



# Reference Cell Recharge, AgCl/KCl Gel

1501085 REV 1

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Revision Date: 06/21/2016 Date of Issue: 06/21/2016

Version: 1.0

### SECTION 1: IDENTIFICATION

#### Product Identifier

**Product Form:** Mixture

**Product Name:** Reference Cell Recharge, AgCl/KCl Gel

**Part Number:** 9210102, 9210220

**Synonyms:** Gelled Reference Solution

#### Intended Use of the Product

Rosemount TUPH Series Sensor Maintenance

#### Name, Address, and Telephone of the Responsible Party

##### Company

Emerson Automation Solutions | Rosemount

6021 Innovation Blvd.

Shakopee, MN 55379

#### Emergency Telephone Number

**Emergency Number** : Within USA and Canada: 1-800-424-9300 CCN725412

Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

### SECTION 2: HAZARDS IDENTIFICATION

#### Classification of the Substance or Mixture

##### GHS-US/CA Classification

Aquatic Acute 2 H401

Aquatic Chronic 3 H412

Full text of hazard classes and H-statements : see section 16

#### Label Elements

##### GHS-US/CA Labeling

##### Hazard Statements (GHS-US/CA)

: H401 - Toxic to aquatic life.

H412 - Harmful to aquatic life with long lasting effects.

##### Precautionary Statements (GHS-

##### US/CA)

: P273 - Avoid release to the environment.

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

#### Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

Unknown Acute Toxicity Not available

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### Mixture

Name	Product Identifier	% *	GHS Ingredient Classification
Water	(CAS No) 7732-18-5	73.98	Not classified
Potassium chloride	(CAS No) 7447-40-7	23	Not classified
Xanthan gum	(CAS No) 11138-66-2	2	Comb. Dust
Sodium benzoate	(CAS No) 532-32-1	1	Comb. Dust Eye Irrit. 2A, H319
Silver chloride	(CAS No) 7783-90-6	0.02	Met. Corr. 1, H290 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-phrases: see section 16

\*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

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**SECTION 4: FIRST AID MEASURES****Description of First-aid Measures**

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**Skin Contact:** Remove contaminated clothing. Gently wash with plenty of soap and water. Obtain medical attention if irritation develops or persists.

**Eye Contact:** Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if redness, pain, or irritation occurs.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

**Most Important Symptoms and Effects Both Acute and Delayed**

**General:** Not expected to present a significant hazard under anticipated conditions of normal use.

**Inhalation:** Prolonged exposure may cause irritation.

**Skin Contact:** Prolonged exposure may cause skin irritation.

**Eye Contact:** May cause slight irritation to eyes.

**Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** None expected under normal conditions of use.

**Indication of Any Immediate Medical Attention and Special Treatment Needed**

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

**SECTION 5: FIRE-FIGHTING MEASURES****Extinguishing Media**

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

**Special Hazards Arising From the Substance or Mixture**

**Fire Hazard:** Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

**Advice for Firefighters**

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Carbon oxides (CO, CO<sub>2</sub>). Halogenated compounds. Metal oxides.

**Other Information:** Do not allow run-off from fire fighting to enter drains or water courses.

**Reference to Other Sections**

Refer to section 9 for flammability properties.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****Personal Precautions, Protective Equipment and Emergency Procedures**

**General Measures:** Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapor, mist, spray).

**For Non-Emergency Personnel**

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

**For Emergency Personnel**

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

**Environmental Precautions**

Prevent entry to sewers and public waters. Avoid release to the environment.

**Methods and Materials for Containment and Cleaning Up**

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

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**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

**Reference to Other Sections**

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

**SECTION 7: HANDLING AND STORAGE****Precautions for Safe Handling**

**Precautions for Safe Handling:** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

**Conditions for Safe Storage, Including Any Incompatibilities**

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

**Incompatible Materials:** Strong acids, strong bases, strong oxidizers.

**Specific End Use(s)**

Rosemount TUpH Series Sensor Maintenance

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****Control Parameters**

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

**Exposure Controls**

**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** Gloves. Protective clothing. In case of splash hazard: safety glasses.



