1 Identification

- **Product identifier**
- **Trade name:** Custom Standard
- **Part number:** ICUS-3263
- **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.

(Contd. on page 2)
Trade name: Custom Standard

- Dangerous components: Void

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</td>
<td>7631-99-4 sodium nitrate, containing in the dry state</td>
<td>7631-99-4 sodium nitrate, containing in the dry state</td>
</tr>
<tr>
<td>more than 16,3 per cent by weight of nitrogen</td>
<td>more than 16,3 per cent by weight of nitrogen</td>
<td>more than 16,3 per cent by weight of nitrogen</td>
</tr>
<tr>
<td>4.1 mg/m³</td>
<td>45 mg/m³</td>
<td>270 mg/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>17 mg/m³</td>
<td>90 mg/m³</td>
<td>1,100 mg/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>9.2 mg/m³</td>
<td>100 mg/m³</td>
<td>1,100 mg/m³</td>
</tr>
</tbody>
</table>
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
    - **Color:** Colorless
### Odor
- **Odor:** Odorless
- **Odor threshold:** Not determined.

### pH-value
- **pH-value:** Not determined.

### Change in condition
- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** 100°C (°F)

### Flash point
- **Flash point:** Not applicable.

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

### Ignition temperature
- **Decomposition temperature:** Not determined.

### Auto igniting
- **Auto igniting:** Product is not self-igniting.

### Danger of explosion
- **Danger of explosion:** Product does not present an explosion hazard.

### Explosion limits
- **Lower:** Not determined.
- **Upper:** Not determined.

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

### Density at 20°C (68 °F)
- **Density at 20°C (68 °F):** 1.00215 g/cm³ (lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.

### Solubility in / Miscibility with Water
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.

### Partition coefficient (n-octanol/water)
- **Partition coefficient (n-octanol/water):** Not determined.

### Viscosity
- **Viscosity:**
  - **Dynamic at 20°C (68 °F):** 0.952 mPas
  - **Kinematic:** Not determined.

### Solvent content
- **Solvent content:**
  - **Water:** 99.8 %
  - **VOC content:** 0.00 %
  - **Solids content:** 0.0 %

### Other information
- **Other information:** No further relevant information available.

### Stability and reactivity

#### 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.
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

<table>
<thead>
<tr>
<th>Agency</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC (International Agency for Research on Cancer)</td>
<td>7681-49-4 sodium fluoride</td>
<td>3</td>
</tr>
<tr>
<td>NTP (National Toxicology Program)</td>
<td></td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>OSHA-Ca (Occupational Safety &amp; Health Administration)</td>
<td></td>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Transport information</th>
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<tbody>
<tr>
<td>· UN-Number</td>
</tr>
<tr>
<td>· DOT, IMDG, IATA</td>
</tr>
<tr>
<td>· UN proper shipping name</td>
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<tr>
<td>· DOT, IMDG, IATA</td>
</tr>
<tr>
<td>· Transport hazard class(es)</td>
</tr>
<tr>
<td>· DOT, IMDG, IATA</td>
</tr>
<tr>
<td>· Class</td>
</tr>
<tr>
<td>· Packing group</td>
</tr>
<tr>
<td>· DOT, IMDG, IATA</td>
</tr>
<tr>
<td>· Environmental hazards:</td>
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<tr>
<td></td>
</tr>
<tr>
<td>· Special precautions for user</td>
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<td></td>
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<tr>
<td>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
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<tr>
<td></td>
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<tr>
<td>· UN &quot;Model Regulation&quot;:</td>
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</table>

15 Regulatory information

<table>
<thead>
<tr>
<th>Regulatory information</th>
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</thead>
<tbody>
<tr>
<td>· Safety, health and environmental regulations/legislation specific for the substance or mixture</td>
</tr>
<tr>
<td>· Sara</td>
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<tr>
<td>· Section 355 (extremely hazardous substances):</td>
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<td></td>
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<tr>
<td>· Section 313 (Specific toxic chemical listings):</td>
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<td>· TSCA (Toxic Substances Control Act):</td>
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<tr>
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<tr>
<td>· Proposition 65</td>
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<tr>
<td>· Chemicals known to cause cancer:</td>
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<tr>
<td></td>
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<tr>
<td>· Chemicals known to cause reproductive toxicity for females:</td>
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<tr>
<td></td>
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<tr>
<td>· Chemicals known to cause reproductive toxicity for males:</td>
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<tr>
<td></td>
</tr>
<tr>
<td>· Chemicals known to cause developmental toxicity:</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>· Carcinogenic categories</td>
</tr>
<tr>
<td>· EPA (Environmental Protection Agency)</td>
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<tr>
<td></td>
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<tr>
<td>· TLV (Threshold Limit Value established by ACGIH)</td>
</tr>
<tr>
<td>7681-49-4 sodium fluoride</td>
</tr>
</tbody>
</table>

(Contd. on page 7)
Trade name: Custom Standard

- 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 08/09/2017 / -

- 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