SECTION 1: Product and company identification

Product name: Citru Solv 2000
Use of the substance/mixture: Solvent
Product code: K8
Company: Kayline Company
P.O. Box 603207
Cleveland, Ohio 44103
T: (216) 566-9858
Emergency number: Infotrac: (800) 535-5053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Flam. Liq. 4 H227
Skin Irrit. 2 H315
Skin Sens. 1 H317
Asp. Tox. 1 H304
Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labelling
Hazard pictograms (GHS-US):

[Diagram of hazard pictograms]

Signal word (GHS-US): Danger
Hazard statements (GHS-US): Combustible liquid
May be fatal if swallowed and enters airways
Causes skin irritation
May cause an allergic skin reaction
Precautionary statements (GHS-US):
Keep away from heat, open flames, sparks. - No smoking
Avoid breathing spray, vapours
Wash thoroughly after handling
Contaminated work clothing must not be allowed out of the workplace
Wear eye protection, protective clothing, protective gloves
If swallowed: Immediately call a doctor, a POISON CENTER
If on skin: Wash with plenty of soap and water
Do NOT induce vomiting
If skin irritation or rash occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse
In case of fire: Use carbon dioxide (CO2), dry extinguishing powder, foam to extinguish
Store in a well-ventilated place. Keep cool
Store locked up
Dispose of contents/container to comply with local/regional/national/international regulations.

2.3. Other hazards
No additional information available

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance
Not applicable
Full text of H-phrases: see section 16

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</td>
<td>(CAS No) 64742-47-8</td>
<td>40-70</td>
<td>Flam. Liq. 4, H227 Asp. Tox. 1, H304</td>
</tr>
<tr>
<td>Alkanes, C14-16</td>
<td>(CAS No) 90622-46-1</td>
<td>10-30</td>
<td>Asp. Tox. 1, H304</td>
</tr>
</tbody>
</table>

Date of issue: 7/6/2015  Revision date: 03/10/2015  Version: 1.0
### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general
- **If you feel unwell, seek medical advice (show the label where possible).**
- **If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.**

First-aid measures after skin contact
- **Take off immediately all contaminated clothing and wash it before reuse. Wash skin with plenty of water. Soap may be used. If skin irritation or rash occurs: Get medical advice/attention.**

First-aid measures after eye contact
- **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.**

First-aid measures after ingestion
- **Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.**

#### 4.2. Most important symptoms and effects, both acute and delayed

- **Symptoms/injuries**
  - May cause respiratory irritation. May cause drowsiness or dizziness. Nausea. Headache.
  - Causes skin irritation. May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.
  - May cause skin irritation. May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.
  - Direct contact with the eyes is likely to be irritating.

- **Chronic symptoms**
  - Cracking of the skin. Dry skin.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media: Foam. Carbon dioxide. Dry chemical powder.

#### 5.2. Special hazards arising from the substance or mixture

- **Fire hazard**: Combustible liquid.
- **Reactivity**: Upon combustion: CO and CO2 are formed.

#### 5.3. Advice for firefighters

- **Firefighting instructions**: Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Take account of environmentally hazardous firefighting water.
- **Protection during firefighting**: Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**General measures**: No flames, no sparks. Eliminate all sources of ignition.

- **For non-emergency personnel**
  - **Protective equipment**: Protective goggles. Gloves. Protective clothing.
  - **Emergency procedures**: Evacuate unnecessary personnel. Avoid contact with skin, eyes and clothing. Ventilate spillage area.

- **For emergency responders**
  - **Protective equipment**: Equip cleanup crew with proper protection.
  - **Emergency procedures**: Stop leak if safe to do so. Stop release. Ventilate area.

#### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

#### 6.3. Methods and material for containment and cleaning up

- **For containment**: Contain released substance, pump into suitable containers.
- **Methods for cleaning up**: This material and its container must be disposed of in a safe way, and as per local legislation.

#### 6.4. Reference to other sections

No additional information available
SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling : Comply with the legal requirements. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing.

Hygiene measures : Wash thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures : Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed.
Storage conditions : Keep container tightly closed.
Incompatible products : Oxidizing agent.
Incompatible materials : Sources of ignition.
Storage area : Meet the legal requirements. Store in a cool area. Store in a well-ventilated place.
Special rules on packaging : Keep only in original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
No additional information available

