRAKE CLEANER

Other means of identification
SDS number: RE1000029336

Recommended restrictions
Product Use: Cleaner
Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Manufacturer
Company Name: CLAIRE MANUFACTURING COMPANY
Address: 1000 Integrarum 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
  Skin Corrosion/Irritation
  Serious Eye Damage/Eye Irritation
  Specific Target Organ Toxicity - Single Exposure

Target Organs
  1. Narcotic effect.

Environmental Hazards
  Acute hazards to the aquatic environment

Label Elements

Hazard Symbol:
Signal Word: Danger

Hazard Statement: Extremely flammable aerosol. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Toxic 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. 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 occurs: Get medical advice/attention. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see on this label). Take off contaminated clothing.

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>20 - &lt;50%</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated light</td>
<td>64742-49-0</td>
<td>25 - &lt;50%</td>
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<tr>
<td>Heptane</td>
<td>142-82-5</td>
<td>10 - &lt;20%</td>
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<tr>
<td>Carbon dioxide</td>
<td>124-38-9</td>
<td>5 - &lt;10%</td>
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<tr>
<td>Cyclohexane, methyl-</td>
<td>108-87-2</td>
<td>1 - &lt;5%</td>
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<tr>
<td>Benzene, ethyl-</td>
<td>100-41-4</td>
<td>0 - &lt;0.1%</td>
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<tr>
<td>Cyclohexane</td>
<td>110-82-7</td>
<td>0 - &lt;0.1%</td>
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<tr>
<td>Hexane</td>
<td>110-54-3</td>
<td>0 - &lt;0.1%</td>
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<tr>
<td>Benzene, methyl-</td>
<td>108-88-3</td>
<td>0 - &lt;0.1%</td>
</tr>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>0 - &lt;0.1%</td>
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</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:**
Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. 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. Avoid contact with skin.

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

<table>
<thead>
<tr>
<th>Occupational Exposure Limits</th>
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<tbody>
<tr>
<td>Chemical Identity</td>
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<tr>
<td>2-Propanone</td>
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<td>MAX. CONC</td>
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</tbody>
</table>
AN ESL 4.5 µg/m3 US, Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Ceiling 50 ppm US, Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)

### Biological Limit Values

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanone (acetone: Sampling time: End of shift.)</td>
<td>25 mg/l (Urine)</td>
<td>ACGIH BEL (03 2015)</td>
</tr>
<tr>
<td>Benzene, ethyl- (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.)</td>
<td>0.15 g/g (Creatinine in urine)</td>
<td>ACGIH BEL (02 2014)</td>
</tr>
<tr>
<td>Hexane (2,5-Hexanediol, without hydrolysis: Sampling time: End of shift.)</td>
<td>0.5 mg/l (Urine)</td>
<td>ACGIH BEL (03 2018)</td>
</tr>
<tr>
<td>Benzene, methyl- (toluene: Sampling time: End of shift.)</td>
<td>0.03 mg/l (Urine)</td>
<td>ACGIH BEL (03 2013)</td>
</tr>
<tr>
<td>Benzene, methyl- (o-Cresol, with hydrolysis: Sampling time: End of shift.)</td>
<td>0.3 mg/g (Creatinine in urine)</td>
<td>ACGIH BEL (03 2013)</td>
</tr>
<tr>
<td>Benzene, methyl- (toluene: Sampling time: Prior to last shift of work week.)</td>
<td>0.02 mg/l (Blood)</td>
<td>ACGIH BEL (03 2013)</td>
</tr>
<tr>
<td>Benzene (t,t-Muconic acid: Sampling time: End of shift.)</td>
<td>500 µg/g (Creatinine in urine)</td>
<td>ACGIH BEL (03 2013)</td>
</tr>
<tr>
<td>Benzene (S-PHENYL Mercapturic acid: Sampling time: End of shift.)</td>
<td>25 µg/g (Creatinine in urine)</td>
<td>ACGIH BEL (03 2013)</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. Wash contaminated clothing before reuse. Avoid contact with skin. Wash hands before breaks and immediately after handling the product.
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.
PpH: No data available.

