1 Identification

- Product identifier
  - Trade name: Liquichek™ Urine Chemistry Control
  - Catalog or product number: 397, 398, 395X, 195, 196, 198X
  - Relevant identified uses of the substance or mixture and uses advised against
  - Sector of Use: SU20  Health services
  - Application of the substance / the mixture: In-vitro laboratory reagent or component

- Details of the supplier of the safety data sheet
  - Manufacturer/Supplier: Bio-Rad Laboratories, Diagnostic Group
  9500 Jeronimo Road
  Irvine, California 92618-2017  1(949) 598-1200
  - Information department: Technical services, customer support
  - Emergency telephone number: 1(800) 424-9300  Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION, or ACCIDENT.

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
  - Emergency overview:
    - Routes of exposure:
      Ingestion
      Inhalation
      Skin
  - Classification system
    - NFPA ratings (scale 0-4)
      Health = 0
      Fire = 0
      Reactivity = 0
  - Special Hazards
    - Contains human sourced and/or potentially infectious components.
    - Contains components derived from human urine.
  - 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 non-hazardous additions.
Trade name: Liquichek™ Urine Chemistry Control

- Listing of dangerous and non-hazardous components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Urine</td>
<td>50-100%</td>
</tr>
<tr>
<td>urea</td>
<td>1.0-2.5%</td>
</tr>
<tr>
<td>2-morpholinoethanesulphonic acid</td>
<td>1.0-2.5%</td>
</tr>
<tr>
<td>ammonium chloride</td>
<td>.001-.01%</td>
</tr>
</tbody>
</table>

- Additional information
  Contains human sourced and/or potentially infectious components.
  Contains added constituents of animal origin.
  Contains components derived from human urine.

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.
- After inhalation
  Supply fresh air; consult doctor in case of complaints.
- After skin contact
  Immediately wash with water and soap and rinse thoroughly.
- After eye contact
  Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing
  Rinse mouth with water. Seek medical attention and appropriate follow-up.
- Information for doctor
  Most important symptoms and effects, both acute and delayed
  Skin irritation
  Eye irritation

4 Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Suitable extinguishing agents
- 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
  Handle as potentially infectious.
- Environmental precautions:
  Keep contaminated washing water and dispose of appropriately.
  Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:
  Absorb liquid components with liquid-binding material.
  Pick up mechanically.

(Contd. on page 3)
Clean the affected area carefully; suitable cleaners are:

- Disinfectant

**Reference to other sections** See Section 13 for disposal information.

### 7 Handling and storage

- **Handling**
  - **Precautions for safe handling** No special precautions are necessary if used correctly.
  - **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:** According to product specification
    - **Information about storage in one common storage facility:** Not required.
    - **Further information about storage conditions:** Refer to package insert for additional information regarding storage conditions.

- **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:**

    | Component | WEEL (United States) | REL (United States) | TLV (United States) |
    |-----------|-----------------------|----------------------|----------------------|
    | 57-13-6 urea | Long-term value: 10 mg/m³ | Short-term value: C 0.3** mg/m³, C 0.1* ppm *as HN₃; **as NaN₃; Skin vapor | Short-term value: C 0.29** mg/m³, C 0.11* ppm *as HN₃ vapor **as NaN₃ |
    | 26628-22-8 sodium azide | | | |
    | 12125-02-9 ammonium chloride | Short-term value: 20 mg/m³ | Short-term value: 20 mg/m³ | Short-term value: 20 mg/m³ |
    | | Long-term value: 10 mg/m³ | Long-term value: 10 mg/m³ | Long-term value: 10 mg/m³ |

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

  - **Personal protective equipment**

- **General protective and hygienic measures**

  - Follow the usual biosafety practices for handling potentially infectious materials.
  - The usual precautionary measures for handling chemicals should be followed.

- **Breathing equipment:** Not required.

- **Protection of hands:** Protective gloves.

(Contd. on page 4)
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.

Synthetic gloves

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: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:
Form: Liquid
Color: Light yellow
Odor: Light

pH-value at 20 °C: 6.0-6.5

Change in condition
Melting point/Melting range: undetermined
Boiling point/Boiling range: undetermined

Flash point: Not applicable

Danger of explosion: Product does not present an explosion hazard.

Density: Not determined

Solubility in / Miscibility with
Water: Fully miscible

Solvent content:
Organic solvents: 0.0 %

Solids content: 5.5 %

Other information: No further relevant information available.

10 Stability and reactivity

Reactivity

Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions
This product contains sodium azide. Sodium azide can react with copper, brass, lead, and solder in piping systems to form explosive compounds of lead azide and copper azide.

Conditions to avoid: No further relevant information available.

Incompatible materials: No further relevant information available.
Trade name: Liquichek™ Urine Chemistry Control

- Hazardous decomposition products: No dangerous decomposition products known

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
    - Primary irritant effect:
      - on the skin: Irritant to skin and mucous membranes.
      - on the eye: Irritant effect.
      - Sensitization: No sensitizing effects known.
  - Additional toxicological information:
    The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version. 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:
    Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
  - 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
  Dispose of waste in accordance to applicable national, regional, or local regulations.
  Flush pipes with water frequently if discarding solutions containing sodium azide into metal piping systems.

(Contd. on page 6)
14 Transport information

- UN-Number
  - DOT, ADR, ADN, IMDG, IATA: Void

- UN proper shipping name
  - DOT, ADR, ADN, IMDG, IATA: Void

- Transport hazard class(es)
  - ADR, ADN, IMDG, IATA
  - Class: Void

- Packing group
  - DOT, ADR, IMDG, IATA: Void

- 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": -

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)
    - Section 302/304 (40CFR355.30 / 40CFR355.40):
      - 26628-22-8 sodium azide

  - Section 313 (40CFR372.65):
    - 26628-22-8 sodium azide

  - TSCA (Toxic Substances Control Act):
    - 57-13-6 urea
    - 4432-31-9 2-morpholinoethanesulphonic acid
    - 7647-14-5 sodium chloride
    - 7447-40-7 potassium chloride
    - 50-99-7 glucose
    - 7778-77-0 potassium dihydrogenphosphate
    - 60-27-5 Creatinine
    - 9048-46-8 Bovine Serum Albumin
    - 26628-22-8 sodium azide
Trade name: Liquichek™ Urine Chemistry Control

<table>
<thead>
<tr>
<th>Proprietary Reagent KM</th>
</tr>
</thead>
<tbody>
<tr>
<td>69-93-2 uric acid</td>
</tr>
<tr>
<td>70024-90-7 Human Serum Albumin (HSA)</td>
</tr>
<tr>
<td>26172-55-4 5-chloro-2-methyl-2H-isothiazol-3-one</td>
</tr>
<tr>
<td>2682-20-4 2-methyl-2H-isothiazol-3-one</td>
</tr>
<tr>
<td>9000-90-2 Amylase, alpha-</td>
</tr>
</tbody>
</table>

- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    None of the ingredients is listed.
  - **TLV (Threshold Limit Value established by ACGIH)**
    26628-22-8 sodium azide
    \(\text{A4}\)
  - **MAK (German Maximum Workplace Concentration)**
    None of the ingredients is listed.
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    None of the ingredients is listed.

- **National regulations**
  - **Water hazard class**: Water hazard class 1 (Self-assessment): slightly hazardous for water.
  - **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.

- **Department issuing SDS**: Environmental Health and Safety.
- **Contact**:
  Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000
  Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

- **Date of preparation / last revision** 05/26/2015 /

- **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
  - 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)

- *Data compared to the previous version altered.*