1 Identification

- **Product identifier**: Dissolved Oxygen Internal Filling Solution
- **Trade name**: Potassium Chloride/Glycerol Solution
- **Product number**: FS
- **Product description**: Polarographic type Dissolved Oxygen Electrode Internal Filling Solution (Electrolyte)
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier**: ASI
  - **Address**: 12800 Park One Drive
  - **City**: Sugar Land TX, 77478
- **Emergency telephone number**: Bill Boyne 281-565-8818 x 133

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - The product is not classified according to the Globally Harmonized System (GHS).

- **Label elements**
  - **GHS label elements**: Non-Regulated Material
  - **Hazard pictograms**: Non-Regulated Material
  - **Signal word**: Non-Regulated Material
  - **Hazard statements**: Non-Regulated Material

- **Classification system**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 0
    - Fire = 0
    - Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)**
    - Health = 0
    - Fire = 0
    - Reactivity = 0

3 Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Description</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>water, distilled, conductivity or of similar purity</td>
<td>70-90%</td>
</tr>
<tr>
<td>7447-40-7</td>
<td>potassium chloride</td>
<td>5-10%</td>
</tr>
</tbody>
</table>

- **Chemical characterization**: Mixtures
  - **Description**: Mixture of the substances listed below with nonhazardous additions.

- **Dangerous Components**
  - 56-81-5 Glycerin 15-35%

4 First-aid measures

- **Description of first aid measures**
  - **General information**: No special measures required.
  - **After inhalation**: Supply fresh air; consult 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**: Give large amounts of water. If symptoms persist consult doctor.

- **Most important symptoms and effects, both acute and delayed**: No further relevant information available.

(Contd. on page 2)
Trade name: Potassium Chloride/Glycerol Solution

- **Indication of any immediate medical attention and special treatment needed**
  No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
  - Suitable extinguishing agents:
    - CO2, extinguishing 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 (ie. 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 protection equipment.
  - See Section 13 for disposal information.

### 7 Handling and storage

- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** 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 systems:** No further data; see section 7.

- **Control parameters**

<table>
<thead>
<tr>
<th>Components with occupational exposure limits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>56-81-5 Glycerin</td>
</tr>
<tr>
<td>PEL</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>TLV</td>
</tr>
</tbody>
</table>

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**
  - **Personal protective equipment:**
  - **General protective and hygienic measures:**
    - The usual precautionary measures for handling chemicals should be followed.
  - **Breathing equipment:** Not required.
  - **Protection of hands:** Not required.
  - **Material of gloves** Not required.
  - **Penetration time of glove material** Not applicable.
Trade name: Potassium Chloride/Glycerol Solution

- **Eye protection**: Not required.

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
  - **Appearance**:
    - **Form**: Liquid
    - **Color**: Colorless
    - **Odor**: Odorless
    - **Odor threshold**: Not determined.
  - **pH-value @ 20 °C (68 °F)**: 7
  - **Change in condition**
    - **Melting point/Melting range**: Not determined.
    - **Boiling point/Boiling range**: 100 °C (212 °F)
  - **Flash point**: Not applicable.
  - **Flammability (solid, gaseous)**: Not applicable.
  - **Ignition temperature**: 400 °C (752 °F)
  - **Decomposition temperature**: Not determined.
  - **Auto igniting**: Product is not selfigniting.
  - **Danger of explosion**: Product does not present an explosion hazard.
  - **Explosion limits**:
    - **Lower**: 0.0 Vol %
    - **Upper**: 0.0 Vol %
  - **Vapor pressure @ 20 °C (68 °F)**: 23 hPa (17 mm Hg)
  - **Density**: Not determined.
  - **Relative density**: Not determined.
  - **Vapour density**: Not determined.
  - **Evaporation rate**: Not determined.
  - **Solubility in / Miscibility with**
    - **Water**: Not miscible or difficult to mix.
  - **Partition coefficient (n-octanol/water)**: Not determined.
  - **Viscosity**:
    - **Dynamic**: Not determined.
    - **Kinematic**: Not determined.
  - **Solvent content**:
    - **Organic solvents**: 20.0 %
    - **Water**: 71.0 %
    - **VOC content**: 24.0 %
  - **Solids content**: 5.0 %
  - **Other information**: No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.

(Contd. on page 4)
Trade name: Potassium Chloride/Glycerol Solution

- **Chemical stability** Product is stable under normal conditions.
- **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 irritating effect.
    - **Sensitization:** No sensitizing effects known.
  - **Additional toxicological information:**
    The product is not subject to classification according to internally approved calculation methods for preparations:
    When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    None of the ingredients is listed.
  - **NTP (National Toxicology Program)**
    None of the ingredients is listed.
  - **OSHA-Ca (Occupational Safety & Health Administration)**
    None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
  - **Persistence and degradability** No further relevant information available.
  - **Bioaccumulative potential** No further relevant information available.
  - **Mobility in soil** No further relevant information available.
  - **Additional ecological information:**
    - **General notes:** Water hazard class 1 (Self-assessment): slightly 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 packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.

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Trade name: Potassium Chloride/Glycerol Solution

### 14 Transport information

- **UN-Number**
- **DOT, ADR, ADN, IMDG, IATA**  Non-Regulated Material
- **UN proper shipping name**
- **DOT, ADR, ADN, IMDG, IATA**  Non-Regulated Material
- **Transport hazard class(es)**
- **DOT, ADR, ADN, IMDG, IATA**  Non-Regulated Material
- **Class**
- **Packing group**
- **DOT, ADR, IMDG, IATA**  Non-Regulated Material
- **Environmental hazards:**
  - **Marine pollutant:**  No
  - **Special precautions for user**  Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**  Not applicable.
- **UN "Model Regulation":**  -

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - **Section 355 (extremely hazardous substances):**
      - None of the ingredients is listed.
    - **Section 313 (Specific toxic chemical listings):**
      - None of the ingredients is listed.
  - **TSCA (Toxic Substances Control Act):**
    - All ingredients are listed.
  - **Proposition 65**
    - **Chemicals known to cause cancer:**
      - None of the ingredients is listed.
    - **Chemicals known to cause reproductive toxicity for females:**
      - None of the ingredients is listed.
    - **Chemicals known to cause reproductive toxicity for males:**
      - None of the ingredients is listed.
    - **Chemicals known to cause developmental toxicity:**
      - None of the ingredients is listed.
  - **Carcinogenic categories**
    - **EPA (Environmental Protection Agency)**
      - None of the ingredients is listed.
    - **TLV (Threshold Limit Value established by ACGIH)**
      - None of the ingredients is listed.
    - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
      - None of the ingredients is listed.
    - **GHS label elements**  Non-Regulated Material
    - **Hazard pictograms**  Non-Regulated Material

(Contd. on page 6)
Trade name: Potassium Chloride/Glycerol Solution

- **Signal word** Non-Regulated Material
- **Hazard statements** Non-Regulated Material

**National regulations:**
The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

**State Right to Know**
- 56-81-5 Glycerin 15-35%
- 7447-40-7 potassium chloride 5-10%
- 7732-18-5 water, distilled, conductivity or of similar purity 70-90%
- 56-81-5 Glycerin 20%

**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.

- **Date of preparation / last revision** 07/02/2014 / 1
- **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
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - VOC: Volatile Organic Compounds (USA, EU)
- **Data compared to the previous version altered.**
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