

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** 53016 FS96 14 OZ SUPERIOR COVER ALL TIRE DRESSING LT 12PK

### Other means of identification

**SDS number:** RE1000036602

### Recommended restrictions

**Product Use:** Coating

**Restrictions on use:** Not known.

### Manufacturer/Importer/Distributor Information

#### Manufacturer

**Company Name:** SUPERIOR PRODUCTS CO., INC  
**Address:** 6962 STATE HIGHWAY 111  
SOUTH ROXANA, IL 62087  
**Telephone:** 1-800-779-8826  
**Fax:**

**Emergency telephone number:** 1-866-836-8855

## 2. Hazard(s) identification

### Hazard Classification

#### Physical Hazards

|                      |               |
|----------------------|---------------|
| Flammable aerosol    | Category 1    |
| Gases under pressure | Liquefied gas |

#### Health Hazards

|   |                         |
|---|-------------------------|
| Skin Corrosion/Irritation                             | Category 2              |
| Toxic to reproduction                                 | Category 2              |
| Specific Target Organ Toxicity -<br>Single Exposure   | Category 3 <sup>1</sup> |
| Specific Target Organ Toxicity -<br>Repeated Exposure | Category 2              |
| Aspiration Hazard                                     | Category 1              |

#### Target Organs

1. Narcotic effect.

#### Environmental Hazards

|   |            |
|---|------------|
| Acute hazards to the aquatic<br>environment | Category 2 |
|---|------------|

## Label Elements

### Hazard Symbol:



### Signal Word:

Danger

### Hazard Statement:

Extremely flammable aerosol.  
Causes skin irritation.  
Suspected of damaging fertility or the unborn child.  
May cause drowsiness or dizziness.  
May cause damage to organs through prolonged or repeated exposure.  
May be fatal if swallowed and enters airways.  
Toxic to aquatic life.  
Contains gas under pressure; may explode if heated.

### Precautionary Statements

#### Prevention:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid release to the environment.

#### Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN: Wash with plenty of water/... If skin irritation occurs: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER/doctor/... Do NOT induce vomiting. 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 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

| Chemical Identity                       | CAS number | Content in percent (%)* |
|---|------------|-------------------------|
| Heptane                                 | 142-82-5   | 25 - <50%               |
| Naphtha (petroleum), hydrotreated light | 64742-49-0 | 10 - <25%               |
| Propane                                 | 74-98-6    | 10 - <20%               |
| Butane                                  | 106-97-8   | 10 - <20%               |
| Hexane                                  | 110-54-3   | 5 - <10%                |
| Benzene, methyl-                        | 108-88-3   | 0.1 - <1%               |
| Cyclohexane                             | 110-82-7   | 0.1 - <1%               |
| Benzene                                 | 71-43-2    | 0 - <0.1%               |

\* 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 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.

**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:** Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

**7. Handling and storage**

**Precautions for safe 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 skin. Wash hands thoroughly after handling.

**Conditions for safe storage, including any incompatibilities:** 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 3

**8. Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

| Chemical Identity | Type | Exposure Limit Values | Source   |
|-------------------|------|-----------------------|--|
| Heptane           | TWA  | 400 ppm 1,600 mg/m3   | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)   |
|                   | STEL | 500 ppm 2,000 mg/m3   | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
|                   | REL  | 85 ppm 350 mg/m3      | US. NIOSH: Pocket Guide to Chemical Hazards (2005)   |
|                   | PEL  | 500 ppm 2,000 mg/m3   | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)                |
|                   | STEL | 500 ppm 2,000 mg/m3   | US. OSHA Table Z-1-A (29 CFR 1910.1000)  |

