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

- **Product identifier**
- **Trade name:** Zr-Nanoxide Z/SP

- **Relevant identified uses of the substance or mixture and uses advised against**
  No further relevant information available.

- **Application of the substance / the preparation:** Preparation

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    SOLARONIX SA
    Rue de l’Ouriette 129, CH-1170 Aubonne, Switzerland
    info@solaronix.com
    T +41 21 821 22 80
    www.solaronix.com
    F +41 21 821 22 89
    info@solaronix.com

- **Emergency telephone number:**
  - France (ORFILA 24h/24) - Tel : +33 (0)1 45 42 59 59
  - Ireland - Tel : 00 353 1 8092568 - 00 353 1 8379964 (24h/24)
  - EU Tel : 112

2 Hazards identification

- **Classification of the substance or mixture**

  - **Classification according to Regulation (EC) No 1272/2008 :**
    GHS07

    Skin Irrit. 2, H315 Causes skin irritation.

  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC :** Not applicable.

  - **Information concerning particular hazards for human and environment:**
    The product has to be labelled in the latest valid version according to the calculation procedure of the "General Classification guideline for preparations of the EU".

  - **Classification system:**
    The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **Label elements**

  - **Labelling according to Regulation (EC) No 1272/2008**
    The product is classified and labelled according to the CLP regulation.

  - **Hazard pictograms**

    GHS07

- **Signal word** Warning

  - **Hazard statements**
    H315 Causes skin irritation.

  - **Precautionary statements**
    P280 Wear protective gloves/protective clothing/eye protection/face protection.
    P264 Wash thoroughly after handling.

(Contd. on page 2)
Trade name: Zr-Nanoxide Z/SP

(Contd. of page 1)

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture: consisting of the following components.

<table>
<thead>
<tr>
<th>Dangerous components:</th>
</tr>
</thead>
<tbody>
<tr>
<td>8000-41-7 terpinéol (mélange d'isomères)</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
- After excessive inhalation: Supply fresh air; consult a doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult a doctor.
- Information for doctor:
- Most important symptoms and effects, both acute and delayed: No further relevant information available.
- Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Firefighting measures

- Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Reference to other sections: See Section 7 for information on safe handling. See Section 8 for information on personal protective equipment.

(Contd. on page 3)
7 Handling and storage

- **Handling:**
  - **Precautions for safe handling:** No special precautions are necessary if used correctly.
  - **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** No special requirements.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:** None.
  - **Specific end use(s):** No further relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
  - **Ingredients with limit values that require monitoring at the workplace:**

<table>
<thead>
<tr>
<th>1314-23-4 zirconium dioxide (50-100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WEL (Great Britain)</strong></td>
</tr>
<tr>
<td>Short-term value: 10 mg/m³</td>
</tr>
<tr>
<td>Long-term value: 5 mg/m³ as Zr</td>
</tr>
<tr>
<td><strong>MAK (Switzerland)</strong></td>
</tr>
<tr>
<td>Long-term value: 5e mg/m³ als Zr berechnet</td>
</tr>
</tbody>
</table>

- **Additional information:**
  As a basis for the production of this document, the most current valid lists were used.

- **Exposure controls**
  - **Personal protective equipment:**
    - **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
    - **Respiratory protection:** Not required.
  - **Protection of hands:**
    The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - **Gloves material:**
    The selection of suitable gloves does not only depend on the material, but also on further marks of quality which may vary 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 before use.

- **Eye protection:** Goggles recommended during refilling.
### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
<td></td>
</tr>
<tr>
<td>Appearance: Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>According to product specification</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour 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>Undetermined.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammability (solid, gaseous)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Self-igniting</td>
<td>Product is not self igniting.</td>
</tr>
<tr>
<td>Danger of explosion</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Lower limits</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper limits</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water</td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td>Segregation coefficient (n-octanol/water)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solvent content</td>
<td></td>
</tr>
<tr>
<td>VOC (EC)</td>
<td>0.00 %</td>
</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available</td>
</tr>
</tbody>
</table>

### 10 Stability and reactivity

<table>
<thead>
<tr>
<th>Stability and reactivity</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td></td>
</tr>
<tr>
<td>Chemical stability</td>
<td></td>
</tr>
<tr>
<td>Thermal decomposition / conditions to be avoided:</td>
<td>No decomposition if used according to specifications.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>No dangerous reactions known.</td>
</tr>
</tbody>
</table>
11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - Primary irritant effect:
    - On the skin: No irritant effect.
    - On the eyes: No irritant effect.
  - Sensitization: No sensitizing effects known.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behaviour 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 (German Regulation) (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.

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

13 Disposal considerations

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

- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
- ADR, ADN, IMDG, IATA: Not classified as hazardous for transport
### 15 Regulatory information

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

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

- **Relevant phrases**
  - H315 Causes skin irritation.
  - R38 Irritating to skin.

- **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
  - IATA: International Air Transport Association
  - GHS: Globally Harmonized System of Classification and Labelling of Chemicals
  - VOC: Volatile Organic Compounds (USA, EU)