1 Identification

- Product identifier
  - Trade name: UX II SEARCH-BAC
  - Article number: No other identifiers
  - CAS Number: 107-21-1
- Recommended use and restriction on use
  - Recommended use: Diagnostic testing
  - Restrictions on use: No relevant information available.
- Details of the supplier of the Safety Data Sheet
  - Manufacturer/Supplier: SYSMEX AMERICA, Inc
    577 Aptakisic Road
    Lincolnshire, IL 60069 USA
    Phone: 847-996-4500
    1-800-3SYSMEX (1-800-379-7639)
  - Emergency telephone number: ChemTel Inc.
    (800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

- Classification of the substance or mixture
  - GHS08 Health hazard
    STOT RE 2  H373  May cause damage to organs through prolonged or repeated exposure.
  - GHS07
    Acute Tox. 4  H302  Harmful if swallowed.
- Additional information:
  There are no other hazards not otherwise classified that have been identified.
  0 % of the mixture consists of component(s) of unknown toxicity.

- Label elements
  - GHS label elements
    The substance is classified and labeled according to the Globally Harmonized System (GHS).

(Cont'd. on page 2)
Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Trade name: UX II SEARCH-BAC

- Hazard pictograms:
  ![GHS07 GHS08](image)
- Signal word: Warning
- Hazard-determining components of labeling:
ethanediol
- Hazard statements:
  H302 Harmful if swallowed.
  H373 May cause damage to organs through prolonged or repeated exposure.
- Precautionary statements:
  P260 Do not breathe mist/vapors/spray.
  P264 Wash thoroughly after handling.
  P270 Do not eat, drink or smoke when using this product.
  P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
  P330 Rinse mouth.
  P314 Get medical advice/attention if you feel unwell.
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- Other hazards
- Results of PBT and vPvB assessment:
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients
- Chemical characterization: Substances
  - CAS No. Description
    107-21-1 ethanediol

4 First-aid measures
- Description of first aid measures
- General information:
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
  Take affected persons out into the fresh air.
Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Trade name: UX II SEARCH-BAC

5 Fire-fighting measures

- Extinguishing media
  - Suitable extinguishing agents:
    - CO2, extinguishing powder or water spray. Fight larger fire with alcohol resistant foam.
  - For safety reasons unsuitable extinguishing agents: None.
  - Special hazards arising from the substance or mixture
    - Formation of toxic gases is possible during heating or in case of fire.
  - Advice for firefighters
  - Protective equipment:
    - Wear self-contained respiratory protective device.
    - Wear fully protective suit.

(Cont'd. of page 2)

- After inhalation:
  - Supply fresh air; consult doctor in case of complaints.
  - Provide oxygen treatment if affected person has difficulty breathing.

- After skin contact:
  - Immediately remove any clothing soiled by the product.
  - Immediately wash with water and soap and rinse thoroughly.
  - If skin irritation is experienced, consult a doctor.

- After eye contact:
  - Remove contact lenses if worn.
  - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- After swallowing:
  - Rinse out mouth and then drink plenty of water.
  - Do not induce vomiting; immediately call for medical help.

- Information for doctor

  - Most important symptoms and effects, both acute and delayed:
    - Headache
    - Cramp
    - Dizziness
    - Coughing
    - Acidosis
    - Nausea in case of ingestion.
    - Gastric or intestinal disorders when ingested.
    - Disorientation

  - Danger:
    - Harmful if swallowed.
    - May cause damage to organs through prolonged or repeated exposure.

  - Indication of any immediate medical attention and special treatment needed:
    - Medical supervision for at least 48 hours.
6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**
  Ensure adequate ventilation.
  Wear protective equipment. Keep unprotected persons away.
  For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.
- **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).
  Dispose contaminated material as waste according to item 13.
  Send for recovery or disposal in suitable receptacles.
- **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.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
  Prevent formation of aerosols.
  Avoid splashes or spray in enclosed areas.
  Use only in well ventilated areas.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
  Avoid storage near extreme heat, ignition sources or open flame.
- **Information about storage in one common storage facility:**
  Store away from foodstuffs.
  Do not store together with oxidizing and acidic materials.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s):** No 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:

<table>
<thead>
<tr>
<th>Component</th>
<th>Short-term value</th>
<th>Long-term value</th>
<th>Ceiling limit value</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-21-1 ethanediol</td>
<td>NIC-127* mg/m³</td>
<td>NIC-10** NIC-63.5* mg/m³, NIC-25* ppm</td>
<td>(100) mg/m³</td>
</tr>
<tr>
<td></td>
<td>(H); *inh. fraction + vapor,P:**inh. fraction, H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EL (Canada)</td>
<td>Short-term value: 20** mg/m³</td>
<td>Long-term value: 10** mg/m³</td>
<td>Ceiling limit value: 100* mg/m³, 50*** ppm</td>
</tr>
<tr>
<td></td>
<td>*Aerosol; **Particulate; ***Vapour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EV (Canada)</td>
<td>Ceiling limit value: 100 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LMPE (Mexico)</td>
<td>Ceiling limit value: 100* mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A4, *solo aerosol</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Additional information: No relevant information available.
- Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures:
    The usual precautionary measures for handling chemicals should be followed.
    Keep away from foodstuffs, beverages and feed.
    Wash hands before breaks and at the end of work.
    Immediately remove all soiled and contaminated clothing.
    Do not inhale gases / fumes / aerosols.
    Avoid contact with the eyes and skin.
  - Engineering controls: No relevant information available.
  - Breathing equipment:
    Not required under normal conditions of use.
    Use suitable respiratory protective device when high concentrations are present.
    Use suitable respiratory protective device when aerosol or mist is formed.
    For spills, respiratory protection may be advisable.
  - Protection of hands:
    Wear protective gloves to handle contents of damaged or leaking units.
    The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