|   |           |                       |  |
|---|-----------|-----------------------|--|
|   |           |                       | (1989)   |
|   | TWA       | 400 ppm               | US. ACGIH Threshold Limit Values (02 2012)   |
|   | STEL      | 500 ppm               | US. ACGIH Threshold Limit Values (02 2012)   |
|   | TWA       | 400 ppm 1,600 mg/m3   | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)                     |
|   | ST ESL    | 10,000 µg/m3          | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|   | AN ESL    | 2,700 µg/m3           | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|   | ST ESL    | 2,400 ppb             | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|   | Ceil_Time | 440 ppm 1,800 mg/m3   | US. NIOSH: Pocket Guide to Chemical Hazards (2005)   |
|   | TWA PEL   | 400 ppm 1,600 mg/m3   | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
|   | STEL      | 500 ppm 2,000 mg/m3   | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)                     |
|   | AN ESL    | 660 ppb               | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
| Naphtha (petroleum), hydrotreated light | PEL       | 100 ppm 400 mg/m3     | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)                |
|   | TWA PEL   | 300 ppm 1,350 mg/m3   | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (01 2015) |
|   | STEL      | 400 ppm 1,800 mg/m3   | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (01 2015) |
|   | TWA       | 100 ppm 400 mg/m3     | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)                     |
|   | REL       | 100 ppm 400 mg/m3     | US. NIOSH: Pocket Guide to Chemical Hazards (2010)   |
|   | 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)  |
|   | TWA       | 100 ppm 400 mg/m3     | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)   |
| 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)  |
| Hexane           | TWA PEL   | 50 ppm 180 mg/m3    | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
|                  | TWA       | 50 ppm 180 mg/m3    | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)                     |
|                  | TWA       | 50 ppm 180 mg/m3    | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)   |
|                  | PEL       | 500 ppm 1,800 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)                |
|                  | REL       | 50 ppm 180 mg/m3    | US. NIOSH: Pocket Guide to Chemical Hazards (2005)   |
|                  | TWA       | 50 ppm              | US. ACGIH Threshold Limit Values (2008)  |
|                  | AN ESL    | 200 µg/m3           | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|                  | ST ESL    | 6,200 µg/m3         | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|                  | AN ESL    | 57 ppb              | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|                  | ST ESL    | 1,700 ppb           | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
| Benzene, methyl- | STEL      | 150 ppm 560 mg/m3   | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)   |
|                  | TWA PEL   | 10 ppm 37 mg/m3     | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012) |
|                  | REL       | 100 ppm 375 mg/m3   | US. NIOSH: Pocket Guide to Chemical Hazards (2005)   |
|                  | TWA       | 100 ppm 375 mg/m3   | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)   |
|                  | STEL      | 150 ppm 560 mg/m3   | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
|                  | Ceiling   | 300 ppm             | US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)  |
|                  | TWA       | 20 ppm              | US. ACGIH Threshold Limit Values (2008)  |
|                  | Ceiling   | 500 ppm             | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
|                  | AN ESL    | 1,200 µg/m3         | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|                  | TWA       | 200 ppm             | US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)  |
|                  | MAX. CONC | 500 ppm             | US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)  |
|                  | ST ESL    | 4,500 µg/m3         | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|                  | STEL      | 150 ppm 580 mg/m3   | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)                     |
|                  | ST ESL    | 1,200 ppb           | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|                  | TWA       | 100 ppm 375 mg/m3   | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)                     |
|                  | STEL      | 150 ppm 560 mg/m3   | US. NIOSH: Pocket Guide to Chemical Hazards (2005)   |
|                  | AN ESL    | 320 ppb             | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
| Cyclohexane      | TWA       | 100 ppm             | US. ACGIH Threshold Limit Values (2008)  |
|                  | ST ESL    | 3,400 µg/m3         | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|                  | TWA       | 300 ppm 1,050 mg/m3 | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)                     |
|                  | TWA       | 300 ppm 1,050 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)   |

