1. IDENTIFICATION
1.1 Product Identifier: Potassium Bicarbonate Solution, P/N 601116.901
1.2 Product Use: For laboratory use only; for use only in performance verification of the nano ITC Instrument. Not for drug, household or other uses.
1.3 Supplier Information:
   - TA Instruments Inc.
   - 159 Lukens Drive
   - New Castle, DE 19720 - U.S.A.
   - Tel: +1 302-427-4000
   - FAX: +1 302-427-4001
   - www.tainstruments.com
   EU:
   - TA Instruments, A Division of Waters NV/SA
   - ConnexIon Business Park
   - Brusselsesteenweg 500
   - B-1731 Zellik, Belgium
   - Phone: 32/2 706 00 80
   - Fax: 32/2 706 00 81
   - Email: Belgium@tainstruments.com

1.4 Emergency Telephone Number
FOR CHEMICAL EMERGENCY
24 Hours per Day, 7 Days per Week
Call CHEMTREC 800-424-9300
Outside N. America call collect
+1 703-527-3887
SDS email inquiries:
info@tainstruments.com

Date: December 16, 2015, Rev. A

2. HAZARDS IDENTIFICATION
2.1 Classification: Not classified as hazardous per GHS and OSHA. Not dangerous according to the criteria set by the European Union (EU); not listed in Table 3.1 Annex VI of regulation 1272/2008/EU, as amended. The product is not hazardous in the form in which it is placed on the market and under the normal and recommended conditions of storage and use.
2.2 GHS Label Elements: None.
2.3 Other Hazards: None. Product contains < 0.01 potassium bicarbonate solution in water. Use only as directed and in accordance with safe laboratory practices.

3. COMPOSITION/INFORMATION ON INGREDIENTS
3.1: Substances: No components need to be disclosed according to applicable regulations.

<table>
<thead>
<tr>
<th>CHEMICAL INGREDIENT NAME</th>
<th>CAS NUMBER</th>
<th>EC NUMBER</th>
<th>% by Weight</th>
<th>OSHA</th>
<th>ACGIH</th>
<th>EU IOELV</th>
</tr>
</thead>
<tbody>
<tr>
<td>No hazardous ingredients</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Notes: Product is provided three 3 ml bottles of 0.0016% potassium bicarbonate in water for use only with the nano ITC instrument to check instrument performance. This product does not contain candidate substances of very high concern at a concentration >= 0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59).

4. FIRST AID MEASURES
4.1: Description of First Aid Measures:
   - Inhalation: Remove to fresh air.
   - Skin Contact: Flush with water.
   - Eye Contact: Immediately flush with water for a minimum of 15 minutes.
   - Ingestion: Get medical attention.
4.2: Most important symptoms and effects: No important symptoms and effects.
4.3: Indication of any immediate medical attention or special treatment: No special treatment required. After following first aid measures, seek medical attention if desired.

5. FIRE-FIGHTING MEASURES
Flammable Properties: Not flammable.
5.1 Extinguishing Media: Dry chemical, carbon dioxide or appropriate foam.
5.2 Special hazards contributing to a fire: No additional information.
5.3 Advice for firefighters: No additional information.
   - Note: As in any fire, wear self-contained breathing apparatus, and full protective gear.

6. ACCIDENTAL RELEASE MEASURES
6.1 Personal precautions, protective equipment and emergency procedures: Due to small quantities involved, spills or leaks should not pose a problem. Absorb liquid with spill pillow or other absorbent. Place wastes into closed containers for proper disposal.
6.2 Environmental precautions: No additional information available.
6.3 Methods and material for containment and clean up: Absorb liquid and place wastes into closed containers for proper disposal.
6.4 Reference to other sections: NA

