1 Identification

· Product identifier
  · Trade name: Quicklyser-II
  · Article number: No other identifiers

· 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.
  +1 (800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

· Classification of the substance or mixture
  Acute Tox. 4  H302  Harmful if swallowed.
  Acute Tox. 3  H311  Toxic in contact with skin.
  Skin Irrit. 2  H315  Causes skin irritation.
  Eye Dam. 1  H318  Causes serious eye damage.

· Label elements
  · GHS label elements
    The product is classified and labeled according to the Globally Harmonized System (GHS).
  · Hazard pictograms:

  GHS05 GHS06

· Signal word: Danger

· Hazard-determining components of labeling:
  Tetradecyltrimethylammonium bromide

(Cont'd. on page 2)
Trade name: Quicklyser-II

Hazard statements:
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H318 Causes serious eye damage.

Precautionary statements:
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection.
P270 Do not eat, drink or smoke when using this product.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P302+P352 IF ON SKIN: Wash with plenty of water.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330 Rinse mouth.
P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards
There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Identity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetradecyltrimethylammonium bromide</td>
<td>1119-97-7</td>
<td>5-10%</td>
</tr>
<tr>
<td>Potassium cyanide</td>
<td>151-50-8</td>
<td>&lt;1.0%</td>
</tr>
</tbody>
</table>

Additional information:
For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
Trade name: Quicklyser-II

For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

- Description of first aid measures
  - General information:
    Immediately remove any clothing soiled by the product.
    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.
  - After inhalation:
    Supply fresh air; consult doctor in case of complaints.
    Provide oxygen treatment if affected person has difficulty breathing.
    In case of irregular breathing or respiratory arrest provide artificial respiration.
  - After skin contact:
    Immediately remove any clothing soiled by the product.
    Immediately rinse with water.
    If skin irritation continues, consult a doctor.
    Launder contaminated clothing before reuse.
    Seek immediate medical help for blistering or open wounds.
  - After eye contact:
    Protect unharmed eye.
    Remove contact lenses if worn.
    Rinse opened eye for several minutes under running water. Then consult a doctor.
  - After swallowing:
    Rinse out mouth and then drink plenty of water.
    Do not induce vomiting; immediately call for medical help.

Most important symptoms and effects, both acute and delayed:
- Headache
- Dizziness
- Coughing
- Cramp
- Gastric or intestinal disorders when ingested.
- Irritant to skin and mucous membranes.
- Nausea in case of ingestion.

- Danger:
  - Danger of convulsion.
  - Danger of disturbed cardiac rhythm.
  - Danger of gastric perforation.
  - Harmful if swallowed.
Trade name: Quicklyser-II

Toxic in contact with skin.  
Causes serious eye damage.  
May cause damage to organs.  

**Indication of any immediate medical attention and special treatment needed:**  
Medical supervision for at least 48 hours.  
If necessary oxygen respiration treatment.  

---

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
  CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
- **For safety reasons unsuitable extinguishing agents:** None.  
- **Special hazards arising from the substance or mixture**  
  During heating or in case of fire poisonous gases are produced.  
- **Advice for firefighters**  
  **Protective equipment:**  
  Wear self-contained respiratory protective device.  
  Wear fully protective suit.  
- **Additional information:** Cool endangered receptacles with water spray.

---

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**  
  Use respiratory protective device against the effects of fumes/dust/aerosol.  
  Wear protective equipment. Keep unprotected persons away.  
  Ensure adequate ventilation.  
- **Environmental precautions:**  
  Do not allow to enter sewers/surface or ground water.  
  Inform respective authorities in case of seepage into water course or sewage system.  
- **Methods and material for containment and cleaning up:**  
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
  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.
Trade name: Quicklyser-II

See Section 13 for disposal information.

7 Handling and storage

- Handling
  - Precautions for safe handling:
    Prevent formation of aerosols.
    Use only in well ventilated areas.
    Avoid splashes or spray in enclosed areas.
  - Information about protection against explosions and fires:
    Keep respiratory protective device available.

- Conditions for safe storage, including any incompatibilities
  - Storage
    - Requirements to be met by storerooms and receptacles:
      Provide ventilation for 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.
  - Keep containers tightly sealed.

- Specific end use(s):
  - No relevant information available.

