1 Identification of the substance/mixture and of the company/undertaking

- Product identifier

- Trade name: Novaclin Super PI

- Relevant identified uses of the substance or mixture and uses advised against

- Application of the substance / the preparation Drycleaning

- Details of the supplier of the safety data sheet

- 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 telephone number: 1-800-255-3924

2 Hazards identification

- Classification of the substance or mixture

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC
  Irritant liquid
  
  \[ \text{Xi; Irritant} \]
  
  \[ \text{R41: Risk of serious damage to eyes.} \]

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

- Label elements

- Labelling according to EU guidelines:
  The product has been marked in accordance with national laws.
  Observe the general safety regulations when handling chemicals

- Code letter and hazard designation of product:
  Irritant

- Risk phrases:
  41 Risk of serious damage to eyes.

- Safety phrases:
  2 Keep out of the reach of children.
  20 When using do not eat or drink.
  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 eye/face 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.

- Special labelling of certain preparations:
  Contains (R)-p-mentha-1,8-diene. May produce an allergic reaction.

- Hazard description:

- WHMIS classification
  B3 - Combustible liquid
Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 03/09/2011
Reviewed on 03/09/2011

Trade name: Novaclin Super PI

D2B - Toxic material causing other toxic effects

- Classification system
- NFPA ratings (scale 0-4)
  - Health = 2
  - Fire = 2
  - Reactivity = 0

- HMIS ratings (scale 0-4)

3 Composition/information on ingredients

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

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Components</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>69011-36-5</td>
<td>isostridecanol, oxethylated</td>
<td>50 - 75%</td>
</tr>
<tr>
<td></td>
<td>trade secret: quaternary ammonium compound</td>
<td>&lt; 20%</td>
</tr>
<tr>
<td>34590-94-8</td>
<td>dipropylene glycol monomethyl ether</td>
<td>&lt; 10%</td>
</tr>
<tr>
<td>67-63-0</td>
<td>2-propanol</td>
<td>&lt; 5%</td>
</tr>
<tr>
<td>5989-27-5</td>
<td>(R)-p-mentha-1,8-diene</td>
<td>&lt; 1%</td>
</tr>
</tbody>
</table>

4 First aid measures

- Description of first aid measures
- General information Immediately remove any clothing soiled by the product.
- After inhalation Supply fresh air; consult doctor in case of complaints.
- 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.

5 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture
  In case of fire, the following can be released:
  Carbon monoxide and carbon dioxide (CO, CO2)
  Nitrogen oxides (NOx)
Trade name: Novaclin Super PI

Sulphur oxides (SOX)
In certain fire conditions, traces of other toxic gases cannot be excluded.

- **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.
  Ensure adequate ventilation
- **Environmental precautions:** Do not allow product to reach sewage system or any water course.
- **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.
    Ensure good ventilation/exhaustion at the workplace.
    Avoid contact with eyes and skin.
  - **Information about protection against explosions and fires:**
    Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
  - **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
  - **Information about storage in one common storage facility:** Store away from foodstuffs.
  - **Further information about storage conditions:**
    Store in cool, dry conditions in well sealed receptacles.
    Protect from frost.
    Time of storage: max. 18 month

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>Substance</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>34590-94-8 dipropylene glycol monomethyl ether</td>
<td>600 mg/m³, 100 ppm</td>
<td>Short-term value: 900 mg/m³, 150 ppm</td>
<td>Long-term value: 600 mg/m³, 100 ppm</td>
<td>Skin</td>
<td>Skin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin</td>
<td>Skin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short-term value: 909 mg/m³, 150 ppm</td>
<td>Long-term value: 606 mg/m³, 100 ppm</td>
<td>Skin</td>
<td>Skin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Short-term value: 150 ppm</td>
<td>Long-term value: 100 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Short-term value: 910 mg/m³, 150 ppm</td>
</tr>
</tbody>
</table>

| 67-63-0 2-propanol | 980 mg/m³, 400 ppm | Short-term value: 1225 mg/m³, 500 ppm | Long-term value: 980 mg/m³, 400 ppm | BEI | BEI |
| | | | | Short-term value: 400 ppm | Long-term value: 200 ppm |
| | | | | | Short-term value: 400 ppm | Long-term value: 200 ppm |

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
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not inhale gases / vapors / aerosols.
Do not eat, drink, smoke or sniff while working.

