1 Identification

- **Product identifier**
- **Trade name:** Lacol
- **Application of the substance / the mixture**
  Dry-cleaning
  Spotting agent, stain remover
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    SEITZ GmbH
    Gutenbergstrasse 3
    65830 Kriftel / Germany
    Tel. + 49(0) 6192-9948-0
    Fax + 49(0) 6192-9948-99
    msds@seitz24.com
    www.seitz24.com
  - **Information department:**
    CHEM-TEL Inc.
    1305 North Florida Ave
    Tampa Florida 33602
  - **Emergency telephone number:** 1-800-255-3924

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - GHS02 Flame
    Flam. Liq. 3 H226 Flammable liquid and vapor.
  - GHS05 Corrosion
    Eye Dam. 1 H318 Causes serious eye damage.
  - GHS07
    Skin Irrit. 2 H315 Causes skin irritation.
    STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**
  - **GHS label elements**
    The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    - GHS02
    - GHS05
    - GHS07

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  - cyclohexanone
  - acetic acid n-butylester
  - benzenesulfonic acid, C10-13-alkyl derivs., sodium salts

(Contd. on page 2)
Hazard statements
H226 Flammable liquid and vapor.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.

Precautionary statements
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280 Wear protective gloves / eye protection.
P261 Avoid breathing mist/vapours/spray.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a poison center/doctor.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Hazard description:

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

Classification system

NFPA ratings (scale 0-4)

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HMIS-ratings (scale 0-4)

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FIRE</th>
<th>REACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Components</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>123-86-4</td>
<td>acetic acid n-butylester</td>
<td>&lt; 25%</td>
</tr>
<tr>
<td>34590-94-8</td>
<td>dipropylene glycol monomethylether</td>
<td>&lt; 25%</td>
</tr>
<tr>
<td>108-94-1</td>
<td>cyclohexanone</td>
<td>&lt; 15%</td>
</tr>
<tr>
<td>68411-30-3</td>
<td>benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</td>
<td>&lt; 15%</td>
</tr>
<tr>
<td>108-65-6</td>
<td>2-methoxy-1-methylethyl acetate</td>
<td>&lt; 10%</td>
</tr>
</tbody>
</table>

Additional information For the wording of the listed risk phrases refer to section 16.
4 First-aid measures

- **Description of 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**
  - Most important symptoms and effects, both acute and delayed
    Headache
    Dizziness
    Nausea
    Unconsciousness
  - **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 with full jet.
  - **Special hazards arising from the substance or mixture**
    Formation of toxic gases is possible during heating or in case of fire.
  - **Advice for firefighters**
  - **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

- **Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.
  - Avoid contact with eyes and skin.
  - Keep away from ignition sources
  - Ensure adequate ventilation
  - Do not breathe gases/ vapours.
- **Environmental precautions:**
  - Do not allow to enter sewers/ surface or ground water.
Trade name: Lacol

Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the collected material according to regulations.

Reference to other sections
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

Handling

Precautions 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 vapour- / air mixture possible.
Protect against electrostatic charges.
Flammable gas-air mixtures may be formed in receptacles.

Conditions for safe storage, including any incompatibilities

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 alkalis (caustic solutions).

Further information about storage conditions:
Protect from heat and direct sunlight.
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

Specific end use(s) Dry-cleaning

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:

<table>
<thead>
<tr>
<th>Component</th>
<th>Long-term value</th>
<th>Short-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>123-86-4 acetic acid n-butylester</td>
<td>710 mg/m³, 150 ppm</td>
<td>950 mg/m³, 200 ppm</td>
</tr>
<tr>
<td>PEL (USA)</td>
<td>710 mg/m³, 150 ppm</td>
<td></td>
</tr>
<tr>
<td>REL (USA)</td>
<td>950 mg/m³, 200 ppm</td>
<td></td>
</tr>
<tr>
<td>TLV (USA)</td>
<td>710 mg/m³, 150 ppm</td>
<td></td>
</tr>
<tr>
<td>EL (Canada)</td>
<td>20 ppm</td>
<td></td>
</tr>
<tr>
<td>EV (Canada)</td>
<td>950 mg/m³, 200 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>710 mg/m³, 150 ppm</td>
<td></td>
</tr>
</tbody>
</table>
### 34590-94-8 dipropylene glycol monomethylether

