1 Identification

- **Product identifier:** C101-A
- **Trade name:** CANTESCO® SOLVENT CLEANER – C101 STANDARD
- **Item number(s):** C101-A
- **MSDS Number:** 12
- **UPC bar code(s):** 699913-10385
- **Application of the substance / the mixture:** SOLVENT CLEANER
- **Manufacturer/Supplier:**
  WWW.CANTESCO.COM

USA ADDRESS:
KEMPER SYSTEM AMERICA, INC.
1200 NORTH AMERICA DR,
WEST SENeca, NY 14224
PH (716) 558-2971

CANADIAN ADDRESS:
KEMPER SYSTEM CANADA
6345 NETHERHART ROAD
MISSISSAUGA, ON L5T 1B8
PH (905) 624-5463
FAX (905) 624-2840

- **Information department:**
  Tel: (716) 558-2971 ext. 228
  www.cantesco.com
- **Emergency telephone number:**
  ChemTrec (800) 424-9300
  Canada only: CANUTEC (Call collect) (613) 996-6666

2 Hazard(s) identification

- **Classification of the substance or mixture:**
  - **GHS02 Flame**
    Flammable Aerosols - Category 1 H222 Extremely flammable aerosol.
  - **GHS04 Gas cylinder**
    Gases Under Pressure - Compressed Gas H280 Contains gas under pressure; may explode if heated.
  - **GHS08 Health hazard**
    Aspiration Hazard - Category 1 H304 May be fatal if swallowed and enters airways.
Trade name: CANTESCO® SOLVENT CLEANER – C101 STANDARD

GHS07

Eye Irritation - Category 2A  H319  Causes serious eye irritation.
Specific Target Organ Toxicity - Single Exposure -  Category 3
   · Label elements
      · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
      · Signal word: Danger
   · Hazard-determining components of labeling:
      Distillates (petroleum), hydrotreated light
      propan-2-ol
      acetone
      butanone
   · Hazard statements:
      Extremely flammable aerosol.
      Contains gas under pressure; may explode if heated.
      Causes serious eye irritation.
      May cause drowsiness or dizziness.
      May be fatal if swallowed and enters airways.
   · Precautionary statements:
      Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
      Do not pierce or burn, even after use.
      Do not spray on an open flame or other ignition source.
      Avoid breathing mist/vapours/spray.
      Wear eye protection / face protection.
      Wash thoroughly after handling.
      Use only outdoors or in a well-ventilated area.
      IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
      IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
      Continue rinsing.
      IF INHALED: Call a doctor if you feel unwell.
      IF INHALED: Remove person to fresh air and keep comfortable for breathing.
      If skin irritation occurs: Get medical advice/attention.
      If eye irritation persists: Get medical advice/attention.
      Do NOT induce vomiting.
      IF ON SKIN: Wash with plenty of soap and water.
      Take off contaminated clothing and wash it before reuse.
      Store locked up.
      Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
      Store in a well-ventilated place.
      Dispose of contents/container in accordance with local/regional/national/international regulations.
   · NFPA ratings (scale 0 - 4):
      Health = 2
      Fire = 4
      Reactivity = 0
3 Composition/information on ingredients

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

<table>
<thead>
<tr>
<th>Chemical Characterization</th>
<th>Hazardous Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>64742-47-8</td>
<td>30-60% w/w</td>
</tr>
<tr>
<td>Petroleum gases, liquefied, sweetened</td>
<td>68476-86-8</td>
<td>10-30% w/w</td>
</tr>
<tr>
<td>propan-2-ol</td>
<td>67-63-0</td>
<td>≤10% w/w</td>
</tr>
<tr>
<td>acetone</td>
<td>67-64-1</td>
<td>≤10% w/w</td>
</tr>
<tr>
<td>butanone</td>
<td>78-93-3</td>
<td>3-7% w/w</td>
</tr>
<tr>
<td>2-methoxy-1-methylethyl acetate</td>
<td>108-65-6</td>
<td>1-5% w/w</td>
</tr>
</tbody>
</table>

- **Additional information:** Exact concentrations are being withheld as trade secrets.

4 First-aid measures

- **General information:** Symptoms of poisoning may even occur after several hours.
- **After inhalation:**
  - Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
  - In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
  - Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
- **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.
- **After swallowing:**
  - If swallowed, do not induce vomiting. Get medical attention right away.

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

- **Suitable extinguishing agents:** CO2, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Protective equipment:** Mouth respiratory protective device.

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.
  - Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:**
  - Dispose contaminated material as waste according to item T3.
  - Ensure adequate ventilation.
  - Do not flush with water or aqueous cleansing agents

(Contd. on page 4)
7 Handling and storage

· Handling
  · Precautions for safe handling:
    Ensure good ventilation/exhaustion at the workplace.
    Open and handle receptacle with care.
  · Information about protection against explosions and fires:
    Do not spray on a naked flame or any incandescent material.
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.
    Keep respiratory protective device available.
    Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
· Storage
  · Requirements to be met by storerooms and receptacles:
    Store in a cool location.
    Observe official regulations on storing packagings with pressurized containers.
  · Information about storage in one common storage facility: Not required.
· Further information about storage conditions:
  Keep receptacle tightly sealed.
  Do not gas tight seal receptacle.
  Store in cool, dry conditions in well sealed receptacles.
  Protect from heat and direct sunlight.
· Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