|         |           |                     |  |
|---------|-----------|---------------------|--|
|         | REL       | 300 ppm 1,050 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards (2005)   |
|         | PEL       | 300 ppm 1,050 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)                |
|         | TWA PEL   | 300 ppm 1,050 mg/m3 | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
|         | AN ESL    | 340 µg/m3           | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|         | AN ESL    | 100 ppb             | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|         | ST ESL    | 1,000 ppb           | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
| Benzene | REL       | 0.1 ppm             | US. NIOSH: Pocket Guide to Chemical Hazards (2005)   |
|         | TWA       | 1 ppm               | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)   |
|         | Ceiling   | 25 ppm              | US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)  |
|         | STEL      | 1 ppm               | US. NIOSH: Pocket Guide to Chemical Hazards (2005)   |
|         | TWA A LV  | 0.5 ppm             | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
|         | AN ESL    | 1.4 ppb             | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|         | TWA       | 0.5 ppm             | US. ACGIH Threshold Limit Values (2008)  |
|         | STEL      | 25 ppm              | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)                     |
|         | STEL      | 5 ppm               | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)   |
|         | TWA       | 1 ppm               | US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)               |
|         | STEL      | 5 ppm               | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
|         | TWA PEL   | 1 ppm               | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
|         | ST ESL    | 170 µg/m3           | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|         | TWA       | 10 ppm              | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)                     |
|         | ST ESL    | 53 ppb              | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)  |
|         | STEL      | 2.5 ppm             | US. ACGIH Threshold Limit Values (2008)  |
|         | STEL      | 5 ppm               | US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)               |
|         | OSHA_ACT  | 0.5 ppm             | US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)               |
|         | TWA       | 10 ppm              | US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)  |
|         | MAX. CONC | 50 ppm              | US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)  |
|         | 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

| Chemical Identity  | Exposure Limit Values          | Source              |
|--|--------------------------------|---------------------|
| Hexane (2,5-Hexanedion, without hydrolysis: Sampling time: End of shift.)    | 0.5 mg/l (Urine)               | ACGIH BEL (03 2018) |
| Benzene, methyl- (toluene: Sampling time: End of shift.)                     | 0.03 mg/l (Urine)              | ACGIH BEL (03 2013) |
| Benzene, methyl- (o-Cresol, with hydrolysis: Sampling time: End of shift.)   | 0.3 mg/g (Creatinine in urine) | ACGIH BEL (03 2013) |
| Benzene, methyl- (toluene: Sampling time: Prior to last shift of work week.) | 0.02 mg/l (Blood)              | ACGIH BEL (03 2013) |
| Benzene (t,t-Muconic acid: Sampling time: End of shift.)                     | 500 µg/g (Creatinine in urine) | ACGIH BEL (03 2013) |
| Benzene (S-Phenylmercapturic acid: Sampling time: End of shift.)             | 25 µg/g (Creatinine in urine)  | ACGIH BEL (03 2013) |

**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 suitable protective clothing. 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:** 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. 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.  
**pH:** No data available.



|  |                    |
|--|--------------------|
| <b>Melting point/freezing point:</b>                         | No data available. |
| <b>Initial boiling point and boiling range:</b>              | No data available. |
| <b>Flash Point:</b>  | -104.44 °C         |
| <b>Evaporation rate:</b>                                     | No data available. |
| <b>Flammability (solid, gas):</b>                            | No data available. |
| <b>Upper/lower limit on flammability or explosive limits</b> |                    |
| <b>Flammability limit - upper (%):</b>                       | No data available. |
| <b>Flammability limit - lower (%):</b>                       | No data available. |
| <b>Explosive limit - upper (%):</b>                          | No data available. |
| <b>Explosive limit - lower (%):</b>                          | No data available. |
| <b>Vapor pressure:</b>                                       | No data available. |
| <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. |
|--------------------|--------------------|