<table>
<thead>
<tr>
<th></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></td>
<td>Long-term value: 600 mg/m³, 100 ppm</td>
<td>Short-term value: 900 mg/m³, 150 ppm</td>
<td>Short-term value: 909 mg/m³, 150 ppm</td>
<td>Short-term value: 150 ppm</td>
<td>Short-term value: 910 mg/m³, 150 ppm</td>
</tr>
<tr>
<td>Skin</td>
<td></td>
<td>Skin</td>
<td>Skin</td>
<td>Skin</td>
<td>Skin</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 600 mg/m³, 100 ppm</td>
<td>Long-term value: 909 mg/m³, 150 ppm</td>
<td>Long-term value: 606 mg/m³, 100 ppm</td>
<td>Long-term value: 100 ppm</td>
<td>Long-term value: 605 mg/m³, 100 ppm</td>
</tr>
</tbody>
</table>

### 108-94-1 cyclohexanone

<table>
<thead>
<tr>
<th></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></td>
<td>Long-term value: 200 mg/m³, 50 ppm</td>
<td>Long-term value: 100 mg/m³, 25 ppm</td>
<td>Long-term value: 50 mg/m³, 20 ppm</td>
<td>Short-term value: 50 ppm</td>
<td>Short-term value: 50 ppm</td>
</tr>
<tr>
<td>Skin</td>
<td></td>
<td>Skin</td>
<td>Skin</td>
<td>Skin</td>
<td>Skin</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 200 mg/m³, 50 ppm</td>
<td>Long-term value: 100 mg/m³, 25 ppm</td>
<td>Long-term value: 50 mg/m³, 20 ppm</td>
<td>Long-term value: 20 ppm</td>
<td>Long-term value: 20 ppm</td>
</tr>
</tbody>
</table>

### 108-65-6 2-methoxy-1-methylethyl acetate

<table>
<thead>
<tr>
<th></th>
<th>WEEL (USA)</th>
<th>EL (Canada)</th>
<th>EV (Canada)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Long-term value: 50 ppm</td>
<td>Short-term value: 75 ppm</td>
<td>Long-term value: 270 mg/m³, 50 ppm</td>
</tr>
</tbody>
</table>

#### Ingredients with biological limit values:

<table>
<thead>
<tr>
<th></th>
<th>BEI (USA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>80 mg/L</td>
</tr>
</tbody>
</table>

- Medium: urine
- Time: end of shift at end of workweek
- Parameter: 1.2-Cyclohexanediol with hydrolysis (nonspecific, semi-quantitative)
- 8 mg/L
- Medium: urine
- Time: end of shift
- Parameter: Cyclohexanol with hydrolysis (nonspecific, semi-quantitative)

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

- Exposure controls
- 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 sniff while working.
  - Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes and skin.

(Contd. on page 6)
### 1. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Fluid</td>
</tr>
<tr>
<td>Form</td>
<td>Fluid</td>
</tr>
<tr>
<td>Color</td>
<td>Yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Solvent-like</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td><strong>pH-value (100 g/l) at 20 °C (68 °F)</strong></td>
<td>~ 7.0</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>36 °C (97 °F) (ASTM D93 c.c.)</td>
</tr>
<tr>
<td><strong>Flammability (solid, gaseous)</strong></td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td><strong>Ignition temperature</strong></td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>No further relevant information available.</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>Product is not explosive.</td>
</tr>
<tr>
<td><strong>Explosion limits</strong></td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td><strong>Lower</strong></td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td><strong>Upper</strong></td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td><strong>Oxidizing properties</strong></td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td><strong>Density at 20 °C (68 °F)</strong></td>
<td>~ 0.97 g/cm3 (ISO 2811)</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>
Trade name: Lacol