<table>
<thead>
<tr>
<th>Components with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>64742-47-8 Distillates (petroleum), hydrotreated light</strong></td>
</tr>
<tr>
<td>EL (Canada)</td>
</tr>
<tr>
<td>Skin</td>
</tr>
<tr>
<td><strong>67-63-0 propan-2-ol</strong></td>
</tr>
<tr>
<td>EL (Canada)</td>
</tr>
<tr>
<td>Long-term value: 200 ppm</td>
</tr>
<tr>
<td>EV (Canada)</td>
</tr>
<tr>
<td>Long-term value: 200 ppm</td>
</tr>
<tr>
<td>PEL (USA)</td>
</tr>
<tr>
<td>REL (USA)</td>
</tr>
<tr>
<td>Long-term value: 980 mg/m³, 400 ppm</td>
</tr>
<tr>
<td>TLV (USA)</td>
</tr>
<tr>
<td>Long-term value: 492 mg/m³, 200 ppm</td>
</tr>
<tr>
<td>BEI</td>
</tr>
</tbody>
</table>
### Safety Data Sheet

acc. to OSHA HCS & WHMIS

Printing date 11/23/2016
Reviewed on 11/22/2016

**Trade name: CANTESCO® SOLVENT CLEANER – C101 STANDARD**

<table>
<thead>
<tr>
<th><strong>67-64-1 acetone</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EL (Canada)</td>
<td>Short-term value: 500 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 250 ppm</td>
</tr>
<tr>
<td>EV (Canada)</td>
<td>Short-term value: 750 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 500 ppm</td>
</tr>
<tr>
<td>PEL (USA)</td>
<td>Long-term value: 2400 mg/m^3, 1000 ppm</td>
</tr>
<tr>
<td>REL (USA)</td>
<td>Long-term value: 590 mg/m^3, 250 ppm</td>
</tr>
<tr>
<td>TLV (USA)</td>
<td>Short-term value: 1187 mg/m^3, 500 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 594 mg/m^3, 250 ppm</td>
</tr>
<tr>
<td></td>
<td><strong>BEI</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>78-93-3 butanone</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EL (Canada)</td>
<td>Short-term value: 100 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 50 ppm</td>
</tr>
<tr>
<td>EV (Canada)</td>
<td>Short-term value: 885 mg/m^3, 300 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 590 mg/m^3, 200 ppm</td>
</tr>
<tr>
<td>PEL (USA)</td>
<td>Long-term value: 590 mg/m^3, 200 ppm</td>
</tr>
<tr>
<td>REL (USA)</td>
<td>Short-term value: 885 mg/m^3, 300 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 590 mg/m^3, 200 ppm</td>
</tr>
<tr>
<td>TLV (USA)</td>
<td>Short-term value: 885 mg/m^3, 300 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 590 mg/m^3, 200 ppm</td>
</tr>
<tr>
<td></td>
<td><strong>BEI</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>108-65-6 2-methoxy-1-methylethyl acetate</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EL (Canada)</td>
<td>Short-term value: 75 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 50 ppm</td>
</tr>
<tr>
<td>EV (Canada)</td>
<td>Long-term value: 270 mg/m^3, 50 ppm</td>
</tr>
<tr>
<td>WEEL (USA)</td>
<td>Long-term value: 50 ppm</td>
</tr>
</tbody>
</table>

**Ingredients with biological limit values:**

<table>
<thead>
<tr>
<th><strong>67-63-0 propan-2-ol</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BEI (USA)</td>
<td>40 mg/L</td>
</tr>
<tr>
<td></td>
<td>Medium: urine</td>
</tr>
<tr>
<td></td>
<td>Time: end of shift at end of workweek</td>
</tr>
<tr>
<td></td>
<td>Parameter: Acetone (background, nonspecific)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>67-64-1 acetone</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BEI (USA)</td>
<td>50 mg/L</td>
</tr>
<tr>
<td></td>
<td>Medium: urine</td>
</tr>
<tr>
<td></td>
<td>Time: end of shift</td>
</tr>
<tr>
<td></td>
<td>Parameter: Acetone (nonspecific)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>78-93-3 butanone</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BEI (USA)</td>
<td>2 mg/L</td>
</tr>
<tr>
<td></td>
<td>Medium: urine</td>
</tr>
<tr>
<td></td>
<td>Time: end of shift</td>
</tr>
<tr>
<td></td>
<td>Parameter: MEK</td>
</tr>
</tbody>
</table>

**Additional information:** The lists that were valid during the creation were used as basis.

**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.
Store protective clothing separately. 
Avoid contact with the eyes and skin.

- **Breathing equipment:** Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**
  - **Protective gloves**
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - **Material of gloves:**
    - Butyl rubber, BR
    - Nitrile rubber, NBR
- **Eye protection:**
  - **Tightly sealed goggles**

### 9 Physical and chemical properties

- **Form:** Liquid Under Pressure
- **Color:** Colorless
- **Odor:** Solvent-like
- **Odor threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
  - **Melting point/Melting range:** -95.3 °C
  - **Boiling point/Boiling range:** >56 °C
- **Flash point:** -104 °C (Prop. (-17 °C liq.))
- **Flammability (solid, gaseous):** Extremely flammable liquefied gas.
- **Ignition temperature:** 210 °C
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits**
  - **Lower:** 0.5 Vol %
  - **Upper:** 13.0 Vol %
- **Vapor pressure at 20 °C:** 233 hPa
- **Density at 20 °C:** 0.8 g/cm³
- **Relative density:** Not determined.
- **Vapour density at 20 °C:** 4.6 (AIR=1)
- **Evaporation rate:** Not applicable.
Trade name: CANTESCO® SOLVENT CLEANER – C101 STANDARD

- Solubility in / Miscibility with Water: Not miscible or difficult to mix.
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- Solvent content:
  - Organic solvents: 33.3 %
- Other information
  - VOC Content: 693.090 g/l
  - VOC %: >99 %
  - HAP Content: 154.020 g/l
  - MIR Value: 2.472 g O₃/g

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects:
  - Acute toxicity
  - Specific symptoms in biological assay: No further relevant information available.
  - Primary irritant effect
  - on the skin: No irritant effect.
  - on the eye: Irritating effect.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
  The product shows the following dangers according to internally approved calculation methods for preparations:
  - Harmful
  - Irritant
- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    - 67-63-0 propan-2-ol
  - NTP (National Toxicology Program)
    - None of the ingredients is listed.

