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

- **Product identifier**
- **Trade name:** Mosalyte TDE-025
- **Relevant identified uses of the substance or mixture and uses advised against**
  No further relevant information available.
- **Application of the substance / the preparation:** Ionic Liquid Iodide Based Redox Electrolyte
- **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.
    - Eye Irrit. 2    H319    Causes serious eye irritation.
    - STOT SE 3    H335    May cause respiratory irritation.

  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC:**
    - Xi; Irritant
    - R36/37/38: Irritating to eyes, respiratory system 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

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

Trade name: **Mosalyte TDE-025**

- **Hazard statements**
  - H315 Causes skin irritation.
  - H319 Causes serious eye irritation.
  - H335 May cause respiratory irritation.

- **Precautionary statements**
  - P271 Use only outdoors or in a well-ventilated area.
  - P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
  - P280 Wear protective gloves/protective clothing/eye protection/face protection.
  - P264 Wash thoroughly after handling.
  - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P312 Call a POISON CENTER or doctor/physician if you feel unwell.
  - P304+P352 IF ON SKIN: Wash with plenty of soap and water.
  - P405 Store locked up.
  - P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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

### 3 Composition/information on ingredients

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

  **Dangerous components:**

  | CAS: 4333-62-4 | 1,3-dimethylimidazolium iodide | Xi R36/37/38 | Skin Irr. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 |
  | CAS: 35935-34-3 | 1-ethyl-3-methylimidazolium iodide | Xi R36/37/38 | Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 |
  | CAS: 7553-56-2 | Iodine | Xn R20/21; N R50 | Aquatic Acute 1, H400; Acute Tox. 4, H312; Acute Tox. 4, H332 |

- **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.
Trade name: **Mosalyte TDE-025**

- **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.
- **Advice for firefighters**
  - **Protective equipment:** 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). Ensure adequate ventilation.
- **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.
Trade name: Mosalyte TDE-025

(Contd. of page 3)

- Control parameters
  - Ingredients with limit values that require monitoring at the workplace:
    - 7553-56-2 iodine (1%<)
      - WEL (Great Britain) [Short-term value: 1.1 mg/m³, 0.1 ppm]
  - Additional information:
    - As a basis for the production of this document, the most current valid lists were used.

- Exposure controls
  - 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:
    - 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:
    - 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.

(Contd. on page 5)
Trade name: **Mosalyte TDE-025**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<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>· 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 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>· Partition 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>· 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:** Irritant to skin and mucous membranes.
- **On the eyes:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
Trade name: Mosalyte TDE-025

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 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.
      - 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: Void

- UN proper shipping name
  - ADR, ADN, IMDG, IATA: Void

- Transport hazard class(es)
  - ADR, ADN, IMDG, IATA
    - Class: Void

- Packing group
  - ADR, IMDG, IATA: Void

- Environmental hazards:
  - Marine pollutant: No
Trade name: **Mosalyte TDE-025**

(Contd. of page 6)

<table>
<thead>
<tr>
<th>· Special precautions for user</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>· UN &quot;Model Regulation&quot;:</td>
<td>-</td>
</tr>
</tbody>
</table>

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**
  - H312 Harmful in contact with skin.
  - H315 Causes skin irritation.
  - H319 Causes serious eye irritation.
  - H332 Harmful if inhaled.
  - H335 May cause respiratory irritation.
  - H400 Very toxic to aquatic life.
  - R20/21 Harmful by inhalation and in contact with skin.
  - R36/37/38 Irritating to eyes, respiratory system and skin.
  - R50 Very toxic to aquatic organisms.

· **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