

**WTW Safety Data Sheet**  
According to EC Directives 91/155/EEC

**1. Identification of the substance/preparation and of the company/undertaking**

*Product name:*

**Electrolyte Solution ELY/ORP/AG**

**Ord. No.:** 109 735

**Model:** ELY/ORP/AG

*Manufacturer:*

WTW Wissenschaftlich-Technische Werkstätten GmbH, Dr.-Karl-Slevogt-Straße 1, D-82362 Weilheim, Germany, Tel.: +49(0)881 183-0, Fax.: +49(0)881 183-420

Emergency telephone:  
(001)-703-527-3887

**2. Composition/information on ingredients**

*Chemical characterization:* Aqueous saline solution

*Ingredients:* Potassium nitrate (with low quantity of potassium chloride in glycerol and water)

*Hazard symbols:* Oxidizing (O)

*R-phrases:* 8

*Content:* < 20 %

*CAS-No.:* 7757-79-1

*EINECS-No.:* 231-818-8

**3. Hazards identification**

No hazardous product as specified in Directive 67/548/EEC

**4. First aid measures**

*After inhalation:* Fresh air.

*After skin contact:* Wash off with plenty of water.  
Remove contaminated clothing.

*After eye contact:* Rinse out with plenty of water with the eyelid held wide open.

*After ingestion:* Make the injured person drink plenty of water.  
Immediately summon doctor.

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#### 5. Fire-fighting measures

|                                        |                                                                                                                                                                                   |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Suitable extinguishing media:</i>   | To suit environment.                                                                                                                                                              |
| <i>Unsuitable extinguishing media:</i> | No information available.                                                                                                                                                         |
| <i>Special risks:</i>                  | Potassium nitrate in pure state is fire-promoting. Development of hazardous vapours possible in the event of fire.                                                                |
| <i>Other information:</i>              | The following may develop in the event of fire:<br>Nitrogen oxides and acrolein<br>Use chemical protection clothing and self-contained breathing apparatus in the dangerous zone. |

#### 6. Accidental release measures

|                                                 |                                                                                                                                     |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <i>Personal-related precautionary measures:</i> | Avoid generation of dusts. Do not inhale dusts.<br>Keep away from sources of ignition.                                              |
| <i>Environmental-protection measures:</i>       | Do not allow to enter sewerage system.                                                                                              |
| <i>Procedures for cleaning/absorption:</i>      | Take up with liquid-absorbent, non combustible material (e.g. sand).<br>Forward for disposal.<br>Clean up affected area with water. |

#### 7. Handling and storage

|                  |                                                                                                                                                                           |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Handling:</i> | No further requirements                                                                                                                                                   |
| <i>Storage:</i>  | Tightly closed. Keep away from sources of ignition and heat.<br>Do not store together with oxidizers and combustible substances. Storage class : 10 (Combustible liquids) |

#### 8. Exposure control/personal protection

|                                     |                                                                           |
|-------------------------------------|---------------------------------------------------------------------------|
| <i>Specific control parameters:</i> | None                                                                      |
| Personal protective equipment       |                                                                           |
| <i>Respiratory protection:</i>      | Required when aerosols are generated.                                     |
| <i>Eye protection:</i>              | Protective glasses                                                        |
| <i>Hand protection:</i>             | Gloves                                                                    |
| <i>Industrial hygiene:</i>          | Wash hands after working with substance.<br>Change contaminated clothing. |

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### 9. Physical and chemical properties

|                                         |                           |                         |
|-----------------------------------------|---------------------------|-------------------------|
| <i>Form:</i> Liquid                     | <i>Colour:</i> Colourless | <i>Odour:</i> Odourless |
| <i>pH-value</i>                         | neutral 25°C              |                         |
| <i>Melting temperature:</i>             | -14°C                     |                         |
| <i>Boiling temperature:</i>             | about 118°C               |                         |
| <i>Ignition temperature:</i>            | °C                        |                         |
| <i>Flash point:</i>                     | °C                        |                         |
| <i>Explosion limite lower:</i>          | /                         |                         |
| <i>                          upper:</i> | /                         |                         |
| <i>Density:</i>                         | 1,23 g/cm <sup>3</sup>    |                         |
| <i>Solubility in water:</i>             | miscible                  |                         |
| <i>Thermal decomposition:</i>           |                           |                         |

### 10. Stability and reactivity

|                                          |                                                                              |
|------------------------------------------|------------------------------------------------------------------------------|
| <i>Conditions to be avoided:</i>         | Do not evaporate the solution.                                               |
| <i>Substances to be avoided:</i>         | All oxidizers and combustible substances.<br>Explosive reaction is possible. |
| <i>Hazardous decomposition products:</i> | Nitrogen oxides and acrolein.                                                |
| <i>Further information:</i>              | None                                                                         |

### 11. Toxicological information

|                                           |                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Acute toxicity:</i>                    | LD 50 (oral, rat): 3750 mg/kg for potassium nitrate                                                                                                                                                                                                                                             |
| <i>Further toxicological information:</i> | Potassium nitrate is not much toxic.<br>After ingestion: mucosal irritation, nausea, diahroea, vomiting.<br>After absorption of large quantities: methaemoglobinaemia with headache, cardiac arrhythmia, drop in blood pressure, dyspnoea, spasms and cyanosis (blue colouration of the blood). |

### 12. Ecological information

|                          |                                                                                                                                        |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <i>Ecotoxic effects:</i> | Dangerous for microorganisms in water<br>toxic effects on fish<br>Do not allow to enter drinking water supplies, waste water, or soil. |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------|

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#### 13. Disposal considerations

*Products:* There are no uniform regulations for the disposal of chemicals or residues. The disposal is regulated through corresponding regional laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.

*Packaging:* Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, noncontaminated packaging may be treated like household waste or recycled.

#### 14. Transport information

Not subject to transport regulations.

#### 15. Regulatory information

Labelling according to EC directives

*Symbol:* No hazardous product as specified in Directive  
*R-phrases:* 67/548/EEC.  
*S-phrases:*

German regulations

*Water pollution class;* WGK: 1 Slightly polluting substance

*Regulation on combustible liquids;* VbF: /

*Other regulations:* None

#### 16. Other information

Date of issue: 21.03.2006  
Supersedes edition of  
Reason for alteration: First edition

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.