12 Ecological information

- 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.
Trade name: CANTESCO® SOLVENT CLEANER – C101 STANDARD

- Mobility in soil: No further relevant information available.
- Additional ecological information
- General notes:
  Water hazard class 3 (Self-assessment): extremely hazardous for water
  Do not allow product to reach ground water, water course or sewage system, even in small quantities.
  Danger to drinking water if even extremely small quantities leak into the ground.
- Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings
  - Recommendation:
    Place in a sealed container and label as waste. Place in a safe area, and comply with all federal, state, provincial and local regulations for disposal.

14 Transport information

- UN-Number
  - DOT, TDG, IMDG, IATA
    UN1950

- UN proper shipping name
  - DOT
  - TDG
  - IMDG
  - IATA
    Aerosols, flammable
    1950 Aerosols
    AEROSOLS
    AEROSOLS, flammable

- Transport hazard class(es)
  - DOT
    2.1
  - TDG (Transport dangerous goods):
    2.1 5F Gases
    2.1
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Trade name: CANTESCO® SOLVENT CLEANER – C101 STANDARD

(Contd. of page 8)

<table>
<thead>
<tr>
<th>IMDG, IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Class</td>
</tr>
<tr>
<td>· Label</td>
</tr>
<tr>
<td>· Packing group</td>
</tr>
<tr>
<td>· DOT, TDG, IMDG, IATA</td>
</tr>
<tr>
<td>· Environmental hazards:</td>
</tr>
<tr>
<td>· Marine pollutant:</td>
</tr>
<tr>
<td>· Special precautions for user:</td>
</tr>
<tr>
<td>· Danger code (Kemler):</td>
</tr>
<tr>
<td>· EMS Number:</td>
</tr>
<tr>
<td>· Stowage Code</td>
</tr>
<tr>
<td>· SW1 Protected from sources of heat.</td>
</tr>
<tr>
<td>· SW22 For AEROSOLS with a maximum capacity of 1 litre:</td>
</tr>
<tr>
<td>· Category A. For AEROSOLS with a capacity above 1 litre:</td>
</tr>
<tr>
<td>· Category B. For WASTE AEROSOLS: Category C, Clear of</td>
</tr>
<tr>
<td>· living quarters.</td>
</tr>
<tr>
<td>· Segregation Code</td>
</tr>
<tr>
<td>· SG69 For AEROSOLS with a maximum capacity of 1 litre:</td>
</tr>
<tr>
<td>· Segregation as for class 9. Stow &quot;separated from&quot; class 1 except</td>
</tr>
<tr>
<td>· for division 1.4. For AEROSOLS with a capacity above 1 litre:</td>
</tr>
<tr>
<td>· Segregation as for the appropriate subdivision of class 2. For</td>
</tr>
<tr>
<td>· WASTE AEROSOLS: Segregation as for the appropriate</td>
</tr>
<tr>
<td>· subdivision of class 2.</td>
</tr>
<tr>
<td>· Transport in bulk according to Annex II of</td>
</tr>
<tr>
<td>· MARPOL73/78 and the IBC Code:</td>
</tr>
<tr>
<td>· Transport/Additional information:</td>
</tr>
<tr>
<td>· DOT</td>
</tr>
<tr>
<td>· Quantity limitations</td>
</tr>
<tr>
<td>· On passenger aircraft/rail: 75 kg</td>
</tr>
<tr>
<td>· On cargo aircraft only: 150 kg</td>
</tr>
<tr>
<td>· Remarks:</td>
</tr>
<tr>
<td>· This product may be shipped according to the Limited Quantity</td>
</tr>
<tr>
<td>· Exceptions provided that all Limited Quantity shipping</td>
</tr>
<tr>
<td>· requirements are met.</td>
</tr>
<tr>
<td>· TDG</td>
</tr>
<tr>
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<tr>
<td>· Exceptions provided that all Limited Quantity shipping</td>
</tr>
<tr>
<td>· requirements are met.</td>
</tr>
<tr>
<td>· Excepted quantities (EQ)</td>
</tr>
<tr>
<td>· Code: E0</td>
</tr>
<tr>
<td>· Not permitted as Excepted Quantity</td>
</tr>
<tr>
<td>· IMDG</td>
</tr>
<tr>
<td>· Limited quantities (LQ)</td>
</tr>
<tr>
<td>· Excepted quantities (EQ)</td>
</tr>
<tr>
<td>· Code: E0</td>
</tr>
<tr>
<td>· Not permitted as Excepted Quantity</td>
</tr>
<tr>
<td>· Remarks:</td>
</tr>
<tr>
<td>· This product may be shipped according to the Limited Quantity</td>
</tr>
<tr>
<td>· Exceptions provided that all Limited Quantity shipping</td>
</tr>
<tr>
<td>· requirements are met.</td>
</tr>
</tbody>
</table>

(Contd. on page 10)
Safety Data Sheet
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Trade name: CANTESCO® SOLVENT CLEANER – C101 STANDARD

- **IATA**
- **Remarks:** This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.
- **UN "Model Regulation":** UN 1950 AEROSOLS, 2.1

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
  - **Section 355 (extremely hazardous substances):** None of the ingredients is listed.
  - **Section 313 (Specific toxic chemical listings):**
    - 67-63-0 propan-2-ol
    - 78-93-3 butanone
  - **TSCA (Toxic Substances Control Act):** All ingredients are listed or exempted
  - **Proposition 65**
    - **Chemicals known to cause cancer:** None of the ingredients is listed.
    - **Chemicals known to cause reproductive toxicity for females:** None of the ingredients is listed.
    - **Chemicals known to cause reproductive toxicity for males:** None of the ingredients is listed.
    - **Chemicals known to cause developmental toxicity:** None of the ingredients is listed.
  - **Canadian substance listings**
    - **Canadian Domestic Substances List (DSL/NDSL):** All ingredients are listed.
    - **Canadian Ingredient Disclosure list (limit 0.1%):** None of the ingredients is listed.
    - **Canadian Ingredient Disclosure list (limit 1%):**
      - 67-63-0 propan-2-ol
      - 67-64-1 acetone
      - 78-93-3 butanone
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    - GHS02
    - GHS04
    - GHS07
    - GHS08
  - **Signal word** Danger

(Contd. on page 11)
Trade name: CANTESCO® SOLVENT CLEANER – C101 STANDARD

- Hazard-determining components of labeling:
  Distillates (petroleum), hydrotreated light propan-2-ol acetone butanone

- Hazard statements
  Extremely flammable aerosol.
  Contains gas under pressure; may explode if heated.
  Causes serious eye irritation.
  May cause drowsiness or dizziness.
  May be fatal if swallowed and enters airways.