(Cont'd. on page 6)
### Eye protection:
- Safety glasses

### Body protection:
- Protective work clothing

### Limitation and supervision of exposure into the environment
No relevant information available.

### Risk management measures
See Section 7 for additional information.
No relevant information available.

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

### General information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Form:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color:</td>
<td>Dark blue</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>-12 °C (10 °F)</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>198 °C (388 °F)</td>
</tr>
<tr>
<td>Flash point:</td>
<td>210 °C (410 °F)</td>
</tr>
<tr>
<td>Flammability (solid, gaseous):</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Auto-ignition temperature:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto igniting:</td>
<td>Not determined.</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:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Density at 20 °C (68 °F):</td>
<td>1.11 g/cm³ (9.263 lbs/gal)</td>
</tr>
<tr>
<td>Relative density:</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

(Cont'd. on page 7)
Trade name: UX II SEARCH-BAC

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:

- LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>107-21-1 ethanediol</th>
<th>Oral LD50</th>
<th>5840 mg/kg (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dermal LD50</td>
<td>9530 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

- Primary irritant effect:
  - on the skin:
    Slight irritant effect on skin and mucous membranes.
    Based on available data, the classification criteria are not met.

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**Safety Data Sheet**

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 09/03/2015

Reviewed on 09/03/2015

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**Trade name: UX II SEARCH-BAC**

1. **on the eye:**
   - Slight irritant effect on eyes.
   - Based on available data, the classification criteria are not met.
2. **Sensitization:** No sensitizing effects known.
3. **Additional toxicological information:** Toxic and/or corrosive effects may be delayed up to 24 hours.

**Carcinogenic categories**

<table>
<thead>
<tr>
<th>NTP (National Toxicology Program):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance is not listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OSHA-Ca (Occupational Safety &amp; Health Administration):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance is not listed.</td>
</tr>
</tbody>
</table>

**Probable route(s) of exposure:**

- Ingestion.
- Inhalation.
- Eye contact.
- Skin contact.

**Acute effects (acute toxicity, irritation and corrosivity):**

- Harmful if swallowed.
- Vapors have narcotic effect.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**

<table>
<thead>
<tr>
<th>Germ cell mutagenicity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Carcinogenicity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reproductive toxicity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STOT-single exposure:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STOT-repeated exposure:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aspiration hazard:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
</tbody>
</table>

---

**12 Ecological information**

- **Toxicity**
  - Aquatic toxicity: No relevant information available.
  - Persistence and degradability: No relevant information available.

- **Behavior in environmental systems**
  - Bioaccumulative potential: No relevant information available.
  - Mobility in soil: No relevant information available.

- **Additional ecological information**
  - General notes:
    - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
  - Uncleaned packagings
  - Recommendation: Disposal in accordance with official regulations.
  - Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- UN-Number
- DOT, ADR, IMDG, IATA Not Regulated.
- UN proper shipping name
- DOT, ADR, IMDG, IATA Not Regulated.
- Transport hazard class(es)
- DOT, ADR, ADN, IMDG, IATA Not Regulated.
  - Class
  - Packing group
  - DOT, ADR, IMDG, IATA Not Regulated.
  - Environmental hazards
  - Marine pollutant: No
  - 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.

(Cont'd. on page 10)
15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - United States (USA)
  - SARA
    - Section 302 (extremely hazardous substances):
      Substance is not listed.
    - Section 304 (emergency release notification):
      Substance is not listed.
    - Sections 311/312 (hazardous chemical threshold planning quantity in pounds):
      Substance is not listed.
    - Section 355 (extremely hazardous substances):
      Substance is not listed.
    - Section 313 (Specific toxic chemical listings):
      Substance is listed.
  - TSCA (Toxic Substances Control Act)
    Substance is listed.
  - Proposition 65 (California)
    - Chemicals known to cause cancer:
      Substance is not listed.
    - Chemicals known to cause reproductive toxicity for females:
      Substance is not listed.
    - Chemicals known to cause reproductive toxicity for males:
      Substance is not listed.
    - Chemicals known to cause developmental toxicity:
      107-21-1 ethanediol
  - Carcinogenic categories
    - EPA (Environmental Protection Agency):
      Substance is not listed.
    - IARC (International Agency for Research on Cancer):
      Substance is not listed.
    - TLV (Threshold Limit Value established by ACGIH):
      107-21-1 ethanediol A4
Trade name: UX II SEARCH-BAC

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**: 09/03/2015 / -

- **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
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - DNEL: Derived No-Effect Level (REACH)
  - PNEC: Predicted No-Effect Concentration (REACH)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - SVHC: Substances of Very High Concern
  - vPvB: very Persistent and very Bioaccumulative
  - Acute Tox. 4: Acute toxicity, Hazard Category 4
  - STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
Trade name: UX II SEARCH-BAC

· Sources
  Website, European Chemicals Agency (http://echa.europa.eu/)
  Website, US EPA Substance Registry Services (http://ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)
  Website, Chemical Abstracts Registry, American Chemical Society (https://www.cas.org)
  Safety Data Sheets, Individual Manufacturers
  SDS Prepared by:
    ChemTel Inc.
    1305 North Florida Avenue
    Tampa, Florida USA 33602-2902
    Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
    Website: www.chemtelinc.com