1 Identification

- **Product identifier**
  - **Trade name:** Set-Up Solution QP
  - **Part number:** Z700003093S-1
  - **Application of the substance / the mixture** Laboratory chemicals

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** ULTRA Scientific, Inc.
    250 Smith Street
    North Kingstown, RI 02852
    USA

- **Information department:**
  - Telephone: (401) 294-9400
  - Fax: (401) 295-2300
  - E-mail: regulatory@ultrasci.com

- **Emergency telephone number:**
  - US: (800) 424-9300
  - Outside US: (703) 527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - **GHS label elements**
    - **GHS02 Flame**
    - Flam. Liq. 2 H225 Highly flammable liquid and vapor.

  - **GHS07**
    - Eye Irrit. 2A H319 Causes serious eye irritation.

- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    - GHS02
    - GHS07

- **Signal word** Danger

- **Hazard statements**
  - Highly flammable liquid and vapor.
  - Causes serious eye irritation.

- **Precautionary statements**
  - Keep away from heat/sparks/open flames/hot surfaces. No smoking.
  - Keep container tightly closed.
  - Ground/bond container and receiving equipment.
  - Use explosion-proof electrical/ventilating/lighting/equipment.
  - Use only non-sparking tools.
  - Take precautionary measures against static discharge.
  - Wash thoroughly after handling.

(Contd. on page 2)
Trade name: Set-Up Solution QP

Wear protective gloves/protective clothing/eye protection/face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
  - NFPA ratings (scale 0 - 4)
    - Health = 2
    - Fire = 3
    - Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  - Health = 2
  - Fire = 3
  - Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

### 3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

#### Dangerous components:

<table>
<thead>
<tr>
<th>Substance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8 acetonitrile</td>
<td>43.9944%</td>
</tr>
</tbody>
</table>

### 4 First-aid measures

- Description of first aid measures
  - 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. If symptoms persist, consult a doctor.
  - After swallowing:
    - If symptoms persist consult doctor.

- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

### 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.
Trade name: Set-Up Solution QP

- For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures:
  Wear protective equipment. Keep unprotected persons away.
- 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 (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation.

6 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.

- Protective Action Criteria for Chemicals

<table>
<thead>
<tr>
<th>PAC</th>
<th>Acetonitrile</th>
<th>Ammonium Acetate</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8</td>
<td>13 ppm</td>
<td>3.8 mg/m³</td>
</tr>
<tr>
<td>631-61-8</td>
<td>50 ppm</td>
<td>42 mg/m³</td>
</tr>
<tr>
<td>75-05-8</td>
<td>150 ppm</td>
<td></td>
</tr>
<tr>
<td>631-61-8</td>
<td>250 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

7 Handling and storage

- Handling:
  No special precautions are necessary if used correctly.
- Information about protection against explosions and fires:
  Keep ignition sources away - Do not smoke.
  Protect against electrostatic charges.
- Conditions for safe storage, including any incompatibilities

- Storage:
  Requirements to be met by storerooms and receptacles: Store in a cool location.
  Information about storage in one common storage facility: Not required.
- Further information about storage conditions:
  Keep receptacle tightly sealed.
  Store in cool, dry conditions in well sealed receptacles.
- 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 item 7.
Trade name: Set-Up Solution QP

- Control parameters
  - Components with limit values that require monitoring at the workplace:
    | Component     | Limit Value PEL Long-term | Limit Value REL Long-term | Limit Value TLV Long-term |
    |---------------|----------------------------|---------------------------|---------------------------|
    | 75-05-8 acetonitrile | 70 mg/m³, 40 ppm | 34 mg/m³, 20 ppm | 34 mg/m³, 20 ppm |

- Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes.
  - Avoid contact with the eyes and skin.

- Breathing equipment: Not required.

- Protection of hands:
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

- Material of gloves
  - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material
  - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:
  - Tightly sealed goggles

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:
  - Form: Fluid
  - Color: According to product specification
  - Odor: Characteristic
  - Odor threshold: Not determined.

- pH-value: Not determined.

