1 Identification

- **Product identifier**
- **Trade name:** Citrus Cleaner J48
- **Article number:** 83-69296
- **Application of the substance / the mixture**
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    Dayton® Superior
    4226 Kansas Avenue
    Kansas City, KS 66106
    Tel.: (866) 329-8724
  - **Emergency Telephone Number:** Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemicals. Within the U.S., Canada, or the U.S. Virgin Islands, call ChemTrec at (800) 424-9300, 24 hours a day. Or, outside these areas, call international number, +1 703 741-5970. Collect calls are accepted.
  - **Information department:** Environmental, Health, and Safety department.

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - Flam. Liq. 4 H227 Combustible liquid.
  - Skin Irrit. 2 H315 Causes skin irritation.
  - Skin Sens. 1 H317 May cause an allergic skin reaction.
  - Aquatic Acute 1 H400 Very toxic to aquatic life.
  - Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.
- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    - GHS07
    - GHS09
- **Signal word** Warning
- **Hazard-determining components of labeling:**
  - (R)-p-mentha-1,8-diene
- **Hazard statements**
  - Combustible liquid.
  - Causes skin irritation.
  - May cause an allergic skin reaction.
  - Very toxic to aquatic life.
  - Toxic to aquatic life with long lasting effects.
- **Precautionary statements**
  - Keep away from flames and hot surfaces. – No smoking.
  - Avoid breathing dust/fume/gas/mist/vapors/spray
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - Wash contaminated clothing before reuse.
  - Store in a well-ventilated place. Keep cool.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)
Trade name: Citrus Cleaner J48

- Classification system:
  - NFPA ratings (scale 0 - 4)
    
    Health = 1  
    Fire = 1  
    Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  
  HEALTH  
  FIRE  
  PHYSICAL HAZARD

  Health = 1  
  Fire = 1  
  Reactivity = 0

- Other hazards
  
  Results of PBT and vPvB assessment
  
  PBT: Not applicable.  
  vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
  
  Description: Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:

  25601-41-6 methyl 9-Decenoate  
  5989-27-5 (R)-p-mentha-1,8-diene  
  9016-45-9 Renex 678

  ≥25-≤70%  
  ≥10-≤20%  
  ≥0.1-<10%

- Additional information: For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- Description of first aid measures
  
  General information:
  Immediately remove any clothing soiled by the product.
  In the event of persistent symptoms receive medical treatment.
  
  After inhalation:
  Supply fresh air and to be sure call for a doctor.
  In case of unconsciousness place patient stably in side position for transportation.
  Immediately move exposed person to fresh air. If breathing difficulty persists or develops get prompt medical attention.
  
  After skin contact:
  Immediately wash with water and soap and rinse thoroughly.
  If skin irritation continues, consult a doctor.
  
  After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

  After swallowing: Seek medical treatment.

  Information for doctor:
  
  Most important symptoms and effects, both acute and delayed No further relevant information available.
  
  Indication of any immediate medical attention and special treatment needed No further relevant information available.
5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- Protective equipment: Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
- Environmental precautions:
  Do not allow product to reach sewage system or any water course.
  Inform respective authorities in case of seepage into water course or sewage system.
- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation.
- Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.
- Protective Action Criteria for Chemicals

| PAC-1: | | | |
|--------|-------------------|-------------------|
| 5989-27-5 (R)-p-mentha-1,8-diene | 15 ppm |
| 9016-45-9 Renex 678 | 43 mg/m³ |
| 25322-68-3 Polyethylene glycol | 30 mg/m³ |

| PAC-2: | | | |
|--------|-------------------|-------------------|
| 5989-27-5 (R)-p-mentha-1,8-diene | 67 ppm |
| 9016-45-9 Renex 678 | 470 mg/m³ |
| 25322-68-3 Polyethylene glycol | 1,300 mg/m³ |

| PAC-3: | | | |
|--------|-------------------|-------------------|
| 5989-27-5 (R)-p-mentha-1,8-diene | 170 ppm |
| 9016-45-9 Renex 678 | 5,400 mg/m³ |
| 25322-68-3 Polyethylene glycol | 7,700 mg/m³ |