- Precautionary statements
  Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  Do not pierce or burn, even after use.
  Do not spray on an open flame or other ignition source.
  Avoid breathing mist/vapours/spray.
  Wear eye protection / face protection.
  Wash thoroughly after handling.
  Use only outdoors or in a well-ventilated area.
  IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  IF INHALED: Call a doctor if you feel unwell.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  If skin irritation occurs: Get medical advice/attention.
  If eye irritation persists: Get medical advice/attention.
  Do NOT induce vomiting.
  IF ON SKIN: Wash with plenty of soap and water.
  Take off contaminated clothing and wash it before reuse.
  Store locked up.
  Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
  Store in a well-ventilated place.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

- National regulations:

- Information about limitation of use:
  Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
  Exceptions can be made by the authorities in certain cases.

16 Other information

This MSDS format meets ANSI Z400.1-1998, OSHA 1910.1200 and WHMIS requirements. Kemper System America, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Product use and conditions of use are beyond the control of Kemper System America, Inc. Warranty of materials is limited to test results of product performance as detailed in certificates of compliance. Interpretation of test results is the responsibility of end-user. No other warranties, expressed or implied, are made. Kemper System America, Inc is an ISO 9001:2008 and ISO 14001:2004 registered company.

- Department issuing SDS: Product safety department
- Contact: Stephen Nowicki
- Date of preparation / last revision 11/23/2016 / 2
Abbreviations and acronyms:
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- 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)
- VOC: Volatile Organic Compounds (USA, EU)
1 Identification

· **Product identifier:** D101-A
· **Trade name:** CANTESCO® DEVELOPER D101 - NONAQUEOUS WET
· **Item number(s):** D101-A
· **MSDS Number:** 13
· **UPC bar code(s):** 699913-10370
· **Application of the substance / the mixture** DEVELOPER
· **Manufacturer/Supplier:**
  WWW.CANTESCO.COM

USA ADDRESS:
KEMPER SYSTEM AMERICA, INC.
1200 NORTH AMERICA DR,
WEST SENECA, NY 14224
PH (716) 558-2971

CANADIAN ADDRESS:
KEMPER SYSTEM CANADA
6345 NETHERHART ROAD
MISSISSAUGA, ON L5T 1B8
PH (905) 624-5463
FAX (905) 624-2840

· **Information department:**
  Tel: (716) 558-2971 ext. 228
  www.cantesco.com
· **Emergency telephone number:**
  ChemTrec (800) 424-9300
  Canada only: CANUTEC (Call collect) (613) 996-6666

2 Hazard(s) identification

· **Classification of the substance or mixture:**
  
  ![GHS02 Flame]
  Flammable Aerosols - Category 1
  H222 Extremely flammable aerosol.
  
  ![GHS04 Gas cylinder]
  Gases Under Pressure - Compressed Gas
  H280 Contains gas under pressure; may explode if heated.
  
  ![GHS07]

(Contd. on page 2)
Eye Irritation - Category 2A  H319  Causes serious eye irritation.
Specific Target Organ Toxicity - Single Exposure - Category 3

· Label elements
  · GHS label elements  The product is classified and labeled according to the Globally Harmonized System (GHS).
  · Signal word: Danger

· Hazard-determining components of labeling:
  acetone

· Hazard statements:
  Extremely flammable aerosol.
  Contains gas under pressure; may explode if heated.
  Causes serious eye irritation.
  May cause drowsiness or dizziness.

· Precautionary statements:
  Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  Do not pierce or burn, even after use.
  Do not spray on an open flame or other ignition source.
  Avoid breathing dust/fume/gas/mist/vapours/spray.
  Wear protective gloves/protective clothing/eye protection/face protection.
  Wash thoroughly after handling.
  Use only outdoors or in a well-ventilated area.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  Call a POISON CENTER/doctor if you feel unwell.
  If eye irritation persists: Get medical advice/attention.
  Store locked up.
  Protect from sunlight. Store in a well-ventilated place.
  Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
  Store in a well-ventilated place. Keep container tightly closed.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

· NFPA ratings (scale 0 - 4):
  Health = 2
  Fire = 4
  Reactivity = 0

3 Composition/information on ingredients

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

· Dangerous components:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Substance Description</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1</td>
<td>acetone</td>
<td>30-60% w/w</td>
</tr>
<tr>
<td>68476-86-8</td>
<td>Petroleum gases, liquefied, sweetened</td>
<td>15-40% w/w</td>
</tr>
<tr>
<td>14808-60-7</td>
<td>Quartz (SiO2)</td>
<td>0,1-%1% w/w</td>
</tr>
</tbody>
</table>

· Additional information: Exact concentrations are being withheld as trade secrets.
4 First-aid measures

· **After inhalation:**
  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.

· **After skin contact:**
  Immediately rinse with water.

· **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.

· **After swallowing:**
  If symptoms persist consult 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

· **Suitable extinguishing agents:**
  CO2, sand, extinguishing powder. Do not use water.

· **For safety reasons unsuitable extinguishing agents:**
  Water with full jet

· **Special hazards arising from the substance or mixture:**
  No further relevant information available.

· **Protective equipment:**
  No special measures required.

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.
  Do not allow to enter sewers/surface or ground water.

· **Methods and material for containment and cleaning up:**
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
  Do not flush with water or aqueous cleansing agents

· **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.

7 Handling and storage

· **Handling**

  · **Precautions for safe handling:**
    Ensure good ventilation/exhaustion at the workplace.
    Open and handle receptacle with care.