Melting point/freezing point: No data available.
Initial boiling point and boiling range: No data available.
Flash Point: > -17 °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: 5,515.8058 - 6,894.7573 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
Naphtha (petroleum), hydrotreated light LD 50 (Rat): > 5,000 mg/kg
Heptane LD 50 (Rat): > 5,000 mg/kg
Cyclohexane, methyl- LD Lo (Rabbit): 4,000 - 4,500 mg/kg
Benzene, ethyl- LD 50 (Rat): 5.46 g/kg
LD 50 (Rat): 3,500 mg/kg
Cyclohexane LD 50 (Rat): > 5,000 mg/kg
Hexane LD 50: > 2,000 mg/kg
Benzene, methyl- LD 50 (Rat): 5,580 mg/kg
Benzene

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

**Specified substance(s):**
- 2-Propanone: LD 50 (Rabbit): > 7,426 mg/kg
- Naphtha (petroleum), hydrotreated light: LD 50 (Rabbit): > 3,750 mg/kg
- Heptane: LD 50 (Rabbit): > 2,000 mg/kg
- Cyclohexane, methyl-: LD 50 (Rabbit): > 2,000 mg/kg
- Benzene, ethyl-: ATE: > 2,000 mg/kg
- Cyclohexane: LD 50 (Rabbit): > 2,000 mg/kg
- Hexane: LD 50 (Rabbit): > 2,000 mg/kg
- Benzene, methyl-: LD 50 (Rabbit): > 5,000 mg/kg
- Benzene: LD 50: > 2,000 mg/kg

**Inhalation Product:**
ATEmix: 857.74 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
- Naphtha (petroleum), hydrotreated light: LOAEL (Rat(Female, Male), Oral, 13 Weeks): 1,250 mg/kg Oral Read-across based on grouping of substances (category approach), Key study NOAEL (Rat(Female, Male), Dermal, 28 d): > 375 mg/kg Dermal Experimental result, Supporting study NOAEL (Rat(Female, Male), Inhalation): 10,000 mg/m³ Inhalation Experimental result, Key study
- Heptane: NOAEL (Rat(Male), Inhalation): 12,470 mg/m³ Inhalation Experimental result, Key study
- Cyclohexane, methyl-: LOAEL (Rat(Female, Male), Oral, 28 d): 1,000 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female, Male), Oral, 28 d): 250 mg/kg Oral Experimental result, Key study
Benzene, ethyl-
NOAEL (Rat(Female, Male), Inhalation): 1,600 mg/m3 Inhalation Experimental result, Key study

NOAEL (Rabbit, Inhalation): 0.1 mg/l Inhalation Experimental result, Supporting study
NOAEL (Rabbit(Female, Male), Inhalation, 186 - 214 d): 400 ppm(m) Inhalation Experimental result, Supporting study
NOAEL (Mouse(Female, Male), Inhalation, 104 Weeks): 75 ppm(m) Inhalation Experimental result, Key study
LOAEL (Rat(Female, Male), Inhalation, <= 6 Months): 400 ppm(m) Inhalation Experimental result, Supporting study
NOAEL (Rat(Female, Male), Oral, 28 d): 75 mg/kg Oral Experimental result, Key study

Cyclohexane
NOAEL (Rat(Female, Male), Inhalation, 13 - 18 Weeks): 7,000 ppm(m) Inhalation Experimental result, Key study
NOAEL (Mouse(Female, Male), Inhalation, 13 - 18 Weeks): 500 ppm(m) Inhalation Experimental result, Key study

Hexane
NOAEL (Mouse(Male), Inhalation, 13 Weeks): 500 ppm(m) Inhalation Experimental result, Key study
LOAEL (Mouse(Male), Inhalation, 13 Weeks): 1,000 ppm(m) Inhalation Experimental result, Key study
LOAEL (Rat(Male), Inhalation, 16 Weeks): 3,000 ppm(m) Inhalation Experimental result, Key study
LOAEL (Mouse(Female, Male), Inhalation, 13 Weeks): 500 ppm(m) Inhalation Experimental result, Key study