7 Handling and storage

- Handling:
- Precautions for safe handling
  Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Do not take internally.
- Information about protection against explosions and fires: No special measures required.
8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures: Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Avoid contact with the skin.
  - Avoid contact with the eyes and skin.
  - Breathing equipment: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- Protection of hands:

  Protective gloves

  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

  Material of gloves
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

  Penetration time of glove material
  The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

  Eye protection: Wear appropriate eye protection to prevent eye contact.

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
  - Appearance:
    - Form: Liquid
    - Color: According to product specification
  - Odor: Characteristic
  - Odor threshold: Not determined.
### 4. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>pH-value</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>Undetermined</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td>176 °C (348.8 °F)</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>71.1 °C (160 °F)</td>
</tr>
<tr>
<td><strong>Flammability (solid, gaseous)</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Ignition temperature</strong></td>
<td>250 °C (482 °F)</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Auto igniting</strong></td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td><strong>Danger of explosion</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Explosion limits</strong></td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>0.7 Vol %</td>
</tr>
<tr>
<td>Upper</td>
<td>6.1 Vol %</td>
</tr>
<tr>
<td><strong>Vapor pressure at 20 °C (68 °F)</strong></td>
<td>2.3 hPa (1.7 mm Hg)</td>
</tr>
<tr>
<td><strong>Density at 20 °C (68 °F)</strong></td>
<td>0.8958 g/cm³ (7.47545 lbs/gal)</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with</strong></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td><strong>Partition coefficient (n-octanol/water)</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not determined</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Solvent content</strong></td>
<td></td>
</tr>
<tr>
<td>Organic solvents</td>
<td>20.0 %</td>
</tr>
<tr>
<td><strong>Solids content</strong></td>
<td>1.0 %</td>
</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td><strong>Volatile Organic Compounds</strong></td>
<td>Not determined</td>
</tr>
</tbody>
</table>

### 10. Stability and reactivity

- **Reactivity**: No decomposition if stored and applied as directed.
- **Chemical stability**: No decomposition if stored and applied as directed.
- **Thermal decomposition / conditions to be avoided**: No decomposition if used according to specifications.
- **Possibility of hazardous reactions**: No dangerous reactions known.
- **Conditions to avoid**: Keep away from heat and sources of ignition.
- **Incompatible materials**: No further relevant information available.
- **Hazardous decomposition products**: No dangerous decomposition products known.
11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
- LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>Substance</th>
<th>LD/LC50 Values (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5989-27-5 (R)-p-mentha-1,8-diene</td>
<td>Oral LD50 4,400 mg/kg (rat)</td>
</tr>
</tbody>
</table>

- Primary irritant effect:
  - on the skin: May cause skin irritation.
  - on the eye: No irritating effect known.
  - Sensitization: Sensitization possible through skin contact.

- Additional toxicological information:
  The product shows the following dangers according to internally approved calculation methods for preparations:
  Irritant

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    | Substance                  | Carcinogenic Category |
    |----------------------------|-----------------------|
    | 5989-27-5 (R)-p-mentha-1,8-diene | 3                     |

  - NTP (National Toxicology Program)
    None of the ingredients is listed.

  - OSHA-Ca (Occupational Safety & Health Administration)
    None of the ingredients is listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behavior in environmental systems:
    - Bioaccumulative potential: No further relevant information available.
    - Mobility in soil: No further relevant information available.