10 Stability and reactivity

- Reactivity No further relevant information available.
- Chemical stability
  Stable under normal ambient conditions.
  No decomposition if used and stored according to specifications.
- Possibility of hazardous reactions Forms flammable gases / fumes
- Conditions to avoid
  Protect from heat and direct sunlight.
  Keep away from ignition sources
- Incompatible materials: Strong oxidizing agents
- Hazardous decomposition products: None if used as directed.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - LD/LC50 values that are relevant for classification:
    123-86-4 acetic acid n-butylester
    Oral LD50 10760 mg/kg (rat) (OECD 423)
    Dermal LD50 > 14112 mg/kg (rabbit) (OECD 402)
    Inhalative LC50 (4h) 23.4 mg/l (rat) (OECD 403)
    34590-94-8 dipropylene glycol monomethylether
    Oral LD50 > 5000 mg/kg (rat)
    Dermal LD50 9500 mg/kg (rabbit)
    Inhalative LC50 (7h) 3.35 mg/l (rat)
    108-94-1 cyclohexanone
    Oral LD50 1530 mg/kg (rat)
    Dermal LD50 948 mg/kg (rabbit)
    Inhalative LC50 (4h) 10.7 mg/l (rat)
    68411-30-3 benzenesulfonic acid, C10-13-alkyl derivs., sodium salts
    Oral LD50 2000 mg/kg (rat)
    Dermal LD50 > 2000 mg/kg (rat)
    108-65-6 2-methoxy-1-methylethyl acetate
    Oral LD50 > 5000 mg/kg (rat)
    Dermal LD50 > 2000 mg/kg (rat)
    Inhalative LC50 (4h) > 5 mg/l (rat)

- on the skin: Causes skin irritation.
- on the eye: Causes serious eye damage.
Trade name: Lacol

- Sensitization: No sensitizing effects known.
- Additional toxicological information:
  Inhalation of concentrated vapors as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.
- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    108-94-1 cyclohexanone 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.
- Additional ecological information:
- General notes:
  Do not allow product to reach ground water, water course or sewage system, even in small quantities.
  The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
- 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:
  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

- UN-Number
- DOT, ADR, IMDG, IATA: UN1993
- UN proper shipping name
- DOT: Flammable liquids, n.o.s. (Butyl acetates, Cyclohexanone)
Trade name: Lacol

### Transport hazard class(es)

#### DOT

- **Class**: 3 Flammable liquids
- **Label**: 3

#### ADR

- **Class**: 3 (F1) Flammable liquids
- **Label**: 3

#### IMDG, IATA

- **Class**: 3 Flammable liquids
- **Label**: 3

#### Packing group

- **DOT, ADR, IMDG, IATA**: III

#### Environmental hazards:

- Not applicable.

#### Special precautions for user

- **Warning**: Flammable liquids
- **Danger code (Kemler)**: 30
- **EMS Number**: F-E,S-E

#### 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: 60 L
    - On cargo aircraft only: 220 L

- **ADR**
  - **Excepted quantities (EQ)**: Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml

- **IMDG**
  - **Limited quantities (LQ)**: 5L
  - **Excepted quantities (EQ)**: Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml
### 15 Regulatory information

- **Canadian substance lists**
  - **Canadian domestic substance list (DSL):**
    - All ingredients are listed.
  - **Canadian ingredient disclosure list (limit 0.1%):**
    - 108-94-1 cyclohexanone
  - **Canadian ingredient disclosure list (limit 1%):**
    - 123-86-4 acetic acid n-butylester
    - 34590-94-8 dipropylene glycol monomethylether
    - 68411-30-3 benzenesulfonic acid, C10-13-alkyl derivs., sodium salts

- **Sara**
  - **Section 355 (extremely hazardous substances):**
    - None of the ingredients is listed.
  - **Section 313 (specific toxic chemical listings):**
    - None of the ingredients is listed.
  - **TSCA (Toxic Substances Control Act):**
    - All ingredients are listed.

- **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.

- **Cancerogenity categories**
  - **EPA (Environmental Protection Agency)**
    - None of the ingredients is listed.
  - **TLV (Threshold Limit Value established by ACGIH)**
    - 108-94-1 cyclohexanone
      - **A3**
  - **MAK (German Maximum Workplace Concentration)**
    - 108-94-1 cyclohexanone
      - **3B**
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    - None of the ingredients is listed.

- **National regulations**
  - **Other regulations, limitations and prohibitive regulations**
  - **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 buyers responsibility to ensure that its activities comply with Federal, State or provincial, and local laws. The following

(Contd. on page 11)
specific information is made for the purpose of complying with numerous laws and regulations.

Other information: The product has been designed for professional use only.

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.

Date of preparation / last revision 10/15/2015 / 2

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)
WHMIS: Workplace Hazardous Materials Information System (Canada)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

* Data compared to the previous version altered.