Benzene, methyl-
LOAEL (Rat(Female, Male), Oral, 13 Weeks): 1,250 mg/kg (Target Organ(s): Liver, Kidney) Oral Experimental result, Key study
NOAEL (Rat(Female, Male), Inhalation): 625 ppm(m) Inhalation Experimental result, Key study
NOAEL (Rat(Female, Male), Inhalation - vapor): 2,355 mg/l Inhalation Experimental result, Key study

Benzene
NOAEL (Rat(Male), Oral, 120 d): 100 mg/kg Oral Experimental result, Key study
NOAEL (Mouse(Female, Male), Inhalation, 7 - 91 d): 96 mg/m3 Inhalation Experimental result, Key study
LOAEL (Rat(Female, Oral, 120 d): 25 mg/kg Oral Experimental result, Key study

Skin Corrosion/Irritation
Product:
No data available.

Specified substance(s):
- 2-Propanone: in vivo (Rabbit): Not irritant Experimental result, Supporting study
- Heptane: in vivo (Rabbit): Irritating Read-across based on grouping of substances (category approach), Key study
- Cyclohexane, methyl-: in vivo (Rabbit): Not irritant Experimental result, Weight of Evidence study
- Cyclohexane: Review (Various): Irritating,
in vivo (Rabbit): Not irritant Experimental result, Weight of Evidence study
- Benzene, methyl-: in vivo (Rabbit): Irritating Experimental result, Key study
- Benzene: in vivo (Rabbit): Irritating 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
- Naphtha (petroleum), hydrotreated light: Rabbit, 24 - 72 hrs: Not irritating
- Heptane: Rabbit, 24 - 72 hrs: Not irritating
- Cyclohexane, methyl-: Rabbit, 0.5 - 168 hrs: Not irritating
- Benzene, ethyl-: Rabbit, 7 d: Slightly irritating
- Hexane: Rabbit, 1 - 72 hrs: Not irritating
- Benzene, methyl-: Rabbit, 24 - 72 hrs: Not irritating
- Benzene: Rabbit: Irritating

Respiratory or Skin Sensitization

**Product:**
No data available.

**Specified substance(s):**

- 2-Propanone: Skin sensitization:, in vivo (Guinea pig): Non sensitising
- Naphtha (petroleum), hydrotreated light: Skin sensitization:, in vivo (Guinea pig): Non sensitising
- Heptane: Skin sensitization:, in vivo (Guinea pig): Non sensitising
- Cyclohexane, methyl-: Skin sensitization:, in vivo (Guinea pig): Non sensitising
- Benzene, ethyl-: Skin sensitization:, in vivo (Human): Non sensitising
- Cyclohexane: Skin sensitization:, in vivo (Guinea pig): Non sensitising
- Benzene, methyl-: Skin sensitization:, in vivo (Guinea pig): Non sensitising

Carcinogenicity

**Product:**
No data available.

**Specified substance(s):**

- Cyclohexane, methyl-: May cause cancer.
- Benzene: Cancer hazard - can cause cancer.

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):**
- Hexane
- Benzene, methyl-
  Suspected of damaging fertility or the unborn child.

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

**Specified substance(s):**
- 2-Propanone
- Heptane
- Cyclohexane, methyl-
- Cyclohexane
- Hexane
- Benzene, methyl-
  Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.

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

**Specified substance(s):**
- Cyclohexane, methyl-
- Hexane
- Benzene, methyl-
- Benzene
  Category 1
  Inhalation - vapor: Nervous System - Category 2
  Causes damage to organs.

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

Aspiration Hazard
Product: No data available.

**Specified substance(s):**
- Naphtha (petroleum), hydrotreated light
- Heptane
- Cyclohexane, methyl-
- Cyclohexane
- Benzene, methyl-
- Benzene
  May be fatal if swallowed and enters airways.

