1 Identification of substance:

- **Product details:**
  - **Trade name:** Lacol
  - **Application of the substance / the preparation:** Drycleaning / Laundry

- **Manufacturer/Supplier:**
  SEITZ GmbH
  Gutenbergstrasse 3
  65830 Kriftel/ Germany
  seitz@seitz24.com
  www.seitz24.com

- **Information department:**
  CHEM-TEL Inc.
  1305 North Florida Ave
  Tampa Florida 33602

- **Emergency information:** 1-800-255-3924

2 Hazards identification

- **Hazard description:**
  - Flammable liquid
  - Irritant liquid
  - Irritant

- **WHMIS classification**
  - B2 - Flammable liquid
  - D2B - Toxic material causing other toxic effects

- **Information pertaining to particular dangers for man and environment**
  - Has a narcotizing effect.
  - R 10 Flammable.
  - R 41 Risk of serious damage to eyes.
  - R 67 Vapours may cause drowsiness and dizziness

- **Classification system**
  - The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **NFPA ratings (scale 0-4)**
  - Health = 2
  - Fire = 3
  - Reactivity = 0

- **HMIS ratings (scale 0-4)**
  - Health = 2
  - Fire = 3
  - Reactivity = 0

3 Composition/Data on components:

- **Chemical characterization**
  - **Description:** Mixture of the substances listed below with non-hazardous ingredients.

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Components</th>
<th>20 - 50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>123-86-4</td>
<td>acetic acid n-butyl ester</td>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 2)
Trade name: Lacol

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>34590-94-8</td>
<td>dipropylene glycol monomethyl ether</td>
<td>&lt; 20%</td>
</tr>
<tr>
<td>68411-30-3</td>
<td>alkyl benzenesulfonic acid sodium salts</td>
<td>&lt; 20%</td>
</tr>
<tr>
<td>108-10-1</td>
<td>4-methyl-2-pentanone</td>
<td>&lt; 10%</td>
</tr>
<tr>
<td>68551-17-7</td>
<td>isoalkanes</td>
<td>&lt; 5%</td>
</tr>
</tbody>
</table>

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

### 4 First aid measures

- **General information**
  - Remove casualties from exposure.
  - Keep unprotected persons away.
  - Immediately remove any clothing soiled by the product.

- **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**
  - Immediately rinse with water.
  - 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**
  - Rinse out mouth and then drink plenty of water.
  - Do not induce vomiting; immediately call for medical help.

- **Information for doctor**
  - The following symptoms may occur:
    - Headache
    - Dizziness
    - Nausea
    - Unconsciousness

### 5 Fire fighting measures

- **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 with full jet.

- **Special hazards caused by the material, its products of combustion or resulting gases**
  - In case of fire, the following can be released:
    - Carbon monoxide and carbon dioxide (CO, CO2)
    - Sulphur oxides (SOX)
  - In certain fire conditions, traces of other toxic gases cannot be excluded.

- **Protective equipment**
  - Do not inhale explosion gases or combustion gases.
  - Wear self-contained respiratory protective device.

- **Additional information**
  - Cool endangered receptacles with water spray.
  - Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6 Accidental release measures

- **Person-related safety precautions**
  - Wear protective equipment. Keep unprotected persons away.
Trade name: Lacol

Avoid contact with eyes and skin.
Keep away from ignition sources
Ensure adequate ventilation
Do not breathe gases / vapors.

**Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.

**Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the collected material according to regulations.

7 Handling and storage

- **Handling**
  - **Information for safe handling:**
    Keep away from heat and direct sunlight.
    Avoid contact with eyes and skin.
    Ensure good ventilation/exhaustion at the workplace.
    Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
    Prevent formation of aerosols.

- **Information about protection against explosions and fires:**
  Keep ignition sources away - Do not smoke.
  Formation of explosive vapor-/ air mixture possible.
  Protect against electrostatic charges.
  Flammable gas-air mixtures may be formed in empty receptacles.

- **Storage**
  - **Requirements to be met by storerooms and receptacles:**
    Store only in the original receptacle.
    Prevent any seepage into the ground.
  - **Information about storage in one common storage facility:**
    Store away from foodstuffs.
    Store away from oxidizing agents.
    Do not store together with acids.
    Do not store together with alcalis (caustic solutions).
  - **Further information about storage conditions:**
    Store in cool, dry conditions in well sealed receptacles.
    Store receptacle in a well ventilated area.
    Protect from frost.
    Time of storage: max. 12 month

*  

8 Exposure controls and 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>PEL (USA)</th>
<th>REL (USA)</th>
<th>TLV (USA)</th>
<th>EL (Canada)</th>
<th>EV (Canada)</th>
</tr>
</thead>
<tbody>
<tr>
<td>123-86-4 acetic acid n-butyl ester</td>
<td>710 mg/m³, 150 ppm</td>
<td>Short-term value: 950 mg/m³, 200 ppm</td>
<td>Long-term value: 710 mg/m³, 150 ppm</td>
<td>Short-term value: 950 mg/m³, 200 ppm</td>
<td>Long-term value: 710 mg/m³, 150 ppm</td>
</tr>
</tbody>
</table>