- Ecotoxicological effects:
  - Remark: Very toxic for fish

- Additional ecological information:
  - General notes:
    Water hazard class 1 (Self-assessment): slightly hazardous for water
    Also poisonous for fish and plankton in water bodies.
    Very toxic for aquatic organisms

- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
  - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
- Recommendation:
  Must not be disposed of as normal garbage. Do not allow product to reach sewage system.
  It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous waste. State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state, federal, and provincial environmental regulations.
### 14 Transport Information

- **UN-Number**: Not Regulated
- **DOT**: UN3082
- **ADR, IMDG, IATA**

- **UN proper shipping name**
  - **DOT**: Not Regulated
  - **ADR**: 3082 Environmentally hazardous substances, liquid, n.o.s. (Dipentene, methyl 9-Decenoate)
  - **IMDG**: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIPENTENE, methyl 9-Decenoate), MARINE POLLUTANT
  - **IATA**: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIPENTENE, methyl 9-Decenoate)

- **Transport hazard class(es)**
  - **DOT**: Not Regulated
  - **ADR, IMDG, IATA**

- **Packing group**
  - **DOT**: Not Regulated
  - **ADR, IMDG, IATA**: III

- **Environmental hazards**: Product contains environmentally hazardous substances: methyl 9-Decenoate, (R)-p-mentha-1,8-diene
- **Marine pollutant**: Yes
- **Special marking (ADR)**: Symbol (fish and tree)
- **Special marking (IATA)**: Symbol (fish and tree)
- **Special precautions for user**
- **Danger code (Kemler)**: Warning: Miscellaneous dangerous substances and articles 90
- **EMS Number**: F-A,S-F
- **Stowage Category**: A

- **Environmental hazards**
  - **Marine pollutant**: Yes
  - **Special marking (ADR)**: Symbol (fish and tree)
  - **Special marking (IATA)**: Symbol (fish and tree)

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**: Not applicable.

- **Transport/Additional information**
  - **DOT**: Add "Marine Pollutant" to end of proper shipping name if shipping in a bulk container (>119 gallons).
Trade name: Citrus Cleaner J48

### 15 Regulatory information

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Safety, health and environmental regulations/legislation specific for the substance or mixture</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Sara</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Section 355 (extremely hazardous substances):</strong></td>
<td>None of the ingredient is listed.</td>
</tr>
<tr>
<td><strong>Section 313 (Specific toxic chemical listings):</strong></td>
<td>This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below. None of the ingredients is listed.</td>
</tr>
<tr>
<td><strong>TSCA (Toxic Substances Control Act):</strong></td>
<td>All ingredients are listed.</td>
</tr>
<tr>
<td><strong>Proposition 65</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Chemicals known to the State of California (Prop. 65) to cause cancer:</strong></td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td><strong>Chemicals known to cause reproductive toxicity for females:</strong></td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td><strong>Chemicals known to cause reproductive toxicity for males:</strong></td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td><strong>Chemicals known to cause developmental toxicity:</strong></td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td><strong>Cancerogenity categories</strong></td>
<td></td>
</tr>
<tr>
<td><strong>EPA (Environmental Protection Agency)</strong></td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td><strong>TLV (Threshold Limit Value established by ACGIH)</strong></td>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>
Trade name: Citrus Cleaner J48

- **MAK (German Maximum Workplace Concentration)**
  None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  None of the ingredients is listed.

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**
  - GHS07
  - GHS09

- **Signal word** Warning

- **Hazard-determining components of labeling:**
  - (R)-p-mentha-1,8-diene

- **Hazard statements**
  - Combustible liquid.
  - Causes skin irritation.
  - May cause an allergic skin reaction.
  - Very toxic to aquatic life.
  - Toxic to aquatic life with long lasting effects.

- **Precautionary statements**
  - Keep away from flames and hot surfaces. – No smoking.
  - Avoid breathing dust/fume/gas/mist/vapors/spray
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - Wash contaminated clothing before reuse.
  - Store in a well-ventilated place. Keep cool.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

- **National regulations:**
  - **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
  - **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environmental, Health & Safety Department
- **Contact:** Environmental, Health & Safety Manager
- **Date of preparation / last revision** 08/09/2019 / 161
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent

(Contd. on page 10)
Trade name: Citrus Cleaner J48

PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flam. Liq. 4: Flammable liquids – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2