- Change in condition
  - Melting point/Melting range: Undetermined.
### Boiling point/Boiling range:
81°C (°F)

### Flash point:
2°C (°F)

### Flammability (solid, gaseous):
Not applicable.

### Ignition temperature:
525°C (°F)

### Decomposition temperature:
Not determined.

### Auto igniting:
Product is not selfigniting.

### Danger of explosion:
Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

### Explosion limits:
- **Lower:** 4.4 Vol %
- **Upper:** 16 Vol %

### Vapor pressure at 20°C (68 °F):
23 hPa (mm Hg)

### Density at 20°C (68 °F):
0.9059 g/cm³ (lbs/gal)

### Relative density:
Not determined.

### Vapor density:
Not determined.

### Evaporation rate:
Not determined.

### 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:
- **Water:** 56.0 %
- **VOC content:** 0.00 %
  - 0.0 g/l / 0.00 lb/gl

### Solids content:
0.0 %

### Other information
No further relevant information available.

### Stability and reactivity

- **Reactivity**
  No further relevant information available.

- **Chemical stability**
  - **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:

| LD/LC50 values that are relevant for classification: | 
|---------------------------------|------------------|
| **ATE (Acute Toxicity Estimate)** | 
| Oral LD50 | 3,000 mg/kg (rat) |
| Dermal LD50 | >4,546 mg/kg (rabbit) |
| Inhalative LC50/4 h | 8,153 mg/L (mouse) |

**75-05-8 acetonitrile**

| Oral LD50 | 1,320 mg/kg (rat) |
| Dermal LD50 | >2,000 mg/kg (rabbit) |
| Inhalative LC50/4 h | 3,587 mg/L (mouse) |

- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: Irritating effect.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
  The product shows the following dangers according to internally approved calculation methods for preparations: Irritant

- 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.
  - Behavior in environmental systems:
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes:
    Water hazard class 2 (Self-assessment): hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.
  - 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: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· Uncleaned packagings:
  · Recommendation: Disposal must be made according to official regulations.

14 Transport information

· UN-Number
  · DOT, IMDG, IATA UN1648

· UN proper shipping name
  · DOT Acetonitrile mixture
  · IMDG, IATA ACETONITRILE mixture

· Transport hazard class(es)
  · DOT
    - Class 3 Flammable liquids
    - Label 3
  · IMDG, IATA
    - Class 3 Flammable liquids
    - Label 3

· Packing group
  · DOT, IMDG, IATA II

· Environmental hazards: Not applicable.

· Special precautions for user
  · Warning: Flammable liquids
  · Danger code (Kemler): 33
  · EMS Number: F-E,S-D
  · Stowage Category B
  · Stowage Code SW2 Clear of living quarters.

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

· Transport/Additional information:
  · DOT
  · Quantity limitations On passenger aircraft/rail: 5 L
  On cargo aircraft only: 60 L
Trade name: Set-Up Solution QP

- IMDG
  - Limited quantities (LQ) 1L
  - Excepted quantities (EQ) Code: E2
    Maximum net quantity per inner packaging: 30 ml
    Maximum net quantity per outer packaging: 500 ml
- UN "Model Regulation": UN 1648 ACETONITRILE MIXTURE, 3, II

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):
    75-05-8 acetonitrile
- 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)
    75-05-8 acetonitrile CBD, D
    631-61-8 ammonium acetate D
  - TLV (Threshold Limit Value established by ACGIH)
    75-05-8 acetonitrile A4
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    None of the ingredients is listed.
- GHS label elements
  The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms
  - GHS02
  - GHS07
- Signal word Danger
· **Hazard statements**  
Highly flammable liquid and vapor.  
Causes serious eye irritation.  

· **Precautionary statements**  
Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Wash thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.  
In case of fire: Use for extinction: CO2, powder or water spray.  
Store in a well-ventilated place. Keep cool.  
Dispose of contents/container in accordance with local/regional/national/international regulations.  

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

### 16 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** 09/11/2017 / -

· **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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Flam. Liq. 2: Flammable liquids – Category 2  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A