7. HANDLING AND STORAGE
Handle as directed and in accordance with safe laboratory practices.
7.1 Precautions for safe handling: No special precautions.
7.2 Conditions for safe storage: No special conditions for safe storage.
7.3 Specific end use: For use only in performance verification of nano ITC instruments.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1 Control parameters: Handle in accordance with safe laboratory practices.
8.2 Exposure controls:
   - Respiratory Protection: Not normally needed.
   - Eye Protection: Safety glasses with side protection.
   - Skin Protection: No special requirements. Disposable nitrile gloves are acceptable for light intermittent exposure.
   - Engineering Controls: No special requirements.
9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear liquid
Flash Point: Not applicable
Vapor Pressure: NA
Explosion Limits: Not applicable
Vapor Density (air=1): NA
pH: 7.6
Boiling Point: NA
Solubility in Water: Soluble
Specific Gravity: NA
Melting Point: NA

10. STABILITY AND REACTIVITY

10.1 Reactivity: Hazardous Polymerization
☑ Will Not Occur
☐ May Occur

10.2 Stability: Stable

10.3 Possibility of hazardous reactions: 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.

10.4 Conditions & Materials to Avoid: None.

10.5 Incompatible materials: None under normal use.

10.6 Hazardous decomposition products: None.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Not classified.
Skin corrosion/irritation: Not classified.
Serious eye damage/irritation: Not classified.
Respiratory or skin sensitization: Not classified.
Carcinogenicity: Not classified as carcinogenic by OSHA, IARC (Group 1/2), NTP Group 1/2, ACGIH, or California.
Reproductive toxicity: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
Specific target organ toxicity (STOT) (single exposure): Not classified.
STOT (repeated exposure): Not classified.
Aspiration hazard: Not classified.
Potential adverse human health effects and symptoms: 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.

12. ECOLOGICAL INFORMATION

12.1 Toxicity: This product is not classified as environmentally hazardous.
12.2 Persistence and degradability: No additional information available.
12.3 Bioaccumulative potential: No additional information available.
12.4 Mobility in soil: No additional information available.
12.5 Results of PBT and vPvB: No additional information available.
12.6 Other adverse effects: No additional information available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods: Consult state, local or national regulations for proper disposal. The U.S. Environmental Protection Agency (EPA) does not classify unused product as hazardous waste.


14.1 UN number: Not applicable.
14.2 UN proper shipping name: Not applicable.
14.3 Transport hazard class: Not applicable.
14.4 Packing group: Not applicable.
14.5 Environmental hazards: No supplementary information available.
14.6 Special precautions for user: No additional information is available.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the substance or mixture:
15.1.1 EU-regulations: No REACH Annex XVII restrictions.
15.1.2 National regulations:
U.S. TOSCA: Potassium bicarbonate: Listed.
Canada: This product has been classified according to the hazard criteria of the Controlled Product Registration (CPR) and this SDS contains all the information required by the CPR.

15.2 Chemical safety assessment: No additional information available.

16. OTHER INFORMATION

U.S. EPA National Fire Protection Association Rating
SARA 313 Chemicals CERCLA RQ 4=Severe Hazard HEALTH NA
None None 3=Serious Hazard FLAMMABILITY NA
1=Slight Hazard REACTIVITY NA
0=Minimal Hazard OTHER NA

<table>
<thead>
<tr>
<th>Notes, abbreviations and acronyms:</th>
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<tbody>
<tr>
<td>ACGIH: American Conference of Governmental Industrial Hygienists</td>
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<td>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road</td>
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<tr>
<td>CAS: Chemical Abstracts Service (division of the American Chemical Society)</td>
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<td>EC: European Commission</td>
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<tr>
<td>EU IOELV: European Union Indicative Occupational Exposure Limit Values</td>
</tr>
<tr>
<td>GHS: Globally Harmonized System of Classification and Labeling of Chemicals</td>
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<tr>
<td>IATA: International Air Transport Association</td>
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<tr>
<td>IMDG: International Maritime Code for Dangerous Goods</td>
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<tr>
<td>NA: Not Available.</td>
</tr>
<tr>
<td>OSHA: U.S. Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>US DOT: U.S. Department of Transportation</td>
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</tbody>
</table>

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The information contained herein has been compiled from data presented in various technical sources believed to be accurate. TAI/Waters makes no warranties and assumes no liability in connection with the use of this information. It is the user’s responsibility to determine the suitability of this information and to assure the adoption of necessary precautions.

901522.001: December 16, 2015