8.2. Exposure controls
Personal protective equipment : Gloves. Safety glasses. Protective clothing. Use appropriate personal protective equipment when risk assessment indicates this is necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Physical state : Liquid
Appearance : Clear, colorless liquid.
Odor : citrus-petroleum distillate odor
Odor threshold : No data available
pH : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : 165 °F Closed Cup
Relative evaporation rate (butylacetate=1) : No data available
Flammability (solid, gas) : No data available
Explosive limits : No data available
Explosive properties : No data available
Oxidising properties : No data available
Vapor pressure : No data available
Relative density : No data available
Relative vapor density at 20 °C : No data available
Density : 0.88 g/ml
Solubility : Insoluble in water.
Log Pow : No data available
Log Kow : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
Viscosity, kinematic : <= 20 cSt
Viscosity, dynamic : No data available
VOC content : < 15 %
SECTION 10: Stability and reactivity

10.1. Reactivity
Upon combustion: CO and CO2 are formed.

10.2. Chemical stability
No additional information available

10.3. Possibility of hazardous reactions
Refer to section 10.1 on Reactivity.

10.4. Conditions to avoid
No additional information available

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Not classified</th>
</tr>
</thead>
</table>

(+)-limonene (5989-27-5)

| LD50 oral rat | 4400 mg/kg bodyweight (Rat; OECD 423: Acute Oral Toxicity – Acute Toxic Class Method; Literature study; > 2000 mg/kg bodyweight; Rat; Read-across) |
| LD50 dermal rabbit | > 5000 mg/kg bodyweight (Rabbit; Weight of evidence; Equivalent or similar to OECD 402) |
| ATE CLP (oral) | 4400.000 mg/kg bodyweight |

hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-47-8)

| LD50 dermal rabbit | > 5000 mg/kg bodyweight (Rabbit; Literature) |

Alkanes, C14-16 (90622-46-1)

| LD50 oral rat | > 2000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |
| LC50 inhalation rat (mg/l) | > 5.8 mg/l/4h |

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/irritation: Not classified

Respiratory or skin sensitisation: May cause an allergic skin reaction.

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

(+)-limonene (5989-27-5)

| IARC group | 3 - Not classifiable |

Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure): Not classified

Specific target organ toxicity (repeated exposure): Not classified

Aspiration hazard: May be fatal if swallowed and enters airways.


Symptoms/injuries after skin contact: Causes skin irritation. May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.

Symptoms/injuries after eye contact: Direct contact with the eyes is likely to be irritating.


Chronic symptoms: Cracking of the skin. Dry skin.

SECTION 12: Ecological information

12.1. Toxicity

(+)-limonene (5989-27-5)

| LC50 fish 1 | 720 g/l (96 h; Pimephales promelas; Lethal) |
| EC50 Daphnia 1 | 0.36 mg/l (48 h; Daphnia magna; GLP) |
(+)-limonene (5989-27-5)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 2</td>
<td>702 g/l (96 h; Pimephales promelas)</td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td>150 mg/l (72 h; Desmodesmus subspicatus; GLP)</td>
</tr>
<tr>
<td>Threshold limit algae 2</td>
<td>2.62 mg/l (72 h; Desmodesmus subspicatus)</td>
</tr>
<tr>
<td>hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics (64742-47-8)</td>
<td></td>
</tr>
<tr>
<td>LC50 fish 1</td>
<td>&gt; 100 mg/l (Pisces)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>&gt; 100 mg/l (Invertebrata)</td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td>&gt; 100 mg/l (Algae)</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

(+)-limonene (5989-27-5)

Persistence and degradability: Readily biodegradable in water. Forming sediments in water. Adsorbs into the soil.

ThOD: 3.29 g O₂/g substance

hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-47-8)

Persistence and degradability: Readily biodegradable in water. Adsorbs into the soil.

12.3. Bioaccumulative potential

(+)-limonene (5989-27-5)

BCF fish 1: 864.8 - 1022 (Pisces; Fresh weight)

Log Pow: 4.38 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 37 °C)

Bioaccumulative potential: Potential for bioaccumulation (4 ≥ Log Kow ≤ 5).

hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-47-8)

Log Pow: 6 - 8.2

Bioaccumulative potential: High potential for bioaccumulation (Log Kow > 5).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT: Not regulated for transport

Additional information

Other information: No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

California Proposition 65 - This product does not contain substances known to the state of California to cause cancer and/or reproductive toxicity

SECTION 16: Other information

Training advice: Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H-phrases:

Asp. Tox. 1 Aspiration hazard, Category 1
### Flam. Liq. 3
Flammable liquids, Category 3

### Flam. Liq. 4
Flammable liquids, Category 4

### Skin Irrit. 2
Skin corrosion/irritation, Category 2

### Skin Sens. 1
Sensitisation — Skin, category 1

### H226
Combustible liquid

### H227
May be fatal if swallowed and enters airways

### H304
Causes skin irritation

### H315
May cause an allergic skin reaction

**NFPA health hazard:** 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

**NFPA fire hazard:** 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.

**NFPA reactivity:** 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

Prepared by: Technical Department

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Our company assumes no responsibility for personal injury or property damage to the vendee, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of this material.