**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):

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

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

Hexane LD 50: > 2,000 mg/kg

Benzene, methyl- LD 50 (Rat): 5,580 mg/kg

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

Benzene LD 50 (Rat): 5,970 mg/kg

##### Dermal

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

##### Specified substance(s):

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

Naphtha (petroleum),  
hydrotreated light LD 50 (Rabbit): > 3,750 mg/kg

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

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

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

Benzene LD 50: > 2,000 mg/kg

##### Inhalation

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

**Specified substance(s):**

|   |  |
|---|--|
| Heptane                                 | LC 50 (Rat): > 29.29 mg/l                                |
| Naphtha (petroleum), hydrotreated light | LOAEL (Human): 2,400 mg/m3<br>LC 50 (Rat): > 7,630 mg/m3 |
| Propane                                 | LC 50 (Mouse): 1,237 mg/l                                |
| Butane                                  | LC 50 (Mouse): 1,237 mg/l                                |
| Hexane                                  | LC 50 (Rat): > 31.86 mg/l                                |
| Benzene, methyl-                        | LC 50 (Rat): 28.1 mg/l                                   |
| Cyclohexane                             | LC 50 (Rat): > 32,880 mg/m3                              |
| Benzene                                 | LC 50 (Rat): 43,767 mg/m3                                |

**Repeated dose toxicity**

**Product:** No data available.

**Specified substance(s):**

|   |  |
|---|--|
| Heptane                                 | NOAEL (Rat(Male), Inhalation): 12,470 mg/m3 Inhalation 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<br>NOAEL (Rat(Female, Male), Dermal, 28 d): > 375 mg/kg Dermal Experimental result, Supporting study<br>NOAEL (Rat(Female, Male), Inhalation): 10,000 mg/m3 Inhalation Experimental result, Key study   |
| Propane                                 | NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study<br>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<br>LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study  |
| Hexane                                  | NOAEL (Mouse(Male), Inhalation, 13 Weeks): 500 ppm(m) Inhalation Experimental result, Key study<br>LOAEL (Mouse(Male), Inhalation, 13 Weeks): 1,000 ppm(m) Inhalation Experimental result, Key study<br>LOAEL (Rat(Male), Inhalation, 16 Weeks): 3,000 ppm(m) Inhalation Experimental result, Key study<br>LOAEL (Mouse(Female), 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<br>NOAEL (Rat(Female, Male), Inhalation): 625 ppm(m) Inhalation Experimental result, Key study<br>NOAEL (Rat(Female, Male), Inhalation - vapor): 2,355 mg/l Inhalation   |

|             |   |
|-------------|---|
| Cyclohexane | Experimental result, Key study<br>NOAEL (Rat(Female, Male), Inhalation, 13 - 18 Weeks): 7,000 ppm(m)<br>Inhalation Experimental result, Key study   |
| Benzene     | NOAEL (Mouse(Female, Male), Inhalation, 13 - 18 Weeks): 500 ppm(m)<br>Inhalation Experimental result, Key study<br>NOAEL (Rat(Male), Oral, 120 d): 100 mg/kg Oral Experimental result, Key study<br>NOAEL (Mouse(Female, Male), Inhalation, 7 - 91 d): 96 mg/m3 Inhalation Experimental result, Key study<br>LOAEL (Rat(Female), Oral, 120 d): 25 mg/kg Oral Experimental result, Key study |

#### Skin Corrosion/Irritation

**Product:** No data available.

**Specified substance(s):**

|                  |   |
|------------------|---|
| Heptane          | in vivo (Rabbit): Irritating Read-across based on grouping of substances (category approach), Key study       |
| Benzene, methyl- | in vivo (Rabbit): Irritating Experimental result, Key study   |
| Cyclohexane      | Review (Various): Irritating.<br>in vivo (Rabbit): Not irritant Experimental result, Weight of Evidence study |
| Benzene          | in vivo (Rabbit): Irritating Experimental result, Key study   |

#### Serious Eye Damage/Eye Irritation

**Product:** No data available.

**Specified substance(s):**

|   |                                     |
|---|-------------------------------------|
| Heptane                                 | Rabbit, 24 - 72 hrs: Not irritating |
| Naphtha (petroleum), hydrotreated light | Rabbit, 24 - 72 hrs: Not 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):**

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

#### Carcinogenicity

**Product:** No data available.

**Specified substance(s):**

|         |                                   |
|---------|-----------------------------------|
| 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

**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.

**Specified substance(s):**

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

**Specific Target Organ Toxicity - Single Exposure**

**Product:** Narcotic effect. - Category 3 with narcotic effects.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** Inhalation - vapor: Nervous System - Category 2

**Target Organs**

Specific Target Organ Toxicity - Single Exposure: Narcotic effect.

