1 Identification

- Product identifier
- Trade name: Custom Standard
- Part number: ICUS-2734
- 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
  The product is not classified according to the Globally Harmonized System (GHS).
- Label elements
  - GHS label elements Void
  - Hazard pictograms Void
  - Signal word Void
  - Hazard statements Void
  - Classification system:
    - NFPA ratings (scale 0 - 4)
      Health = 0
      Fire = 0
      Reactivity = 0
    - HMIS-ratings (scale 0 - 4)
      HEALTH Health = 0
      FIRE Fire = 0
      REACTIVITY 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.
4 First-aid measures

- **Description of first aid measures**
  - **General information:** No special measures required.
  - **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.
  - **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:** Use fire fighting measures that suit the environment.
  - **Special hazards arising from the substance or mixture:** No further relevant information available.

- **Advice for firefighters**
  - **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
  - **Environmental precautions:** No special measures required.

- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

- **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-1:</th>
<th>PAC-2:</th>
<th>PAC-3:</th>
</tr>
</thead>
<tbody>
<tr>
<td>7631-99-4 sodium nitrate, containing in the dry state more than 16.3 per cent by weight of nitrogen</td>
<td>7631-99-4 sodium nitrate, containing in the dry state more than 16.3 per cent by weight of nitrogen</td>
<td>7631-99-4 sodium nitrate, containing in the dry state more than 16.3 per cent by weight of nitrogen</td>
</tr>
<tr>
<td>16.3 g/m³</td>
<td>16.3 g/m³</td>
<td>270 g/m³</td>
</tr>
<tr>
<td>7758-02-3 potassium bromide</td>
<td>7758-02-3 potassium bromide</td>
<td>7758-02-3 potassium bromide</td>
</tr>
<tr>
<td></td>
<td>9.2 g/m³</td>
<td>100 g/m³</td>
</tr>
<tr>
<td>7681-49-4 sodium fluoride</td>
<td>7681-49-4 sodium fluoride</td>
<td>7681-49-4 sodium fluoride</td>
</tr>
<tr>
<td></td>
<td>17 g/m³</td>
<td>90 g/m³</td>
</tr>
<tr>
<td>7722-76-1 ammonium dihydrogenorthophosphate</td>
<td>7722-76-1 ammonium dihydrogenorthophosphate</td>
<td>7722-76-1 ammonium dihydrogenorthophosphate</td>
</tr>
<tr>
<td></td>
<td>17 g/m³</td>
<td>190 g/m³</td>
</tr>
<tr>
<td>7631-99-4 sodium nitrate, containing in the dry state more than 16.3 per cent by weight of nitrogen</td>
<td>7631-99-4 sodium nitrate, containing in the dry state more than 16.3 per cent by weight of nitrogen</td>
<td>7631-99-4 sodium nitrate, containing in the dry state more than 16.3 per cent by weight of nitrogen</td>
</tr>
<tr>
<td></td>
<td>270 g/m³</td>
<td>270 g/m³</td>
</tr>
<tr>
<td>7758-02-3 potassium bromide</td>
<td>7758-02-3 potassium bromide</td>
<td>7758-02-3 potassium bromide</td>
</tr>
<tr>
<td></td>
<td>610 g/m³</td>
<td>610 g/m³</td>
</tr>
</tbody>
</table>

(Contd. on page 3)
7 Handling and storage

- Handling:
- Precautions for safe handling: No special measures required.
- Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: None.
- 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.
- Control parameters
- Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed.
- 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. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- 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: Goggles recommended during refilling.

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:
  Form: Fluid
Trade name: Custom Standard

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor:</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH-value:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Change in condition:</td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range:</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>100 °C (212 °F)</td>
</tr>
<tr>
<td>Flash point:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammability (solid, gaseous):</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto igniting:</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>Danger of explosion:</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Explosion limits:</td>
<td></td>
</tr>
<tr>
<td>Lower:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor pressure at 20 °C (68 °F):</td>
<td>23 hPa (17.3 mm Hg)</td>
</tr>
<tr>
<td>Density:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Relative density:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor density:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water:</td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water):</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td></td>
</tr>
<tr>
<td>Dynamic at 20 °C (68 °F):</td>
<td>0.952 mPas</td>
</tr>
<tr>
<td>Kinematic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solvent content:</td>
<td></td>
</tr>
<tr>
<td>Water:</td>
<td>99.4 %</td>
</tr>
<tr>
<td>VOC content:</td>
<td>0.00 %</td>
</tr>
<tr>
<td>0.0 g/l / 0.00 lb/gl</td>
<td></td>
</tr>
<tr>
<td>Solids content:</td>
<td>0.4 %</td>
</tr>
<tr>
<td>Other information:</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

10 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:
- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
  The product is not subject to classification according to internally approved calculation methods for preparations:
  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.
- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    7681-49-4 sodium fluoride
  - 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: Generally not hazardous for water
- 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: Smaller quantities can be disposed of with household waste.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
- DOT, IMDG, IATA not regulated
### Trade name: Custom Standard

- **UN proper shipping name**  
  - DOT, IMDG, IATA: not regulated

- **Transport hazard class(es)**  
  - DOT, IMDG, IATA: not regulated

- **Packing group**  
  - DOT, IMDG, IATA: not regulated

- **Environmental hazards:**  
  - Not applicable.

- **Special precautions for user**  
  - Not applicable.

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

- **UN "Model Regulation":**  
  - not regulated

### 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):**  
    - None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**

  - 7447-40-7 potassium chloride
  - 7631-99-4 sodium nitrate, containing in the dry state more than 16.3 per cent by weight of nitrogen
  - 7758-02-3 potassium bromide
  - 7681-49-4 sodium fluoride
  - 7722-76-1 ammonium dihydrogenorthophosphate
  - 7732-18-5 water

- **TSCA new (21st Century Act) (Substances not 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)**
    - None of the ingredients is listed.
Trade name: Custom Standard

(Contd. of page 6)

· TLV (Threshold Limit Value established by ACGIH)

| 7681-49-4 sodium fluoride | A4 |

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- GHS label elements Void
- Hazard pictograms Void
- Signal word Void
- Hazard statements Void
- 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 12/06/2017 / -
- 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)
  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