Other effects: No data available.
### 12. Ecological information

#### Ecotoxicity:

**Acute hazards to the aquatic environment:**

<table>
<thead>
<tr>
<th>Fish Product</th>
<th>LC 50 (Oncorhynchus mykiss, 96 h): 5,540 mg/l Experimental result, Key study</th>
</tr>
</thead>
</table>

**Specified substance(s):**

- **2-Propanone**: No data available.
- **Naphtha (petroleum), hydrotreated light**: LC 50 (96 h): 8.41 mg/l Experimental result, Key study
- **Heptane**: LC 50 (Mozambique tilapia (Tilapia mossambica), 96 h): 375 mg/l Mortality
- **Cyclohexane, methyl-**: LC 50 (Oryzias latipes, 96 h): 2.07 mg/l Experimental result, Key study
- **Benzene, ethyl-**: LC 50 (Fathead minnow (Pimephales promelas), 96 h): 38.9 - 62.83 mg/l Mortality
- **Cyclohexane**: LC 50 (Pimephales promelas, 96 h): 4.53 mg/l Experimental result, Key study
- **Hexane**: LC 50 (Fathead minnow (Pimephales promelas), 96 h): 2.101 - 2.981 mg/l Mortality
- **Benzene, methyl-**: LC 50 (Oncorhynchus kisutch, 96 h): 5.5 mg/l Experimental result, Key study
- **Benzene**: LC 50 (Oncorhynchus mykiss, 96 h): 5.3 mg/l Experimental result, Key study

**Aquatic Invertebrates**

<table>
<thead>
<tr>
<th>Product</th>
<th>EC 50 (Daphnia magna, 48 h): 4.5 mg/l Experimental result, Key study</th>
</tr>
</thead>
</table>

**Specified substance(s):**

- **2-Propanone**: LC 50 (Daphnia pulex, 48 h): 8,800 mg/l Experimental result, Key study
- **Naphtha (petroleum), hydrotreated light**: EC 50 (Daphnia magna, 48 h): 4.5 mg/l Experimental result, Key study
- **Heptane**: EC 50 (Daphnia magna, 48 h): 1.5 mg/l Experimental result, Key study
- **Cyclohexane, methyl-**: EC 50 (Daphnia magna, 48 h): 0.326 mg/l Experimental result, Key study
- **Benzene, ethyl-**: LC 50 (Water flea (Daphnia magna), 24 h): 57 - 100 mg/l Mortality
- **Cyclohexane**: EC 50 (Daphnia magna, 48 h): 0.9 mg/l Experimental result, Key study
- **Hexane**: EC 50 (Daphnia magna, 48 h): 21.85 mg/l QSAR QSAR, Key study
- **Benzene, methyl-**: LC 50 (Water flea (Daphnia magna), 48 h): 54.6 - 174.7 mg/l Mortality
- **LC 50 (Ceriodaphnia dubia, 2 d): 3.78 mg/l Experimental result, Key study**
Benzene
EC 50 (Daphnia magna, 24 h): 10 mg/l Experimental result, Key study

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):
- Naphtha (petroleum), hydrotreated light
  - EC 50 (Daphnia magna): 10 mg/l Other, Key study
  - NOAEL (Daphnia magna): 2.6 mg/l Other, Key study
- Heptane
  - NOAEL (Oncorhynchus mykiss): 1.284 mg/l QSAR QSAR, Key study
- Hexane
  - NOAEL (Oncorhynchus mykiss): 2.8 mg/l QSAR QSAR, Key study
- Benzene, methyl-
  - NOAEL (Oncorhynchus kisutch): 1.39 mg/l Experimental result, Key study
  - LOAEL (Oncorhynchus kisutch): 2.77 mg/l Experimental result, Key study
- Benzene
  - LOAEL (Pimephales promelas): 1.6 mg/l Experimental result, Key study
  - LC 50 (Oncorhynchus mykiss): 8.64 mg/l Experimental result, Supporting study

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
- Naphtha (petroleum), hydrotreated light
  - EC 50 (Daphnia magna): 10 mg/l Experimental result, Key study
  - NOAEL (Daphnia magna): 2.6 mg/l Experimental result, Key study
- Heptane
  - NOAEL (Daphnia magna): 0.17 mg/l Read-across based on grouping of substances (category approach), Key study
  - EC 50 (Daphnia magna): 0.23 mg/l Read-across based on grouping of substances (category approach), Key study
- Benzene, ethyl-
  - NOAEL (Ceriodaphnia dubia): 1 mg/l Other, Key study
  - LOAEL (Ceriodaphnia dubia): 1.7 mg/l Other, Key study
  - LC 50 (Ceriodaphnia dubia): 3.6 mg/l Other, Key study
  - IC 50 (Ceriodaphnia dubia): 3.3 mg/l Other, Key study
  - LC 50 (Ceriodaphnia dubia): 3.2 mg/l Other, Key study
- Hexane
  - NOAEL (Daphnia magna): 4.888 mg/l QSAR QSAR, Key study
- Benzene, methyl-
  - LOAEL (Ceriodaphnia dubia): 2.76 mg/l Experimental result, Key study
  - NOAEL (Ceriodaphnia dubia): 0.74 mg/l Experimental result, Key study
- Benzene
  - NOAEL (Daphnia magna): 98 mg/l Not specified, Not specified