(Contd. on page 4)
34590-94-8 dipropylene glycol monomethyl ether  
PEL (USA)  600 mg/m³, 100 ppm  
REL (USA)  Short-term value: 900 mg/m³, 150 ppm  
Long-term value: 600 mg/m³, 100 ppm  
Skin  
TLV (USA)  Short-term value: 909 mg/m³, 150 ppm  
Long-term value: 606 mg/m³, 100 ppm  
Skin  
EL (Canada)  Short-term value: 150 ppm  
Long-term value: 100 ppm  
Skin  
EV (Canada)  Short-term value: 910 mg/m³, 150 ppm  
Long-term value: 605 mg/m³, 100 ppm  

108-10-1 4-methyl-2-pentanone  
PEL (USA)  410 mg/m³, 100 ppm  
REL (USA)  Short-term value: 300 mg/m³, 75 ppm  
Long-term value: 205 mg/m³, 50 ppm  
TLV (USA)  Short-term value: 307 mg/m³, 75 ppm  
Long-term value: (205) NIC-123 mg/m³, (50) NIC-30 ppm  
BEI;NIC-A3  
EL (Canada)  Short-term value: 75 ppm  
Long-term value: 50 ppm  
EV (Canada)  Short-term value: 75 ppm  
Long-term value: 205 mg/m³, 50 ppm  

- Additional information: The lists that were valid during the creation were used as basis.
- Personal protective equipment
- General protective and hygienic measures
  The usual precautionary measures for handling chemicals should be followed.  
  Keep away from foodstuffs, beverages and feed.  
  Immediately remove all soiled and contaminated clothing  
  Do not eat, drink, smoke or snuff while working.  
  Wash hands before breaks and at the end of work.  
  Avoid contact with the eyes and skin.  
  Do not inhale gases / vapors / aerosols.  
- Breathing equipment:
  Not necessary if room is well-ventilated.  
  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:  
  Solvent resistant gloves  
  The glove material has to be impermeable and resistant to the product/ the substance/ the  
  preparation.  
- Material of gloves  
  Butyl rubber, BR  
  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 can not 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: Tightly sealed goggles.
Trade name: Lacol

**9 Physical and chemical properties:**

<table>
<thead>
<tr>
<th>· Body protection: Solvent resistant protective clothing</th>
</tr>
</thead>
</table>

**9 Physical and chemical properties:**

<table>
<thead>
<tr>
<th>· General information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form: Fluid</td>
</tr>
<tr>
<td>Color: Yellow</td>
</tr>
<tr>
<td>Odor: Solvent-like</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Change in condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Melting range: undetermined</td>
</tr>
<tr>
<td>Boiling point/Boiling range: undetermined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Flash point:</th>
</tr>
</thead>
<tbody>
<tr>
<td>32°C (90°F) (ASTM D 93 c.c.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Auto igniting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product is not selfigniting.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Danger of explosion:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product is not explosive. However, formation of explosive air/vapor mixtures are possible.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Density at 20°C (68°F):</th>
</tr>
</thead>
<tbody>
<tr>
<td>~ 0.95 g/cm³ (ISO 2810)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Solubility in / Miscibility with Water:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not miscible or difficult to mix</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· pH-value (100 g/l) at 20°C (68°F):</th>
</tr>
</thead>
<tbody>
<tr>
<td>~ 7.0</td>
</tr>
</tbody>
</table>

**10 Stability and reactivity**

<table>
<thead>
<tr>
<th>· Thermal decomposition / conditions to be avoided:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No decomposition if used according to specifications. To avoid thermal decomposition do not overheat.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Dangerous reactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reacts with acids, alkalis and oxidizing agents Forms flammable gases / vapors.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Dangerous products of decomposition:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None if used as directed.</td>
</tr>
</tbody>
</table>

**11 Toxicological information**

<table>
<thead>
<tr>
<th>· Acute toxicity:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>· LD/LC50 values that are relevant for classification:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>123-86-4 acetic acid n-butyl ester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50 13100 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal LD50 14100 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Inhalative LC50/4 h &gt;21.0 mg/l (rat)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>34590-94-8 dipropylene glycol monomethyl ether</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50 5130 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal LD50 &gt; 19000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>68411-30-3 alkyl benzenesulfonic acid sodium salts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50 2550 mg/kg (rat)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>108-10-1 4-methyl-2-pentanone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50 &gt; 2000 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal LD50 &gt; 2000 mg/kg (rab)</td>
</tr>
</tbody>
</table>

(Contd. on page 6)

USA
Trade name: Lacol

**Inhalative**
- LC50/4 h: 8.3-16.6 mg/l (rat)

**68551-17-7 isoalkanes**
- Oral LD50: 34600 mg/kg (rat)
- Dermal LD50: 15400 mg/kg (rabbit)

**Primary irritant effect:**
- on the skin: Irritating effects possible
- on the eye: Strong irritant with the danger of severe eye injury.

