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

- Product identifier
  - Trade name: TCO22-7
- CAS Number:
  - 65997-17-3
- EINECS Number:
  - 266-046-0
- Relevant identified uses of the substance or mixture and uses advised against
  - Application of the substance / the preparation: Transparent Conducting Oxide Coated Glass
- 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
    - The substance is not classified according to the CLP regulation.
  - Information concerning particular hazards for human and environment: Not applicable.
- Label elements
  - Labelling according to Regulation (EC) No 1272/2008: Void
  - Hazard pictograms: Void
  - Signal word: Void
  - Hazard statements: Void
  - Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description: 65997-17-3 Fibrous Glass
- Identification number(s)
- EINECS Number: 266-046-0
- Additional information:
  - TCO22-7 is a 2.2 mm thick soda lime glass coated on one side with a conductive fluorine doped tin oxide layer, having a sheet resistivity of 7 Ω/sq.

(Contd. on page 2)
4 First aid measures

- Description of first aid measures
  - General information: No special measures required.
  - 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
  - Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Mount respiratory protective device.

- Environmental precautions: No special measures required.

- Methods and material for containment and cleaning up: Pick up mechanically.

- Reference to other sections
  No dangerous substances are released.
  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 measures required.
  - 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: None.

- 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**: Not required.
- **Additional information**: As a basis for the production of this document, the most current valid lists were used.
- **Exposure controls**
- **Personal protective equipment**: Not required.
- **General protective and hygienic measures**: The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection**: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands**:
  - **Gloves material**: 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.
- **Eye protection**:
  - **Tightly sealed goggles**

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance**
  - **Form**: Solid
  - **Colour**: Colourless
  - **Odour**: Odourless
  - **Odour threshold**: Not determined.
- **pH-value**: Not applicable.
- **Change in condition**
  - **Melting point/Melting range**: Undetermined.
  - **Boiling point/Boiling range**: Undetermined.
- **Flash point**: Not applicable.
- **Flammability (solid, gaseous)**: Product is not flammable.
- **Ignition temperature**: Not applicable.
- **Decomposition temperature**: Not determined.
Trade name: **TCO22-7**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-igniting</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Danger of explosion</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Explosion limits</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Density at 20°C</td>
<td>2.45 g/cm³</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water</td>
<td>Insoluble.</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 applicable.</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solvent content</td>
<td></td>
</tr>
<tr>
<td>Organic solvents</td>
<td>0.0 %</td>
</tr>
<tr>
<td>VOC (EC)</td>
<td>0.00 %</td>
</tr>
<tr>
<td>Solids content</td>
<td>100.0 %</td>
</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

### 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: No irritant effect.
    - On the eye: No irritant effect.
    - Sensitization: No sensitizing effects known.
- Additional toxicological information: When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 01.05.2011
Version number 1
Revision: 01.05.2011

Trade name: TCO22-7

The substance is not subject to classification according to the latest version of the EU lists.

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: Generally not hazardous for water.
  - 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: Smaller quantities can be disposed of with household waste.
- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- Land transport ADR/RID (cross-border):
  - ADR/RID class: -
- Maritime transport IMDG:
  - IMDG Class: Classe: Cannot be considered as being part of the 4.3 classification (*)
  - Marine pollutant: No
- Air transport ICAO-TI and IATA-DGR:
  - ICAO/IATA Class: Classe: Cannot be considered as being part of the 4.3 classification (*)
  - 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.

(Contd. on page 6)
**Trade name:** TCO22-7

<table>
<thead>
<tr>
<th>Abbreviations and acronyms:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</td>
</tr>
<tr>
<td>RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)</td>
</tr>
<tr>
<td>IMDG: International Maritime Code for Dangerous Goods</td>
</tr>
<tr>
<td>IATA: International Air Transport Association</td>
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<tr>
<td>IATA-DGR: Dangerous Goods Regulations by the &quot;International Air Transport Association&quot; (IATA)</td>
</tr>
<tr>
<td>ICAO: International Civil Aviation Organization</td>
</tr>
<tr>
<td>ICAO-TI: Technical Instructions by the &quot;International Civil Aviation Organization&quot; (ICAO)</td>
</tr>
<tr>
<td>GHS: Globally Harmonized System of Classification and Labelling of Chemicals</td>
</tr>
<tr>
<td>EINECS: European Inventory of Existing Commercial Chemical Substances</td>
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<tr>
<td>CAS: Chemical Abstracts Service (division of the American Chemical Society)</td>
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<tr>
<td>VOC: Volatile Organic Compounds (USA, EU)</td>
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