Safety Data Sheet

1. IDENTIFICATION

1.1 Product Identifier: n-Propyl alcohol, P/N 601116.901

1.2 Product Use: For laboratory use only; for use only in performance verification of nano ITC instruments. Not for drug, household or other uses.

1.3 Supplier Information:

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Address</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA Instruments Inc.</td>
<td>159 Lukens Drive New Castle, DE 19720 U.S.A.</td>
<td>Tel: +1 302-427-4000 FAX: +1 302-427-4001 <a href="http://www.tainstruments.com">www.tainstruments.com</a></td>
</tr>
</tbody>
</table>

| 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

<table>
<thead>
<tr>
<th>FOR CHEMICAL EMERGENCY</th>
<th>24 Hours per Day, 7 Days per Week</th>
<th>Call CHEMTREC 800-424-9300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside N. America call collect</td>
<td>+1 703-527-3887</td>
<td></td>
</tr>
<tr>
<td>SDS email inquiries:</td>
<td><a href="mailto:info@tainstruments.com">info@tainstruments.com</a></td>
<td></td>
</tr>
</tbody>
</table>

Date: December 9, 2015, Rev. A

MSDS #: 901521.001

2. HAZARDS IDENTIFICATION

2.1 Classification: Classification & labeling according to GHS, OSHA, and Table 3.1 Annex VI of regulation 1272/2008/EU, as amended:

Classification: Hazard Class and Category: Category 4 Flammable Liquid.

2.2 Label Elements: Pictogram: No pictogram; Signal word: Warning; Hazard statement: Combustible liquid.

2.3 Other Hazards: The small quantities supplied in our products are unlikely to cause severe or immediate health effects. Use only as directed and in accordance with safe laboratory practices.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1: Substances:

<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>n-propyl alcohol</td>
<td>71-23-8</td>
<td>200-746-9</td>
<td>2</td>
<td>200 ppm</td>
<td>100 ppm</td>
<td>NA</td>
</tr>
</tbody>
</table>

Notes: Product is provided in three 3 mL bottles of 2% n-propyl alcohol 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). Exposure Limits are 8-Hour TWA. (Time Weighted Average) unless designated C (Ceiling) or STEL (Short Term Exposure Limit).

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: Combustible liquid.

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: 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 with the nano ITC instrument to check performance of the instrument.

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. If exposure limits are exceeded, use approved organic vapor cartridge respirator.
- 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Physical State:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>149°F (65°C)</td>
</tr>
<tr>
<td>Odor:</td>
<td>Mild alcohol</td>
</tr>
<tr>
<td>Explosion Limits:</td>
<td>NA</td>
</tr>
<tr>
<td>pH:</td>
<td>NA</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>NA</td>
</tr>
<tr>
<td>Specific Gravity:</td>
<td>NA</td>
</tr>
<tr>
<td>Melting Point:</td>
<td>NA</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

10.1 Reactivity: Hazardous Polymerization
- Will Not Occur
- May Occur

10.2 Stability: Stable

10.3 Possibility of hazardous reactions: Small amounts: 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. Large amounts: Not applicable.

10.4 Conditions & Materials to Avoid: No additional information.

10.5 Incompatible materials: Small amounts: None under normal use. Large amounts: Not applicable.

10.6 Hazardous decomposition products: NA

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 (Group1/2), 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: Small amounts: 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. Large amounts: Not applicable.

12. ECOLOGICAL INFORMATION

12.1 Toxicity: Small amounts: This product is not classified as environmentally hazardous. Large amounts: Not applicable.
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 use: 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: 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

<table>
<thead>
<tr>
<th>U.S. EPA</th>
<th>National Fire Protection Association Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA 313 Chemicals</td>
<td>None</td>
</tr>
<tr>
<td>CERCLA RQ</td>
<td>None</td>
</tr>
<tr>
<td>3=Severe Hazard</td>
<td>HEALTH NA</td>
</tr>
<tr>
<td>2=Moderate Hazard</td>
<td>FLAMMABILITY NA</td>
</tr>
<tr>
<td>1=Slight Hazard</td>
<td>REACTIVITY NA</td>
</tr>
<tr>
<td>0=Minimal Hazard</td>
<td>OTHER NA</td>
</tr>
</tbody>
</table>
Notes, abbreviations and acronyms:

ACGIH: American Conference of Governmental Industrial Hygienists
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS: Chemical Abstracts Service (division of the American Chemical Society)
EC: European Commission
EU IOELV: European Union Indicative Occupational Exposure Limit Values
GHS: Globally Harmonized System of Classification and Labeling of Chemicals

IATA: International Air Transport Association
IMDG: International Maritime Code for Dangerous Goods
NA: Not Available.
OSHA: U.S. Occupational Safety and Health Administration
US DOT: U.S. Department of Transportation

For laboratory use only. Not for drug, household or other uses.

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.

901521.001: December 9, 2015