8 Exposure controls/personal protection

- Control parameters
  - Components with limit values that require monitoring at the workplace:
    151-50-8 potassium cyanide
    - PEL (USA) Long-term value: 5 mg/m³ as CN; Skin
    - REL (USA) Ceiling limit value: 5* mg/m³, 4.7* ppm as CN; *10-min
    - TLV (USA) Ceiling limit value: 5 mg/m³, 4.7 ppm as CN; Skin
Trade name: Quicklyser-II

- **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.
    Immediately remove all soiled and contaminated clothing.
    Do not inhale gases / fumes / aerosols.
    Avoid contact with the eyes and skin.
    Wash hands before breaks and at the end of work.
    Store protective clothing separately.
  - **Engineering controls:** No relevant information available.
  - **Breathing equipment:**
    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:**
    Protective gloves
    The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - **Eye protection:**
    Safety glasses
  - **Body protection:**
    Protective work clothing
    Apron

(Cont’d. of page 5)
## 9 Physical and chemical properties

### Information on basic physical and chemical properties

- **Appearance:**
  - Form: Liquid
  - Color: Colorless
  - Odor: Slight
  - Odor threshold: Not determined.

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

- **Melting point/Melting range:** Not determined.

- **Boiling point/Boiling range:** 100 °C (212 °F)

- **Flash point:** Not applicable.

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

- **Auto-ignition temperature:** Not determined.

- **Decomposition temperature:** Not determined.

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

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

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

- **Vapor pressure:** Not determined.

- **Density:** Not determined.

- **Relative density:** Not determined.

- **Vapor density:** Not determined.

- **Evaporation rate:** Not determined.

- **Solubility in / Miscibility with Water:** Soluble.
**Trade name: Quicklyser-II**

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<tr>
<th><strong>Partition coefficient (n-octanol/water):</strong></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Viscosity</strong></td>
<td></td>
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<tr>
<td>Dynamic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic:</td>
<td>Not determined.</td>
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<tr>
<td><strong>Other information</strong></td>
<td>No relevant information available.</td>
</tr>
</tbody>
</table>

**10 Stability and reactivity**

- **Reactivity:** No relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**
  No decomposition if used and stored according to specifications.
  To avoid thermal decomposition, do not overheat.
- **Possibility of hazardous reactions:**
  Toxic fumes may be released if heated above the decomposition point.
  Reacts with strong acids and oxidizing agents.
- **Conditions to avoid:** Excessive heat.
- **Incompatible materials:** Oxidizers
- **Hazardous decomposition products:**
  - Carbon monoxide and carbon dioxide
  - Hydrogen bromide
  - Hydrogen cyanide (prussic acid)
  - Nitrogen oxides (NOx)

**11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**
  - **LD/LC50 values that are relevant for classification:**
    - **1119-97-7 Tetradecyltrimethylammonium bromide**
      - Oral LD50: 390 mg/kg (rat)
    - **151-50-8 potassium cyanide**
      - Oral LD50: 5.09 mg/kg (rat, female)
      - Dermal LD50: 7.35 mg/kg (rabbit)
Trade name: Quicklyser-II

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<tr>
<th>Inhalative LC50/4h 103 mg/m3 (monkey)</th>
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<tbody>
<tr>
<td><strong>Primary irritant effect:</strong></td>
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<tr>
<td>On the skin: Irritant to skin and mucous membranes.</td>
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<tr>
<td>On the eye: Strong irritant with the danger of severe eye injury.</td>
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<tr>
<td>Sensitization: No sensitizing effects known.</td>
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<tr>
<td>Subacute to chronic toxicity: May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
</tbody>
</table>

**Carcinogenic categories**

- **IARC (International Agency for Research on Cancer):**
  None of the ingredients are listed.
- **NTP (National Toxicology Program):**
  None of the ingredients are listed.
- **OSHA-Ca (Occupational Safety & Health Administration):**
  None of the ingredients are listed.

**Probable route(s) of exposure:**
- Inhalation.
- Eye contact.
- Skin contact.

**Acute effects (acute toxicity, irritation and corrosivity):**
- Harmful if swallowed.
- Toxic in contact with skin.
- May be harmful if inhaled.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- Carcinogenicity: Based on available data, the classification criteria are not met.
- Reproductive toxicity: Based on available data, the classification criteria are not met.
- STOT-single exposure: Based on available data, the classification criteria are not met.
- STOT-repeated exposure: Based on available data, the classification criteria are not met.
- Aspiration hazard: Based on available data, the classification criteria are not met.

**12 Ecological information**

- **Toxicity**
- Aquatic toxicity: Toxic for aquatic organisms

- **Persistence and degradability**
  No relevant information available.

- **Bioaccumulative potential**
  No relevant information available.

- **Mobility in soil**
  No relevant information available.
Trade name: Quicklyser-II

- Ecotoxicological effects:
  - Remark: Very toxic for fish

- Additional ecological information

- General notes:
  Do not allow product to reach ground water, water course or sewage system.
  Must not reach bodies of water or drainage ditch undiluted or unneutralized.
  Danger to drinking water if even small quantities leak into the ground.