  · **Information about protection against explosions and fires:**
    Do not spray on a naked flame or any incandescent material.
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.
    Keep respiratory protective device available.
    Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
Safety Data Sheet
acc. to OSHA HCS & WHMIS

Printing date 11/23/2016
Reviewed on 11/23/2016

Trade name: CANTESCO® DEVELOPER D101 - NONAQUEOUS WET

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

· Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Component</th>
<th>EL (Canada)</th>
<th>EV (Canada)</th>
<th>PEL (USA)</th>
<th>REL (USA)</th>
<th>TLV (USA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1 acetone</td>
<td>Short-term value: 500 ppm</td>
<td>Short-term value: 750 ppm</td>
<td>Long-term value: 2400 mg/m³, 1000 ppm</td>
<td>Long-term value: 590 mg/m³, 250 ppm</td>
<td>Short-term value: 1187 mg/m³, 500 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 250 ppm</td>
<td>Long-term value: 500 ppm</td>
<td>Long-term value: 2400 mg/m³, 1000 ppm</td>
<td>Long-term value: 2400 mg/m³, 1000 ppm</td>
<td>Long-term value: 594 mg/m³, 250 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BEI</td>
</tr>
<tr>
<td>14808-60-7 Quartz (SiO2)</td>
<td>Long-term value: 0,025 mg/m³</td>
<td>Long-term value: 0,10* mg/m³</td>
<td>see Quartz listing</td>
<td>see Quartz listing</td>
<td>Long-term value: 0,025* mg/m³</td>
</tr>
<tr>
<td></td>
<td>ACGIH A2; IARC 1</td>
<td>*respirable fraction</td>
<td>*respirable dust; See Pocket Guide App. A</td>
<td>*respirable dust; See Pocket Guide App. A</td>
<td>*as respirable fraction</td>
</tr>
</tbody>
</table>

· Ingredients with biological limit values:

<table>
<thead>
<tr>
<th>Component</th>
<th>BEI (USA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1 acetone</td>
<td>50 mg/L</td>
</tr>
<tr>
<td></td>
<td>Medium: urine</td>
</tr>
<tr>
<td></td>
<td>Time: end of shift</td>
</tr>
<tr>
<td></td>
<td>Parameter: Acetone (nonspecific)</td>
</tr>
</tbody>
</table>

· Additional information: The lists that were valid during the creation were used as basis.

· 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.
Store protective clothing separately.
9 Physical and chemical properties

- Form: Liquid Under Pressure
- Color: Cloudy
- Odor: Mild
- Odor threshold: Not determined.

- pH-value: Not determined.

- Change in condition
  - Melting point/Melting range: -95,3 °C
  - Boiling point/Boiling range: >56 °C

- Flash point: -104 °C (Prop. (-17 °C Liq.))

- Flammability (solid, gaseous): Extremely flammable liquefied gas.

- Ignition temperature: 465 °C

- Decomposition temperature: Not determined.

- Auto igniting: Product is not selfigniting.

- Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- Explosion limits
  - Lower: 2,6 Vol %
  - Upper: 13,0 Vol %

- Vapor pressure at 20 °C: 233 hPa

- Density at 20 °C: 0,715 g/cm³
- Relative density: Not determined.
- Vapour density at 20 °C: 2,0 (AIR=1)
- Evaporation rate at 20 °C: >5,7 (BA=1)
### Trade name: CANTESCO® DEVELOPER D101 - NONAQUEOUS WET

#### Solubility in / Miscibility with
- **Water:** Emulsifiable.

#### Partition coefficient (n-octanol/water)
- Not determined.

#### Viscosity
- **Dynamic:** Not determined.
- **Kinematic:** Not determined.

#### Solvent content
- **Organic solvents:** 54.5 %
- **Solids content:** 9.1 %

#### Other information
- **VOC Content:** 259,994 g/l
- **VOC %:** 37%
- **HAP Content:** None
- **MIR Value:** 0.588 g O₃/g
- **Heat of Combustion:** 31.592 MJ/kg

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **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**
    - **67-64-1 acetone**
      - **Oral LD50:** 5800 mg/kg (rat)
      - **Dermal LD50:** 20000 mg/kg (rabbit)
  - **Primary irritant effect**
    - **on the skin:** No irritant effect.
    - **on the eye:** Irritating effect.
  - **Sensitization:** No sensitizing effects known.
  - **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)**
    - 7631-86-9 silicon dioxide, chemically prepared 3
    - 14808-60-7 Quartz (SiO2) 1
    - 71-43-2 benzene 1
  - **NTP (National Toxicology Program)**
    - 14808-60-7 Quartz (SiO2) K
12 Ecological information

- **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.
- **Additional ecological information**
  - **General notes:**
    - Water hazard class 3 (Self-assessment): extremely hazardous for water
    - Do not allow product to reach ground water, water course or sewage system, even in small quantities.
    - Danger to drinking water if even extremely small quantities leak into the ground.
- **Other adverse effects:** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation:**
    - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings**
  - **Recommendation:**
    - Place in a sealed container and label as waste. Place in a safe area, and comply with all federal, state, provincial and local regulations for disposal.

14 Transport information

- **UN-Number**
  - DOT, TDG, IMDG, IATA: UN1950
- **UN proper shipping name**
  - DOT: Aerosols, flammable
  - TDG: 1950 Aerosols
  - IMDG: AEROSOLS
  - IATA: AEROSOLS, flammable
- **Transport hazard class(es)**
  - **DOT**
    - Class: 2.1
    - Label: 2.1
### TDG (Transport dangerous goods):

<table>
<thead>
<tr>
<th>Class</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>5F</td>
</tr>
</tbody>
</table>

**IMDG, IATA**

<table>
<thead>
<tr>
<th>Class</th>
<th>2.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>2.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Packing group</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT, TDG, IMDG, IATA</td>
<td>Not regulated</td>
</tr>
</tbody>
</table>

### Environmental hazards:

- **Marine pollutant:** No
- **Special precautions for user:** Warning: Gases
- **EMS Number:** F-D,S-U
- **Stowage Code**
  - SW1 Protected from sources of heat.
  - SW2 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.

**Segregation Code**

- SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable.

