1. IDENTIFICATION

1.1 Product Identifier: Amorphous Silica P/N 941148.901

1.2 Product Use: For laboratory use only; for use only with TA instruments. Not for drug, household or other uses.

1.3 Supplier Information:

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA Instruments Inc.</td>
<td>159 Lukens Drive, New Castle, DE 19720, U.S.A. Tel: +1 302-427-4000, Fax: +1 302-427-4001, <a href="http://www.tainstruments.com">www.tainstruments.com</a></td>
</tr>
<tr>
<td>EU: TA Instruments, A Division of Waters NV/SA</td>
<td>ConnexXion Business Park, Brusselsesteenweg 500, B-1731 Zellik, Belgium Phone: 32/2 706 00 80, Fax: 32/2 706 00 81, Email: <a href="mailto:Belgium@tainstruments.com">Belgium@tainstruments.com</a></td>
</tr>
</tbody>
</table>

1.4 Emergency Telephone Number

<table>
<thead>
<tr>
<th>Country</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR CHEMICAL EMERGENCY</td>
<td>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: <a href="mailto:info@tainstruments.com">info@tainstruments.com</a></td>
</tr>
</tbody>
</table>

MSDS #: 901146.001

Date: Rev D, March 1, 2016

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. This product does not contain candidate substances of very high concern at a concentration >= 0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59).

2.2 GHS Label Elements: None required.

2.3 Other Hazards: None identified. 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>Silica gel (silicon dioxide)</td>
<td>7631-86-9</td>
<td>231-545-4</td>
<td>&gt;99</td>
<td>15 mg/m³ Total PNOR</td>
<td>10 mg/m³ Inhalable particles: PNOS</td>
<td>NA</td>
</tr>
</tbody>
</table>

Notes: Product is provided as a vial containing 25 grams of amorphous silica, not to be confused with crystalline silica, for use as a filling medium. PNOR: Particulates not otherwise regulated. PNOS: Particles Not Otherwise Specified. 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: Not flammable.

5.1 Extinguishing Media: Dry chemical, carbon dioxide or appropriate foam.

5.2 Special hazards contributing to a fire: No additional information available.

5.3 Advice for firefighters: No additional information available.

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. Use appropriate personal protective equipment.

6.2 Environmental precautions: No additional information available.

6.3 Methods and material for containment and clean up: Sweep up and place wastes into closed containers for proper disposal.

6.4 Reference to other sections: For disposal see section 13.

7. HANDLING AND STORAGE

Handle as directed and in accordance with safe laboratory practices.

7.1 Precautions for safe handling: Avoid raising dust.

7.2 Conditions for safe storage: No special conditions.

7.3 Specific end use: For laboratory use only; for use only with TA instruments. Not for drug, household or other uses.

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 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: White powder
Physical State: Solid
Odor: None
pH: NA
Specific Gravity: 2.2 @ 25 ºC

Flash Point: NA
Explosion Limits: NA
Vapor Pressure: NA
Boiling Point: 4046º F (2230ºC)
Melting Point: 3110º F (1710ºC)
Solubility in Water: Insoluble

10. STABILITY AND REACTIVITY

10.1 Reactivity: Hazardous Polymerization
Will Not Occur
May Occur

10.2 Stability: Stable.

10.3 Possibility of hazardous reactions: No data available.

10.4 Conditions and materials to avoid: Hydrogen fluoride, oxygen difluoride, chlorine trifluoride, vinyl acetate vapor.

10.5 Incompatible materials: Hydrogen fluoride, oxygen difluoride, chlorine trifluoride, vinyl acetate vapor.

10.6 Hazardous decomposition products: None.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:
High concentrations or extended exposure to dust may be irritating.
48-hour oral, rat: LD50 > 31,600 mg/kg. 1-hour inhalation, rat: LC50 > 2 mg/l.

Skin corrosion/irritation:
No data available.

Serious eye damage/irritation:
No data available.

Respiratory or skin sensitization:
No data available.

Carcinogenicity:
No Component of this product present at levels>=0.1% is classified as carcinogenic by OSHA, IARC (Group 1, 2A/2B), NTP (Group 1/2), ACGIH or California.

Reproductive toxicity:
This product does not contain any chemicals known to State of California to cause birth defects, or any other reproductive harm.

Specific target organ toxicity (STOT) (single exposure):
No data available.

STOT (repeated exposure):
No data available.

Aspiration hazard:
No data available.

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: Prolonged or repeated overexposure to dust may cause harm to respiratory system. Prolonged or repeated skin contact may cause irritation or dryness of skin.

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 data available.

12.3 Bioaccumulative potential:
No data available.

12.4 Mobility in soil:
No data available.

12.5 Results of PBT and vPvB:
No data available.

12.6 Other adverse effects:
No data 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 additional information available.

14.6 Special precautions for user:
No additional information 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:
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>CERCLA RQ</td>
</tr>
<tr>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2of 3
Notes, abbreviations and acronyms:

ACGIH: American Conference of Governmental Industrial Hygienists
DOT: U.S. Department of Transportation
CAS: Chemical Abstracts Service (division of the American Chemical Society)
EC: European Commission
EU IOELV: European Union Indicative Occupational Exposure Limit Values
REACH: European Union Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation
CLP: European Union Classification, Labeling, and Packaging Regulation

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

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.

901146.001: March 1, 2016