**Aspiration Hazard**

**Product:** No data available.

**Specified substance(s):**

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

Heptane LC 50 (Mozambique tilapia (Tilapia mossambica), 96 h): 375 mg/l Mortality  
Naphtha (petroleum), LC 50 (96 h): 8.41 mg/l Experimental result, Key study

hydrotreated light

|                  |  |
|------------------|--|
| 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                          |
| 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      |
| Cyclohexane      | LC 50 (Pimephales promelas, 96 h): 4.53 mg/l Experimental result, Key study      |
| Benzene          | LC 50 (Oncorhynchus mykiss, 96 h): 5.3 mg/l Experimental result, Key study       |

#### Aquatic Invertebrates

**Product:** No data available.

#### Specified substance(s):

|   |  |
|---|--|
| Heptane                                 | EC 50 (Daphnia magna, 48 h): 1.5 mg/l Experimental result, Key study   |
| Naphtha (petroleum), hydrotreated light | EC 50 (Daphnia magna, 48 h): 4.5 mg/l Experimental result, Key study   |
| Butane                                  | LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study   |
| Hexane                                  | EC 50 (Daphnia magna, 48 h): 21.85 mg/l QSAR QSAR, Key study<br>LC 50 (Water flea (Daphnia magna), 24 h): > 50 mg/l Mortality                      |
| Benzene, methyl-                        | LC 50 (Water flea (Daphnia magna), 48 h): 54.6 - 174.7 mg/l Mortality<br>LC 50 (Ceriodaphnia dubia, 2 d): 3.78 mg/l Experimental result, Key study |
| Cyclohexane                             | EC 50 (Daphnia magna, 48 h): 0.9 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):

|   |  |
|---|--|
| Heptane                                 | NOAEL (Oncorhynchus mykiss): 1.284 mg/l QSAR QSAR, Key study   |
| Naphtha (petroleum), hydrotreated light | EC 50 (Daphnia magna): 10 mg/l Other, Key study<br>NOAEL (Daphnia magna): 2.6 mg/l Other, 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<br>LOAEL (Oncorhynchus kisutch): 2.77 mg/l Experimental result, Key study     |
| Benzene                                 | LOAEL (Pimephales promelas): 1.6 mg/l Experimental result, Key study<br>LC 50 (Oncorhynchus mykiss): 8.64 mg/l Experimental result, Supporting study |

#### Aquatic Invertebrates

**Product:** No data available.

#### Specified substance(s):

|   |  |
|---|--|
| Heptane                                 | NOAEL (Daphnia magna): 0.17 mg/l Read-across based on grouping of substances (category approach), Key study<br>EC 50 (Daphnia magna): 0.23 mg/l Read-across based on grouping of substances (category approach), Key study |
| Naphtha (petroleum), hydrotreated light | EC 50 (Daphnia magna): 10 mg/l Experimental result, Key study<br>NOAEL (Daphnia magna): 2.6 mg/l Experimental result, 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<br>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**

**Product:** No data available.

**Specified substance(s):**

|   |  |
|---|--|
| Heptane                                 | 70 % Detected in water. Experimental result, Key study   |
| Naphtha (petroleum), hydrotreated light | 90.35 % (28 d) Detected in water. Experimental result, Supporting study  |
| Propane                                 | 100 % (385.5 h) Detected in water. Experimental result, Key study<br>50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study                   |
| Butane                                  | 100 % (385.5 h) Detected in water. Experimental result, Key study<br>50 % (3.19 d) Detected in water. QSAR, Weight of Evidence 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<br>86 % Detected in water. Experimental result, Weight of Evidence study |
| Cyclohexane                             | 77 % (28 d) Detected in water. Experimental result, Key study  |
| Benzene                                 | 4 - 88 % (28 d) Detected in water. Experimental result, Supporting study<br>81 % 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):**

