1 Identification

- Product identifier
- Trade name: Custom Standard
- Part number: ICUS-7418
- 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**

  **PAC-1:**
  - 7778-80-5 Potassium Sulfate 20 mg/m³
  - 7631-99-4 sodium nitrate, containing in the dry state more than 16,3 per cent by weight of nitrogen 4.1 mg/m³
  - 7632-00-0 sodium nitrite 6.4 mg/m³
  - 7647-15-6 sodium bromide 12 mg/m³
  - 7681-49-4 sodium fluoride 17 mg/m³

  **PAC-2:**
  - 7778-80-5 Potassium Sulfate 220 mg/m³
  - 7631-99-4 sodium nitrate, containing in the dry state more than 16,3 per cent by weight of nitrogen 45 mg/m³
  - 7632-00-0 sodium nitrite 71 mg/m³
  - 7647-15-6 sodium bromide 130 mg/m³
  - 7681-49-4 sodium fluoride 90 mg/m³

(Contd. on page 3)
Trade name: Custom Standard

7 Handling and storage

- **Handling:**
  - No special measures required.
- **Information about protection against explosions and fires:**
  - No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
  - No special requirements.
  - Not required.
  - 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:
    - Not determined.
  - Change in condition
    - Melting point/Melting range:
      - 0 °C (32 °F)
    - Boiling point/Boiling range:
      - 100 °C (212 °F)
  - Flash point:
    - Not applicable.
  - Flammability (solid, gaseous):
    - Not applicable.
  - Decomposition temperature:
    - Not determined.
  - Auto igniting:
    - Product is not selfigniting.
  - 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):
    - 23 hPa (17.3 mm Hg)
  - Density at 20 °C (68 °F):
    - 1.00009 g/cm³ (8.34575 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 at 20 °C (68 °F):
      - 0.952 mPas
    - Kinematic:
      - Not determined.
  - Solvent content:
    - Water:
      - 100.0 %
    - VOC content:
      - 0.00 %
      - 0.0 g/l / 0.00 lb/gl
  - Solids content:
    - 0.0 %
  - Other information
    - No further relevant information available.

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.
Trade name: Custom Standard

- 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 3
  - 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

<table>
<thead>
<tr>
<th>Item</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN-Number</td>
<td>not regulated</td>
</tr>
<tr>
<td>DOT, IMDG, IATA</td>
<td></td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>not regulated</td>
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<tr>
<td>DOT, IMDG, IATA</td>
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<tr>
<td>Transport hazard class(es)</td>
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<tr>
<td>DOT, IMDG, IATA</td>
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<tr>
<td>Class</td>
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<tr>
<td>Packing group</td>
<td>not regulated</td>
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<tr>
<td>DOT, IMDG, IATA</td>
<td></td>
</tr>
<tr>
<td>Environmental hazards:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable</td>
</tr>
<tr>
<td>UN &quot;Model Regulation&quot;:</td>
<td>not regulated</td>
</tr>
</tbody>
</table>

## 15 Regulatory information

<table>
<thead>
<tr>
<th>Item</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety, health and environmental regulations/legislation specific for the substance or mixture</td>
<td></td>
</tr>
<tr>
<td>Sara</td>
<td></td>
</tr>
<tr>
<td>Section 355 (extremely hazardous substances):</td>
<td></td>
</tr>
<tr>
<td>None of the ingredients is listed.</td>
<td></td>
</tr>
<tr>
<td>Section 313 (Specific toxic chemical listings):</td>
<td></td>
</tr>
<tr>
<td>7632-00-0 sodium nitrite</td>
<td></td>
</tr>
<tr>
<td>TSCA (Toxic Substances Control Act):</td>
<td></td>
</tr>
<tr>
<td>7778-80-5 Potassium Sulfate</td>
<td></td>
</tr>
<tr>
<td>7647-14-5 sodium chloride</td>
<td></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></td>
</tr>
<tr>
<td>7632-00-0 sodium nitrite</td>
<td></td>
</tr>
<tr>
<td>7647-15-6 sodium bromide</td>
<td></td>
</tr>
<tr>
<td>7681-49-4 sodium fluoride</td>
<td></td>
</tr>
<tr>
<td>7732-18-5 water</td>
<td></td>
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<tr>
<td>TSCA new (21st Century Act) (Substances not listed)</td>
<td></td>
</tr>
<tr>
<td>Proposition 65</td>
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<tr>
<td>Chemicals known to cause cancer:</td>
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<tr>
<td>None of the ingredients is listed.</td>
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<tr>
<td>Chemicals known to cause reproductive toxicity for females:</td>
<td></td>
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<tr>
<td>None of the ingredients is listed.</td>
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<tr>
<td>Chemicals known to cause reproductive toxicity for males:</td>
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<tr>
<td>None of the ingredients is listed.</td>
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</tr>
<tr>
<td>Chemicals known to cause developmental toxicity:</td>
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<tr>
<td>None of the ingredients is listed.</td>
<td></td>
</tr>
</tbody>
</table>
### Carcinogenic categories

- **EPA (Environmental Protection Agency)**
  
  None of the ingredients is listed.

- **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** 11/27/2017 / -

- **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