### Transport/Additional information:

- **DOT**
  - **Quantity limitations**
    - On passenger aircraft/rail: 75 kg
    - On cargo aircraft only: 150 kg
  - **Remarks:** This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.

- **TDG**
  - This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.

- **Excepted quantities (EQ)**
  - Code: E0
  - Not permitted as Excepted Quantity
Trade name: CANTESCO® DEVELOPER D101 - NONAQUEOUS WET

- IMDG
  - Limited quantities (LQ) 1L
  - Excepted quantities (EQ) Code: E0
    Not permitted as Excepted Quantity
  - Remarks: This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.

- IATA
  - Remarks: This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.
  - UN "Model Regulation": UN 1950 AEROSOLS, 2.1

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
  - Section 355 (extremely hazardous substances):
    None of the ingredients is listed.

- Section 313 (Specific toxic chemical listings):
  71-43-2 benzene

- TSCA (Toxic Substances Control Act):
  All ingredients are listed or exempted

- Proposition 65
  - Chemicals known to cause cancer:
    14808-60-7 Quartz (SiO2)
    71-43-2 benzene

- Chemicals known to cause reproductive toxicity for females:
  None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for males:
  71-43-2 benzene

- Chemicals known to cause developmental toxicity:
  71-43-2 benzene

- Canadian substance listings
  - Canadian Domestic Substances List (DSL/NDSL):
    All ingredients are listed.

- Canadian Ingredient Disclosure list (limit 0.1%):
  None of the ingredients is listed.

- Canadian Ingredient Disclosure list (limit 1%):
  67-64-1 acetone
  7631-86-9 silicon dioxide, chemically prepared

- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
Trade name: CANTESCO® DEVELOPER D101 - NONAQUEOUS WET

- **Hazard pictograms**
  - GHS02
  - GHS04
  - GHS07

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  acetone

- **Hazard statements**
  Extremely flammable aerosol.
  Contains gas under pressure; may explode if heated.
  Causes serious eye irritation.
  May cause drowsiness or dizziness.

- **Precautionary statements**
  Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  Do not pierce or burn, even after use.
  Do not spray on an open flame or other ignition source.
  Avoid breathing dust/fume/gas/mist/vapours/spray.
  Wear protective gloves/protective clothing/eye protection/face protection.
  Wash thoroughly after handling.
  Avoid contact with skin and eyes.

- **National regulations:**
  Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

---

**16 Other information**

This MSDS format meets ANSI Z400.1-1998, OSHA 1910.1200 and WHMIS requirements. Kemper System America, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Product use and conditions of use are beyond the control of Kemper System America, Inc. Warranty of materials is limited to test results of product performance as detailed in certificates of compliance. Interpretation of test results is the responsibility of end-user. No other warranties, expressed or implied, are made. Kemper System America, Inc is an ISO 9001:2008 and ISO 14001:2004 registered company.

- **Department issuing SDS:** Product safety department
- **Contact:** Stephen Nowicki
- **Date of preparation / last revision** 11/23/2016 / 2
Abbreviations and acronyms:
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
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)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
1 Identification

- **Product identifier:** P301W-A
- **Trade name:** CANTESCO® VISIBLE DYE PENETRANT P301W – WATER WASHABLE
- **Item number(s):** P301W-A
- **MSDS Number:** 37
- **UPC bar code(s):** 699913-10025
- **Application of the substance / the mixture:** DYE PENETRANT
- **Manufacturer/Supplier:** WWW.CANTESCO.COM

**USA ADDRESS:**
KEMPER SYSTEM AMERICA, INC.
1200 NORTH AMERICA DR,
WEST SENECIA, NY 14224
PH (716) 558-2971

**CANADIAN ADDRESS:**
KEMPER SYSTEM CANADA
6345 NETHERHART ROAD
MISSISSAUGA, ON L5T 1B8
PH (905) 624-5463
FAX (905) 624-2840

- **Information department:**
  Tel: (716) 558-2971 ext. 228
  www.cantesco.com
- **Emergency telephone number:**
  ChemTrec (800) 424-9300 / 1-(703)-741-5970
  Canada only: CANUTEC (Call collect) (613) 996-6666

2 Hazard(s) identification

- **Classification of the substance or mixture:**
  - GHS02 Flame
    Flammable Aerosols - Category 1 \( \text{H}222\) Extremely flammable aerosol.
  - GHS04 Gas cylinder
    Gases Under Pressure - Compressed Gas \( \text{H}280\) Contains gas under pressure; may explode if heated.
  - GHS08 Health hazard
    Carcinogenicity – Category 2 \( \text{H}351\) Suspected of causing cancer.

(Contd. on page 2)
Aspiration Hazard - Category 1  H304  May be fatal if swallowed and enters airways.

· **Label elements**

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

· **Signal word:** Danger

· **Hazard-determining components of labeling:**

  Solvent naphtha (petroleum), heavy arom.
  ethylbenzene

· **Hazard statements:**

  Extremely flammable aerosol.
  Contains gas under pressure; may explode if heated.
  Suspected of causing cancer.
  May be fatal if swallowed and enters airways.

· **Precautionary statements:**

  Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  Do not pierce or burn, even after use.
  Do not spray on an open flame or other ignition source.
  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.
  IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
  IF exposed or concerned: Get medical advice/attention.
  Do NOT induce vomiting.
  Store locked up.
  Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
  Store in a well-ventilated place.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

· **NFPA ratings (scale 0 - 4):**

  ![NFPA ratings](image)

  Health = 2  
  Fire = 4  
  Reactivity = 0

### 3 Composition/information on ingredients

· **Chemical characterization:** Mixtures

· **Description:** Mixture of the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>Chemical characterization</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous components:</td>
<td></td>
</tr>
<tr>
<td>64742-94-5</td>
<td>Solvent naphtha (petroleum), heavy arom.</td>
</tr>
<tr>
<td>74-98-6</td>
<td>propane</td>
</tr>
<tr>
<td>106-97-8</td>
<td>butane</td>
</tr>
<tr>
<td>75-28-5</td>
<td>isobutane</td>
</tr>
<tr>
<td>68412-54-4</td>
<td>Polyoxyethylene (9) nonylphenylether, branched</td>
</tr>
<tr>
<td>100-41-4</td>
<td>ethylbenzene</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>40-70% w/w</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10-30% w/w</td>
</tr>
<tr>
<td></td>
<td>≤10% w/w</td>
</tr>
<tr>
<td></td>
<td>≤10% w/w</td>
</tr>
<tr>
<td></td>
<td>1-5% w/w</td>
</tr>
<tr>
<td></td>
<td>0.1-≤1% w/w</td>
</tr>
</tbody>
</table>

· **Additional information:** Exact concentrations and/or compositions are being withheld as trade secrets.
4 First-aid measures

- **After inhalation:**
  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.

