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

- Product identifier
- Trade name: **Ti-Nanoxide T300/SC**
- Relevant identified uses of the substance or mixture and uses advised against
  - Application of the substance / the preparation
    - Screen-Printing Opaque Nanocrystalline Titanium Dioxide
- 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: Swiss Toxicological Information Center: +41 44 251 51 51

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.
      - Eye Irrit. 2 H319 Causes serious eye irritation.
- Classification according to Directive 67/548/EEC or Directive 1999/45/EC
  - Xi; Irritant
    - R36/38: Irritating to eyes and skin.
  - 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.
    - H319 Causes serious eye irritation.

(Contd. on page 2)
Safety data sheet
according to 1907/2006/EC, Article 31

Trade name: Ti-Nanoxide T300/SC

Precautionary statements
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 Specific treatment (see on this label).
- P362 Take off contaminated clothing and wash before reuse.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.

Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients
- Chemical characterization: Mixtures
- Description:
  Paste containing 15-20 nm titanium dioxide (TiO2) anatase particles CAS 1317-70-0

- Dangerous components:
<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>8000-41-7 terpinéol (mélange d'isomères)</td>
<td>50-100%</td>
</tr>
<tr>
<td>XI R38</td>
<td>Skin Irrit. 2, H315</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:
    In case of unconsciousness place patient in a stable laying down side position for transportation.
  - After skin contact: Immediately wash with water and soap and rinse thoroughly.
  - After eye contact:
    Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - 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.
Trade name: Ti-Nanoxide T300/SC

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions:
  - Dilute with plenty of water.
  - 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.
  - See Section 13 for disposal information.

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.
- Conditions for safe storage, including any incompatibilities
- 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: Keep container tightly sealed.
- Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see section 7.
- Control parameters
- Ingredients with limit values that require monitoring at the workplace:
  - The product does not contain any significant quantities of materials with critical values that have to be monitored at the workplace.
- 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: Keep away from food, beverages and petfood. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes and skin.
- Respiratory protection: Not required.
Safety data sheet
according to 1907/2006/EC, Article 31

Trade name: Ti-Nanoxide T300/SC

- Protection of hands:
  - Protective gloves
  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:
  - Tightly sealed goggles

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:
  - Form: Liquid
  - Colour: According to product specification
  - Odour: Characteristic
  - Odour threshold: Not determined.
- pH-value: Not determined.
- Change in condition
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: 100°C
- Flash point: Not applicable.
- Flammability (solid, gaseous): Not applicable.
- Ignition temperature: Not applicable.
- Decomposition temperature: Not determined.
- Self-igniting: Product is not self igniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.
- Vapour pressure at 20°C: 23 hPa
- Density: Not determined.
- Relative density: Not determined.
- Vapour density: Not determined.
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 01.09.2014
Version number 1
Revision: 01.09.2014

Trade name: Ti-Nanoxide T300/SC

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10 Stability and reactivity

- Reactivity
- Chemical stability
- 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: Irritant to skin and mucous membranes.
    - On the eye: Irritating effect.
    - Sensitization: No sensitizing effects known.
- Additional toxicological information:
  The product shows the following hazards according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
  Irritant

12 Ecological information

- Toxicity
  - Acquatic 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 1 (German Regulation) (Self-assessment): slightly hazardous for water.
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.

(Contd. on page 6)
Trade name: Ti-Nanoxide T300/SC

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.
  - **Recommended cleansing agents**: Water, if necessary together with cleansing agents.

14 Transport information
- **Land transport ADR/RID (cross-border)**:
  - **ADR/RID class**: -
- **Maritime transport IMDG**:
  - **IMDG Class**: -
  - **Marine pollutant**: No
- **Air transport ICAO-TI and IATA-DGR**:
  - **ICAO/IATA Class**: -
- **UN "Model Regulation"**: -
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

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**
  - H272 May intensify fire; oxidiser.
  - H314 Causes severe skin burns and eye damage.
  - H315 Causes skin irritation.
  - R35 Causes severe burns.
  - R38 Irritating to skin.
  - R8 Contact with combustible material may cause fire.

- **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)
<table>
<thead>
<tr>
<th>Trade name: <strong>Ti-Nanoxide T300/SC</strong></th>
</tr>
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RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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