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
  - **State**: TX, **Zip**: 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**: Health = 0
    - **Fire**: Fire = 0
    - **Reactivity**: Reactivity = 0

3 Composition/information on ingredients

- **7732-18-5 water, distilled, conductivity or of similar purity**: 70-90%
- **7447-40-7 potassium chloride**: 5-10%

- **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

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
  - Components with occupational exposure limits:
    56-81-5 Glycerin
    - PEL: Long-term value: 15* 5** mg/m³ mist; *total dust **respirable fraction
    - TLV: TLV withdrawn-insufficient data human occup. exp.
- 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.

(Contd. on page 3)
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**
  - **Vapour density**
  - **Evaporation rate**
  - **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.
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.
Trade name: Potassium Chloride/Glycerol Solution

14 Transport information

- UN-Number
- DOT, ADR, ADN, IMDG, IATA
- UN proper shipping name
- DOT, ADR, ADN, IMDG, IATA
- Transport hazard class(es)
- DOT, ADR, ADN, IMDG, IATA
- Class
- Packing group
- DOT, ADR, IMDG, IATA
- 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)
Safety Data Sheet (SDS)

Printing date 07/02/2014
Revision date: 07/02/2014

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**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin</td>
<td>15-35%</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>5-10%</td>
</tr>
<tr>
<td>Water, distilled, conductivity or of similar purity</td>
<td>70-90%</td>
</tr>
<tr>
<td>Glycerin</td>
<td>20%</td>
</tr>
</tbody>
</table>

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**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.*
SDS / MSDS Created by MSDS Authoring Services (www.MSDSAuthoring.com)