- **After skin contact:**
  Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

- **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.

- **After swallowing:**
  Do not induce vomiting. Immediately call a poison center/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

- **Suitable extinguishing agents:** CO2, sand, extinguishing powder. Do not use water.

- **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **Special hazards arising from the substance or mixture:** No further relevant information available.

- **Protective equipment:** No special measures required.

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.
  Do not allow to enter sewers/surface or ground water.

- **Methods and material for containment and cleaning up:**
  Ensure adequate ventilation.
  Do not flush with water or aqueous cleansing agents

- **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.

7 Handling and storage

- **Handling**

- **Precautions for safe handling:**
  Ensure good ventilation/exhaustion at the workplace.
  Open and handle receptacle with care.

- **Information about protection against explosions and fires:**
  Do not spray on a naked flame or any incandescent material.
  Keep ignition sources away - Do not smoke.
  Protect against electrostatic charges.
  Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.

- Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Substance</th>
<th>EL (Canada)</th>
<th>EV (Canada)</th>
<th>PEL (USA)</th>
<th>REL (USA)</th>
<th>TLV (USA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>74-98-6 propane</td>
<td>Long-term value: 1000 ppm</td>
<td>Long-term value: 1.000 ppm</td>
<td>Long-term value: 1800 mg/m³, 1000 ppm</td>
<td>Long-term value: 1800 mg/m³, 1000 ppm</td>
<td>refer to Appendix F in TLVs &amp; BEIs book; NIC-EX</td>
</tr>
<tr>
<td>106-97-8 butane</td>
<td>Short-term value: 750 ppm</td>
<td>Long-term value: 800 ppm</td>
<td>Long-term value: 1900 mg/m³, 800 ppm</td>
<td>Short-term value: (2370) mg/m³, (1000) ppm</td>
<td>NIC-EX</td>
</tr>
<tr>
<td>75-28-5 isobutane</td>
<td>Long-term value: 800 ppm</td>
<td>Short-term value: (2370) mg/m³, (1000) ppm</td>
<td></td>
<td>NIC-EX</td>
<td></td>
</tr>
<tr>
<td>100-41-4 ethylbenzene</td>
<td>Long-term value: 20 ppm</td>
<td>Short-term value: 540 mg/m³, 125 ppm</td>
<td>Long-term value: 435 mg/m³, 100 ppm</td>
<td>Short-term value: 545 mg/m³, 125 ppm</td>
<td>Long-term value: 87 mg/m³, 20 ppm</td>
</tr>
</tbody>
</table>
Ingredients with biological limit values:

<table>
<thead>
<tr>
<th>Component</th>
<th>BEI (USA)</th>
<th>Medium</th>
<th>Time</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-41-4 ethylbenzene</td>
<td>0.7 g/g creatinine</td>
<td>urine</td>
<td>end of shift at end of workweek</td>
<td>Sum of mandelic acid and phenylglyoxylic acid (nonspecific, semi-quantitative)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Medium: end-exhaled air&lt;br&gt;Time: not critical&lt;br&gt;Parameter: Ethyl benzene (semi-quantitative)</td>
</tr>
</tbody>
</table>

Additional information: The lists that were valid during the creation were used as basis.

Personal protective equipment

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work.

Breathing equipment: Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material of gloves:
Butyl rubber, BR
Nitrile rubber, NBR

Eye protection:
Tightly sealed goggles

Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Liquid Under Pressure</td>
</tr>
<tr>
<td>Color</td>
<td>Dark red</td>
</tr>
<tr>
<td>Odor</td>
<td>Aromatic</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH-value</td>
<td>Not determined</td>
</tr>
<tr>
<td>Change in condition</td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>Undetermined</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td>132 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>&lt;-18 °C</td>
</tr>
<tr>
<td>Flammability (solid, gaseous)</td>
<td>Extremely flammable liquefied gas.</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>365 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto igniting</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>Danger of explosion</td>
<td>Product is not explosive. However, formation of explosive air/vapor mixtures are possible.</td>
</tr>
</tbody>
</table>
Safety Data Sheet
acc. to OSHA HCS & WHMIS

Printing date 01/22/2018
Reviewed on 09/29/2017

Trade name: CANTESCO® VISIBLE DYE PENETRANT P301W – WATER WASHABLE

- Explosion limits
  - Lower: 1.5 Vol %
  - Upper: 10.9 Vol %

- Vapor pressure at 20 °C: 8300 hPa

- Density at 20 °C: 0.777 g/cm³
  - Relative density: Not determined.

- Vapor density at 20 °C: >1 (AIR=1)

- Evaporation rate: Not applicable.

- Solubility in / Miscibility with
  - Water: Not miscible or difficult to mix.

- Partition coefficient (n-octanol/water): Not determined.

- Viscosity:
  - Dynamic: Not determined.
  - Kinematic: Not determined.

- Solvent content:
  - Organic solvents: 41.0 %
  - VOC content: 51.0 %

- Other information
  - % Volatile by volume: 93.0%

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

- Possibility of hazardous reactions: No dangerous reactions known.

- Conditions to avoid: No further relevant information available.

- Incompatible materials: No further relevant information available.

- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects:

  - Acute toxicity
  - Primary irritant effect
    - on the skin: No irritant effect.
    - on the eye: No irritating effect.