|         |   |
|---------|---|
| Heptane | Bioconcentration Factor (BCF): 552 Aquatic sediment Estimated by calculation, Key study |
|---------|---|

|   |   |
|---|---|
| Naphtha (petroleum), hydrotreated light | Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by calculation, Key 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   |
| Cyclohexane                             | Cyprinus carpio, Bioconcentration Factor (BCF): 37 - 129 Aquatic sediment Experimental result, Supporting study   |
| Benzene                                 | Northern anchovy (Engraulis mordax), Bioconcentration Factor (BCF): 505 (Static)<br>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), hydrotreated light | Log Kow: > 2.4 - < 5.7 23 °C Yes Experimental result, Key study<br>Log Kow: 2.2 - 5.2 23 °C Yes Experimental result, Key study<br>Log Kow: 2.2 - 6.1 23 °C Yes Experimental result, Key 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**

|   |                    |
|---|--------------------|
| Heptane                                 | No data available. |
| Naphtha (petroleum), hydrotreated light | No data available. |
| Propane                                 | No data available. |
| Butane                                  | No data available. |
| Hexane                                  | No data available. |
| Benzene, methyl-                        | No data available. |
| Cyclohexane                             | 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 |
| 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)

Chemical Identity

OSHA hazard(s)

Benzene  
respiratory tract irritation  
Central nervous system  
Blood  
Skin  
Flammability  
Cancer  
Aspiration  
Eye

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

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--------------------------|----------------------------|
| Heptane                  | lbs. 100                   |
| Propane                  | lbs. 100                   |
| Butane                   | lbs. 100                   |
| Hexane                   | lbs. 5000                  |
| Benzene, methyl-         | lbs. 1000                  |
| Cyclohexane              | lbs. 1000                  |
| Benzene                  | lbs. 10                    |

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

**Hazard categories**

Fire Hazard  
Immediate (Acute) Health Hazards  
Delayed (Chronic) Health Hazard  
Flammable aerosol  
Skin Corrosion/Irritation  
Toxic to reproduction  
Specific Target Organ Toxicity - Single Exposure  
Specific Target Organ Toxicity - Repeated Exposure  
Aspiration Hazard

**SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.

**SARA 304 Emergency Release Notification**

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--------------------------|----------------------------|
| Heptane                  | lbs. 100                   |
| Propane                  | lbs. 100                   |
| Butane                   | lbs. 100                   |
| Hexane                   | lbs. 5000                  |
| Benzene, methyl-         | lbs. 1000                  |
| Cyclohexane              | lbs. 1000                  |
| Benzene                  | lbs. 10                    |

**SARA 311/312 Hazardous Chemical**

| <u>Chemical Identity</u>                   | <u>Threshold Planning Quantity</u> |
|--|------------------------------------|
| Heptane                                    | 10000 lbs                          |
| Naphtha (petroleum),<br>hydrotreated light | 10000 lbs                          |
| Propane                                    | 10000 lbs                          |
| Butane                                     | 10000 lbs                          |
| Hexane                                     | 10000 lbs                          |
| Benzene, methyl-                           | 10000 lbs                          |
| Cyclohexane                                | 10000 lbs                          |
| Benzene                                    | 10000 lbs                          |

**SARA 313 (TRI Reporting)**

| <u>Chemical Identity</u> | <u>Reporting threshold for other users</u> | <u>Reporting threshold for manufacturing and processing</u> |
|--------------------------|--|---|
|--------------------------|--|---|



**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 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:                      | 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 |

|  |
|--|
| <b>16. Other information, including date of preparation or last revision</b> |
|--|

|                              |   |
|------------------------------|---|
| <b>Issue Date:</b>           | 06/04/2019  |
| <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. |