- Other adverse effects: No relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
    Incinerate in accordance with local, state and federal 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 must be made according to official regulations.
  - Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- UN-Number
- DOT, ADR, IMDG, IATA: UN3287

- UN proper shipping name
  Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 5 L (1.3 gal).
  - DOT: Toxic liquid, inorganic, n.o.s. (Tetradecytrimethylammonium bromide, Potassium cyanide), MARINE POLLUTANT

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<th>· ADR</th>
<th>3287 TOXIC LIQUID, INORGANIC, N.O.S. (Tetradecyltrimethylammonium bromide, Potassium cyanide), ENVIRONMENTALLY HAZARDOUS</th>
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<tr>
<td>· IMDG</td>
<td>TOXIC LIQUID, INORGANIC, N.O.S. (Tetradecyltrimethylammonium bromide, Potassium cyanide), MARINE POLLUTANT</td>
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<tr>
<td>· IATA</td>
<td>Toxic liquid, inorganic, n.o.s. (Tetradecyltrimethylammonium bromide, Potassium cyanide)</td>
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<th>Transport hazard class(es)</th>
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(Cont'd. on page 12)
## Trade name: Quicklyser-II

<table>
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<th>Label</th>
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<tbody>
<tr>
<td>Packing group</td>
<td>DOT, ADR, IMDG, IATA</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Product contains environmentally hazardous substances: Tetradecyltrimethylammonium bromide</td>
</tr>
<tr>
<td>Marine pollutant:</td>
<td>Yes (DOT)</td>
</tr>
<tr>
<td>Symbol (fish and tree)</td>
<td></td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Warning: Toxic substances</td>
</tr>
<tr>
<td>Danger code (Kemler):</td>
<td>60</td>
</tr>
<tr>
<td>EMS Number:</td>
<td>F-A,S-A</td>
</tr>
<tr>
<td>Segregation groups</td>
<td>Cyanides</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>Transport/Additional information:</td>
<td></td>
</tr>
<tr>
<td>DOT</td>
<td>Product is additionally classified as a MARINE POLLUTANT based on MARPOL and DOT rules. Labeling as a MARINE POLLUTANT is not required for non-bulk single package shipments by motor vehicle, rail car or aircraft. Bulk packaging consists of a maximum capacity of greater than 450L (119 gallons) for a liquid and a maximum net mass greater than 400kg (882 pounds) for a solid.</td>
</tr>
<tr>
<td>IATA</td>
<td>Limited quantity by air: 2L</td>
</tr>
</tbody>
</table>

## 15 Regulatory information

### Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

#### Section 302 (extremely hazardous substances):
None of the ingredients are listed.

(Cont'd. on page 13)
Trade name: Quicklyser-II

- Section 304 (emergency release notification):
  None of the ingredients are listed.

- Sections 311/312 (hazardous chemical threshold planning quantity in pounds):
  None of the ingredients are listed.

- Section 355 (extremely hazardous substances):
  151-50-8 potassium cyanide

- Section 313 (Specific toxic chemical listings):
  None of the ingredients are listed.

- TSCA (Toxic Substances Control Act)
  All ingredients are listed.

- Proposition 65 (California)
  - Chemicals known to cause cancer:
    None of the ingredients are listed.
  - Chemicals known to cause reproductive toxicity for females:
    None of the ingredients are listed.
  - Chemicals known to cause reproductive toxicity for males:
    151-50-8 potassium cyanide
  - Chemicals known to cause developmental toxicity:
    None of the ingredients are listed.

- Carcinogenic categories
  - EPA (Environmental Protection Agency):
    151-50-8 potassium cyanide
    II
  - IARC (International Agency for Research on Cancer):
    None of the ingredients are listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health):
    None of the ingredients are listed.

- Canadian substance listings
  - Canadian Domestic Substances List (DSL):
    All ingredients are listed.
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 03/30/2016 / -

· Abbreviations and acronyms:
  ADR: 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
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit
  Met. Corr.1: Corrosive to metals, Hazard Category 1
  Acute Tox. 2: Acute toxicity, Hazard Category 2
  Acute Tox. 4: Acute toxicity, Hazard Category 4
  Acute Tox. 1: Acute toxicity, Hazard Category 1
  Acute Tox. 3: Acute toxicity, Hazard Category 3
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
  STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1

· Sources
  Website, European Chemicals Agency (echa.europa.eu)
  Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)
  Website, Chemical Abstracts Registry, American Chemical Society (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