**Sensitization:**
No sensitizing effects known.

**Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
- Irritant
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**12 Ecological information:**
- General notes:
Do not allow product to reach ground water, water course or sewage system.
Our products are ultimately biodegradable according to criteria as laid down in Regulation (EC) No. 648/2004 on detergents. The test methods of ultimate biodegradability (mineralisation) are:
Norm EN ISO 14593, OECD 301 B, OECD 301 C, OECD D and OECD 301 F

**13 Waste Disposal Method**
- Product and uncleaned packagings:
- Recommendation:
Contaminated adsorbent, soil, water must be disposed of in a permitted hazardous waste management facility. Recovered products may be reused, reprocessed or incinerated or must be treated in a permitted hazardous waste management facility. It is your duty to dispose of the chemical materials and/or their containers in accordance with the Clean Air Act, The Clean Water Act, RCRA, as well as applicable Federal, State, and local Regulations regarding disposal.

**14 Transport information**
- DOT regulations:
  - Hazard class: 3
  - Identification number: UN1993
  - Packing group: III
  - Proper shipping name (technical name): FLAMMABLE LIQUID, N.O.S. (BUTYL ACETATES, METHYL ISOBUTYL KETONE)
  - Label 3
**Trade name:** Lacol

### Land transport ADR/RID (cross-border)

- **ADR/RID class:** 3 (F1) Flammable liquids
- **Danger code (Kemler):** 30
- **UN-Number:** 1993
- **Packaging group:** III
- **Description of goods:** 1993 FLAMMABLE LIQUID, N.O.S. (BUTYL ACETATES, METHYL ISOBUTYL KETONE)

### Maritime transport IMDG:

- **IMDG Class:** 3
- **UN Number:** 1993
- **Label:** 3
- **Packaging group:** III
- **EMS Number:** F-E,S-E
- **Marine pollutant:** No
- **Proper shipping name:** FLAMMABLE LIQUID, N.O.S. (BUTYL ACETATES, METHYL ISOBUTYL KETONE)

### Air transport ICAO-TI and IATA-DGR:

- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1993
- **Label:** 3
- **Packaging group:** III
- **Proper shipping name:** FLAMMABLE LIQUID, N.O.S. (BUTYL ACETATES, METHYL ISOBUTYL KETONE)

### 15 Regulatory information (Not meant to be all-inclusive/selected regulations represented)

- **Product related hazard informations:**
The product has been marked in accordance with national laws. Observe the general safety regulations when handling chemicals

- **Hazard symbols:**
  - Irritant

- **Risk phrases:**
  - 10 Flammable.
  - 41 Risk of serious damage to eyes.
  - 67 Vapours may cause drowsiness and dizziness

- **Safety phrases:**
  - 2 Keep out of the reach of children.
Trade name: Lacol

20 When using do not eat or drink.
23 Do not breathe vapor.
24/25 Avoid contact with skin and eyes.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.
37/39 Wear suitable gloves and eyewear protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
46 If swallowed, seek medical advice immediately and show this container or label.

- National regulations
- Other regulations, limitations and prohibitive regulations
  The product has been designed for professional use only.
- Please note:
  The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure that their activities comply with Federal, State or provincial and local laws. The following specific information is made for the purpose of complying with numerous laws and regulations.
- U.S. Regulations

- EPA (Environmental Protection Agency)
  108-10-1 4-methyl-2-pentanone

- IARC (International Agency for Research on Cancer)
  None of the ingredients is listed.

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

- TLV (Threshold Limit Value established by ACGIH)
  None of the ingredients is listed.

- 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.

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

- SARA Section 355 (extremely hazardous substances)
  None of the ingredients is listed.

- SARA Section 313 (specific toxic chemical listings)
  108-10-1 4-methyl-2-pentanone

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

- California proposition 65:
  - Prop 65 - Chemicals known to cause cancer
    None of the ingredients is listed.
  - Prop 65 - Chemicals known to cause developmental toxicity
    None of the ingredients is listed.
  - Prop 65 - Chemicals known to cause reproductive toxicity for females
    None of the ingredients is listed.
  - Prop 65 - Chemicals known to cause reproductive toxicity for males
    None of the ingredients is listed.
Trade name: Lacol

- Canadian regulations
- WHMIS information:
  The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is:
  B2 - Flammable liquid
  D2B - Toxic material causing other toxic effects
- CPR statement:
  This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.
- Canadian Ingredient Disclosure List
  - Limit 0,1%
    None of the ingredients is listed.
  - Limit 1%
    | Limit 1% |
    |----------|
    | 123-86-4 acetic acid n-butyl ester |
    | 34590-94-8 dipropylene glycol monomethyl ether |
    | 108-10-1 4-methyl-2-pentanone |
    | 68411-30-3 alkyl benzenesulfonic acid sodium salts |
- Canadian Domestic Substances List (DSL)
  All ingredients are listed.

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.
- Contact: Dr. Ralf Döring
- * Data compared to the previous version altered.