1 Identification

- **Product identifier**
- **Trade name:** Custom Standard
- **Part number:** ICUS-5415
- **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: 0
      FIRE: 0
      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.
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>7778-80-5 Potassium Sulfate</td>
<td>7778-80-5 Potassium Sulfate</td>
<td>7778-80-5 Potassium Sulfate</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></td>
</tr>
<tr>
<td>7722-76-1 ammonium dihydrogenorthophosphate</td>
<td>7722-76-1 ammonium dihydrogenorthophosphate</td>
<td></td>
</tr>
<tr>
<td>7758-02-3 potassium bromide</td>
<td>7758-02-3 potassium bromide</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7778-80-5 Potassium Sulfate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.1 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9.2 mg/m³</td>
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<tr>
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</tr>
</tbody>
</table>
Trade name: Custom Standard

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Substance Description</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>7631-99-4</td>
<td>Sodium nitrate, containing in the dry state more than 16,3 per cent by weight of nitrogen</td>
<td>270 mg/m³</td>
</tr>
<tr>
<td>7722-76-1</td>
<td>Ammonium dihydrogenorthophosphate</td>
<td>1,100 mg/m³</td>
</tr>
<tr>
<td>7758-02-3</td>
<td>Potassium bromide</td>
<td>610 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

- **Appearance:**
  - **Form:** Fluid
  - **Color:** Colorless
  - **Odor:** Odorless
  - **Odor threshold:** Not determined.

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

- **Change in condition**
  - **Melting point/Melting range:** Undetermined.
  - **Boiling point/Boiling range:** 100 °C (212 °F)

- **Flash point:** Not applicable.

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

- **Ignition temperature:**
  - **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 mm Hg)

- **Density at 20 °C (68 °F):** 1.00015 g/cm³ (8.346 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:**
  - **Organic solvents:** 0.0 %
  - **Water:** 100.0 %
  - **VOC content:** 0.0 g/l / 0.00 lb/gl

- **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.
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)
    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: 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

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

- TLV (Threshold Limit Value established by ACGIH)
  - None of the ingredients is listed.
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 06/26/2017 / -
· 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