Breathing equipment:

Not necessary if room is well-ventilated.
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

Nitrile rubber, NBR

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.
Trade name: Novaclin Super PI

- **Eye protection:** Tightly sealed goggles.
- **Body protection:** Protective work clothing.

**9 Physical and chemical properties**

- **Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:**
    - **Form:** Fluid
    - **Color:** Light yellow
    - **Odor:** Product specific
  - **Change in condition**
    - **Melting point/Melting range:** not applicable
    - **Boiling point/Boiling range:** undetermined
  - **Flash point:** > 61°C (> 142°F) (ASTM D93 c.c)
  - **Auto igniting:** Product is not selfigniting.
  - **Danger of explosion:** Product does not present an explosion hazard.
  - **Density at 20°C (68°F):** ~ 0.980 g/cm³ (ISO 2811)
  - **Solubility in / Miscibility with Water:** Emulsifiable

**10 Stability and reactivity**

- **Reactivity**
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
  - **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:**
    - **69011-36-5 isotridecanol, oxethylated**
      - Oral LD50 > 2000 mg/kg (rat)
      - *trade secret: quaternary ammonium compound*
      - Oral LD50 > 2000 mg/kg (rat)
    - **34590-94-8 dipropylene glycol monomethyl ether**
      - Oral LD50 5130 mg/kg (rat)
      - Dermal LD50 > 19000 mg/kg (rabbit)
      - **67-63-0 2-propanol**
        - Oral LD50 4570 mg/kg (rat)
        - Dermal LD50 12800 mg/kg (rabbit)
        - Inhalative LC50/4 h 30 mg/l (rat)

(Contd. on page 6)
Trade name: Novaclin Super PI

5989-27-5 (R)-p-mentha-1,8-diene

<table>
<thead>
<tr>
<th></th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4400 mg/kg (rat)</td>
<td>&gt; 5000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

- 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

- Toxicity
  - Acquatic toxicity: No further relevant information available.
- Additional 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
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

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

- DOT regulations:
  - Hazard class: -
- Land transport ADR/RID (cross-border)
  - ADR/RID class: -
- Maritime transport IMDG:
  - IMDG Class: -
- Air transport ICAO-TI and IATA-DGR:
  - ICAO/IATA Class: -
- Special precautions for user Not applicable.
Transport/Additional information: Not dangerous according to the above specifications.

15 Regulatory information

- Canadian substance lists
  - Canadian domestic substances list (DSL):
    All ingredients are listed.
  - Canadian ingredient disclosure list (limit 0.1%):
    None of the ingredients is listed.
  - Canadian ingredient disclosure list (limit 1%):
    | Code      | Name                           |
    |-----------|--------------------------------|
    | 34590-94-8| dipropylene glycol monomethyl ether |
    | 67-63-0   | 2-propanol                     |

- 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):
      | Code    | Name                |
      |---------|---------------------|
      | 67-63-0 | 2-propanol         |
  - 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.
  - IARC (International Agency for Research on Cancer)
    | Code    | Name                        | Grade |
    |---------|-----------------------------|-------|
    | 67-63-0 | 2-propanol                 | 3     |
    | 5989-27-5| (R)-p-mentha-1,8-diene     | 3     |
  - NTP (National Toxicology Program)
    None of the ingredients is listed.

- TLV (Threshold Limit Value established by ACGIH)
<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>2-propanol</td>
<td>A4</td>
</tr>
</tbody>
</table>

- 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.
Trade name: Novaclin Super PI

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

- 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 buyers 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.

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.