Toxicity to Aquatic Plants
Product: No data available.

Persistence and Degradability

Biodegradation

SDS_US - RE1000029336 17/23
Product:  
Specified substance(s):  
2-Propanone  
90.9 % (28 d) Detected in water. Experimental result, Key study  
Naphtha (petroleum), hydrotreated light  
90.35 % (28 d) Detected in water. Experimental result, Supporting study  
Heptane  
70 % Detected in water. Experimental result, Key study  
Cyclohexane, methyl-  
> 0 % (28 d) Detected in water. Experimental result, Weight of Evidence study  
> 0 % (28 d) Detected in water. Experimental result, Weight of Evidence study  
Benzene, ethyl-  
60 % (24 h) Detected in water. Other, Supporting study  
100 % Detected in water. Other, Supporting study  
Cyclohexane  
77 % (28 d) Detected in water. Experimental result, Key study  
Hexane  
81 % Detected in water. Read-across based on grouping of substances (category approach), Key study  
Benzene, methyl-  
100 % (14 d) Detected in water. Experimental result, Weight of Evidence study  
86 % Detected in water. Experimental result, Weight of Evidence study  
Benzene  
4 - 88 % (28 d) Detected in water. Experimental result, Supporting study  
81 % Detected in water. Experimental result, Key study  
BOD/COD Ratio  
Product:  
Bioaccumulative potential  
Bioconcentration Factor (BCF)  
Product:  
Specified substance(s):  
2-Propanone  
Haddock, adult, Bioconcentration Factor (BCF): 0.69 Aquatic sediment Experimental result, Not specified  
Naphtha (petroleum), hydrotreated light  
Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by calculation, Key study  
Heptane  
Bioconcentration Factor (BCF): 552 Aquatic sediment Estimated by calculation, Key study  
Cyclohexane, methyl-  
Cyprinus carpio, Bioconcentration Factor (BCF): > 95 - < 321 Aquatic sediment Experimental result, Key study  
Benzene, ethyl-  
Oncorhynchus kisutch, Bioconcentration Factor (BCF): 1 Aquatic sediment Other, Key study  
Cyclohexane  
Cyprinus carpio, Bioconcentration Factor (BCF): 37 - 129 Aquatic sediment Experimental result, Supporting study
Hexane  Pimephales promelas, Bioconcentration Factor (BCF): 501.19 Aquatic sediment QSAR, Key study
Benzene, methyl-  Leuciscus idus, Bioconcentration Factor (BCF): 90 Aquatic sediment Experimental result, Key study
Benzene  Northern anchovy (Engraulis mordax), Bioconcentration Factor (BCF): 505 (Static)
Engraulis mordax; Morone saxatilis, Bioconcentration Factor (BCF): 309 Aquatic sediment Experimental result, Supporting study

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

Specified substance(s):
- Naphtha (petroleum), Log Kow: > 2.4 - < 5.7 23 °C Yes Experimental result, Key study
- hydrotreated light Log Kow: 2.2 - 5.2 23 °C Yes Experimental result, Key study
- Benzene, ethyl- Log Kow: 3.13 - 3.14 No Other, Supporting study
- Benzene Log Kow: 1.56 - 2.15 25 °C No Not specified, Not specified

Mobility in soil:  No data available.

Known or predicted distribution to environmental compartments
- 2-Propanone No data available.
- Naphtha (petroleum), No data available.
- hydrotreated light
- Heptane No data available.
- Carbon dioxide No data available.
- Cyclohexane, methyl- No data available.
- Benzene, ethyl- No data available.
- Cyclohexane No data available.
- Hexane No data available.
- Benzene, methyl- No data available.
- Benzene No data available.