**Materials for Protective Clothing:** Chemically resistant materials and fabrics.

**Hand Protection:** Wear protective gloves.

**Eye Protection:** Chemical goggles or safety glasses.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

**Other Information:** When using, do not eat, drink or smoke

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****Information on Basic Physical and Chemical Properties**

<b>Physical State</b>	: Liquid
<b>Appearance</b>	: Not available
<b>Odor</b>	: Not available
<b>Odor Threshold</b>	: Not available
<b>pH</b>	: Not available
<b>Evaporation Rate</b>	: Not available
<b>Melting Point</b>	: Not available
<b>Freezing Point</b>	: Not available
<b>Boiling Point</b>	: Not available
<b>Flash Point</b>	: Not available

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Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20°C	: Not available
Relative Density	: Not available
Specific Gravity	: Not available
Solubility	: Not available
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available

## SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** Hazardous reactions will not occur under normal conditions.

**Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**Conditions to Avoid:** Direct sunlight, extremely high or low temperatures, and incompatible materials.

**Incompatible Materials:** Strong acids, strong bases, strong oxidizers.

**Hazardous Decomposition Products:** None known.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects - Product

**Acute Toxicity (Oral):** Not classified

**Acute Toxicity (Dermal):** Not classified

**Acute Toxicity (Inhalation):** Not classified

**LD50 and LC50 Data:** Not available

**Skin Corrosion/Irritation:** Not classified

**Eye Damage/Irritation:** Not classified

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** Prolonged exposure may cause irritation.

**Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation.

**Symptoms/Injuries After Eye Contact:** May cause slight irritation to eyes.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** None expected under normal conditions of use.

### Information on Toxicological Effects - Ingredient(s)

**LD50 and LC50 Data:**

<b>Potassium chloride (7447-40-7)</b>	
LD50 Oral Rat	2600 mg/kg
<b>Sodium benzoate (532-32-1)</b>	
LD50 Oral Rat	4070 mg/kg
<b>Xanthan gum (11138-66-2)</b>	
LD50 Oral Rat	> 45000 mg/kg

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**SECTION 12: ECOLOGICAL INFORMATION****Toxicity****Ecology - General:** Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

<b>Silver chloride (7783-90-6)</b>	
LC50 Fish 1	1.2 µg/l
EC50 Daphnia 1	0.22 µg/l
<b>Potassium chloride (7447-40-7)</b>	
LC50 Fish 1	1060 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	825 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	750 (750 - 1020) mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 2	880 mg/l (Exposure time: 24 h - Species: Daphnia magna)
<b>Sodium benzoate (532-32-1)</b>	
LC50 Fish 1	420 (420 - 558) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	650 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

**Persistence and Degradability**

<b>Reference Cell Recharge, AgCl/KCl Gel</b>	
<b>Persistence and Degradability</b>	May cause long-term adverse effects in the environment.

**Bioaccumulative Potential**

<b>Reference Cell Recharge, AgCl/KCl Gel</b>	
<b>Bioaccumulative Potential</b>	Not established.
<b>Sodium benzoate (532-32-1)</b>	
BCF Fish 1	(no bioaccumulation)
Log Pow	-2.13

**Mobility in Soil** Not available**Other Adverse Effects****Other Information:** Avoid release to the environment.**SECTION 13: DISPOSAL CONSIDERATIONS****Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, and international regulations**Additional Information:** Container may remain hazardous when empty. Continue to observe all precautions.**Ecology - Waste Materials:** Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.**SECTION 14: TRANSPORT INFORMATION**

<b>In Accordance with DOT</b>	Not regulated for transport.
<b>In Accordance with IMDG</b>	Not regulated for transport.
<b>In Accordance with IATA</b>	Not regulated for transport.
<b>In Accordance with TDG</b>	Not regulated for transport.

**SECTION 15: REGULATORY INFORMATION****US Federal Regulations**

<b>Silver chloride (7783-90-6)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Potassium chloride (7447-40-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Sodium benzoate (532-32-1)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Xanthan gum (11138-66-2)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

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### Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### US State Regulations

Neither this product nor its chemical components appear on any US state lists.

### Canadian Regulations

#### Silver chloride (7783-90-6)

Listed on the Canadian DSL (Domestic Substances List)

#### Potassium chloride (7447-40-7)

Listed on the Canadian DSL (Domestic Substances List)

#### Sodium benzoate (532-32-1)

Listed on the Canadian DSL (Domestic Substances List)

#### Xanthan gum (11138-66-2)

Listed on the Canadian DSL (Domestic Substances List)

### Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Revision Date** : 06/21/2016

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR).

### GHS Full Text Phrases:

Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Comb. Dust	May form combustible dust concentrations in air
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Met. Corr. 1	Corrosive to metals Category 1
H290	May be corrosive to metals
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

NA GHS SDS 2015