  - Sensitization: No sensitizing effects known.

- Additional toxicological information:

- Carcinogenic categories

  - IARC (International Agency for Research on Cancer)
    - 100-41-4 ethylbenzene 2B

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

· 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.
· Additional ecological information
  · General notes:
    Water hazard class 2 (Self-assessment): hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.
· Other adverse effects: No further relevant information available.

13 Disposal considerations

· Waste treatment methods
  · Recommendation:
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
· Uncleaned packagings
  · Recommendation:
    Place in a sealed container and label as waste. Place in a safe area, and comply with all federal, state, provincial and local regulations for disposal.

14 Transport information

· UN-Number
  · DOT, TDG, IMDG, IATA UN1950
· UN proper shipping name
  · DOT Aerosols, flammable
  · TDG 1950 Aerosols
  · IMDG AEROSOLS
  · IATA AEROSOLS, flammable
· Transport hazard class(es)
  · DOT
    · Class 2.1
    · Label 2.1
  · TDG (Transport dangerous goods):
    · Class 2 5F Gases
Trade name: CANTESCO® VISIBLE DYE PENETRANT P301W – WATER WASHABLE

<table>
<thead>
<tr>
<th>· Label</th>
<th>2.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>· IMDG, IATA</td>
<td></td>
</tr>
<tr>
<td>· Class</td>
<td>2.1</td>
</tr>
<tr>
<td>· Label</td>
<td>2.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Packing group</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>· DOT, TDG, IMDG, IATA</td>
<td></td>
</tr>
<tr>
<td>· Environmental hazards:</td>
<td>No</td>
</tr>
<tr>
<td>· Marine pollutant:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Special precautions for user:</th>
<th>Warning: Gases</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Danger code (Kemler):</td>
<td>-</td>
</tr>
<tr>
<td>· EMS Number:</td>
<td>F-D,S-U</td>
</tr>
<tr>
<td>· Stowage Code</td>
<td>SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.</td>
</tr>
</tbody>
</table>

| · Segregation Code | SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2. |

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

<table>
<thead>
<tr>
<th>· Transport/Additional information:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>· DOT</td>
<td></td>
</tr>
<tr>
<td>· Quantity limitations</td>
<td>On passenger aircraft/rail: 75 kg On cargo aircraft only: 150 kg</td>
</tr>
<tr>
<td>· Remarks:</td>
<td>This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· TDG</th>
<th>This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Excepted quantities (EQ)</td>
<td>Code: E0 Not permitted as Excepted Quantity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· IMDG</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>· Limited quantities (LQ)</td>
<td>1L</td>
</tr>
<tr>
<td>· Excepted quantities (EQ)</td>
<td>Code: E0 Not permitted as Excepted Quantity</td>
</tr>
<tr>
<td>· Remarks:</td>
<td>This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.</td>
</tr>
</tbody>
</table>

### Notes:
- DOT: Quantity limitations and Remarks
- TDG: Excepted quantities (EQ) and Remarks
- IMDG: Limited quantities (LQ), Excepted quantities (EQ), and Remarks

(Contd. on page 9)
Trade name: CANTESCO® VISIBLE DYE PENETRANT P301W – WATER WASHABLE

- **Remarks:** This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.

- **UN "Model Regulation":** UN 1950 AEROSOLS, 2.1

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - **Section 355 (extremely hazardous substances):** None of the ingredients is listed.
    - **Section 313 (Specific toxic chemical listings):**
      - 100-41-4 ethylbenzene
    - **TSCA (Toxic Substances Control Act):** All ingredients are listed or exempted
  - **Proposition 65**
    - **Chemicals known to cause cancer:**
      - 100-41-4 ethylbenzene
    - **Chemicals known to cause reproductive toxicity for females:** None of the ingredients is listed.
    - **Chemicals known to cause reproductive toxicity for males:** None of the ingredients is listed.
    - **Chemicals known to cause developmental toxicity:** None of the ingredients is listed.
  - **Canadian substance listings**
    - **Canadian Domestic Substances List (DSL/NDSL):** All ingredients are listed.
    - **Canadian Ingredient Disclosure list (limit 0.1%):**
      - 100-41-4 ethylbenzene
    - **Canadian Ingredient Disclosure list (limit 1%):**
      - 106-97-8 butane
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    - GHS02, GHS04, GHS08
  - **Signal word** Danger
  - **Hazard-determining components of labeling:**
    - Solvent naphtha (petroleum), heavy arom.
    - ethylbenzene

(Contd. of page 8)
Trade name: CANTESCO® VISIBLE DYE PENETRANT P301W – WATER WASHABLE

- **Hazard statements**
  - Extremely flammable aerosol.
  - Contains gas under pressure; may explode if heated.
  - Suspected of causing cancer.
  - May be fatal if swallowed and enters airways.

- **Precautionary statements**
  - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  - Do not pierce or burn, even after use.
  - Do not spray on an open flame or other ignition source.
  - 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.
  - IF SWALLOWED: Immediately call a POISON CENTER/doctor.
  - IF exposed or concerned: Get medical advice/attention.
  - Do NOT induce vomiting.
  - Store locked up.
  - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
  - Store in a well-ventilated place.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

- **16 Other information**
  - This SDS format meets ANSI Z400.1-2010, OSHA 1910.1200 and WHMIS requirements. Kemper System America, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Product use and conditions of use are beyond the control of Kemper System America, Inc. Warranty of materials is limited to test results of product performance as detailed in certificates of compliance. Interpretation of test results is the responsibility of end-user. No other warranties, expressed or implied, are made. Kemper System America, Inc is an ISO 9001:2015 and ISO 14001:2015 registered company.

  - **Department issuing SDS:** Product safety department
  - **Contact:** Stephen Nowicki
  - **Date of preparation / last revision** 01/22/2018 / -
  - **Abbreviations and acronyms:**
    - IMDG: International Maritime Code for Dangerous Goods
    - DOT: US Department of Transportation
    - IATA: International Air Transport Association
    - 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)
    - VOC: Volatile Organic Compounds (USA, EU)