Other adverse effects:  Toxic 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

SDS_US - RE1000029336
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.: F-D, S-U
Packing Group: –

Environmental Hazards: No
Marine Pollutant: Yes

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: Yes

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)

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>OSHA hazard(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>respiratory tract irritation</td>
</tr>
<tr>
<td></td>
<td>Central nervous system</td>
</tr>
<tr>
<td></td>
<td>Blood</td>
</tr>
<tr>
<td></td>
<td>Skin</td>
</tr>
<tr>
<td></td>
<td>Flammability</td>
</tr>
<tr>
<td></td>
<td>Cancer</td>
</tr>
<tr>
<td></td>
<td>Aspiration</td>
</tr>
<tr>
<td></td>
<td>Eye</td>
</tr>
</tbody>
</table>
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>Heptane</td>
<td>lbs. 100</td>
</tr>
<tr>
<td>Cyclohexane, methyl-</td>
<td>lbs. 100</td>
</tr>
<tr>
<td>Benzene, ethyl-</td>
<td>lbs. 1000</td>
</tr>
<tr>
<td>Cyclohexane</td>
<td>lbs. 1000</td>
</tr>
<tr>
<td>Hexane</td>
<td>lbs. 5000</td>
</tr>
<tr>
<td>Benzene, methyl-</td>
<td>lbs. 1000</td>
</tr>
<tr>
<td>Benzene</td>
<td>lbs. 10</td>
</tr>
</tbody>
</table>

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
- Fire Hazard
- Immediate (Acute) Health Hazards
- Flammable aerosol
- Skin Corrosion/Irritation
- Serious Eye Damage/Eye Irritation
- 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>Heptane</td>
<td>lbs. 100</td>
</tr>
<tr>
<td>Cyclohexane, methyl-</td>
<td>lbs. 100</td>
</tr>
<tr>
<td>Benzene, ethyl-</td>
<td>lbs. 1000</td>
</tr>
<tr>
<td>Cyclohexane</td>
<td>lbs. 1000</td>
</tr>
<tr>
<td>Hexane</td>
<td>lbs. 5000</td>
</tr>
<tr>
<td>Benzene, methyl-</td>
<td>lbs. 1000</td>
</tr>
<tr>
<td>Benzene</td>
<td>lbs. 10</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>Naphtha (petroleum), hydrotreated light</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Heptane</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Cyclohexane, methyl-</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Benzene, ethyl-</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Cyclohexane</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Hexane</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Benzene, methyl-</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Benzene</td>
<td>10000 lbs</td>
</tr>
</tbody>
</table>

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

US State Regulations
US. California Proposition 65
This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

- Benzene, ethyl- Carcinogenic. 05 2011
- Hexane Male reproductive toxin. 12 2017
- Benzene, methyl- Developmental toxin. 03 2008
- Benzene Developmental toxin. 03 2008
- Benzene Carcinogenic. 05 2011
- Benzene Male reproductive toxin. 03 2008

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

**Chemical Identity**
- 2-Propanone
- Naphtha (petroleum), hydrotreated light
- Heptane
- Carbon dioxide
- Cyclohexane, methyl-

US. Massachusetts RTK - Substance List

**Chemical Identity**
- Benzene

US. Pennsylvania RTK - Hazardous Substances

**Chemical Identity**
- 2-Propanone
- Naphtha (petroleum), hydrotreated light
- Heptane
- Carbon dioxide
- Cyclohexane, methyl-

US. Rhode Island RTK
No ingredient regulated by RI Right-to-Know Law present.

International regulations

- Montreal protocol
  - 2-Propanone

- Stockholm convention
  - 2-Propanone

- Rotterdam convention
  - 2-Propanone

- 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: On or in compliance with the inventory

China Existing Chemical Substances: On or in compliance with the inventory

Korea Existing Chemicals Inv. (KECI): On or 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: On or in compliance with the inventory

Japan Pharmacopoeia Listing: Not in compliance with the inventory.

Mexico INSQ: On or 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

Issue Date: 05/23/2019

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.