1 Identification

- Product identifier
- Trade name: qUAntify® Plus Control, Level 2
- Catalog or product number: 964
- 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
  - Repr. 1B H360 May damage fertility or the unborn child.
- Label elements
  - GHS label elements: The product is classified and labeled according to the Globally Harmonized System (GHS).
  - Hazard pictograms

- Signal word: Danger
- Hazard statements
  - H360 May damage fertility or the unborn child.
- Precautionary statements
  - P280 Wear protective gloves/protective clothing/eye protection/face protection.
  - P313 Get medical advice/attention.
- 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.
- Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.

(Contd. on page 2)
Trade name: qUAntify® Plus Control, Level 2

- vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with non-hazardous additions.

- Listing of dangerous and non-hazardous components:

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330-43-4</td>
<td>215-540-4</td>
<td>boric acid, disodium salt</td>
<td>0.1-1.0%</td>
</tr>
<tr>
<td>57-13-6</td>
<td>200-315-5</td>
<td>urea</td>
<td>0.1-1.0%</td>
</tr>
<tr>
<td>100-51-6</td>
<td>202-859-9</td>
<td>Benzyl alcohol</td>
<td>0.01-0.1%</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>231-791-2</td>
<td>water</td>
<td>50-100%</td>
</tr>
</tbody>
</table>

- SVHC

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330-43-4</td>
<td>boric acid, disodium salt</td>
<td></td>
</tr>
</tbody>
</table>

- Additional information

  Contains human sourced and/or potentially infectious components.
  Contains added constituents of animal origin.

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

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.
- Special hazards arising from the substance or mixture No further relevant information available.
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.
  - 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:
- 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:

<table>
<thead>
<tr>
<th>component</th>
<th>REL (United States)</th>
<th>TLV (United States)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330-43-4 boric acid, disodium salt</td>
<td>Long-term value: 1 mg/m³ anhydrous</td>
<td>Short-term value: 6* mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 2* mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*as inhalable fraction</td>
</tr>
<tr>
<td>67-64-1 acetone</td>
<td>PEL (United States)</td>
<td>REL (United States)</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 2400 mg/m³, 1000 ppm</td>
<td>Long-term value: 590 mg/m³, 250 ppm</td>
</tr>
</tbody>
</table>
### Trade name: qUAntify® Plus Control, Level 2

<table>
<thead>
<tr>
<th>Substance</th>
<th>Short-term/Long-term Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>7647-01-0 hydrochloric acid</td>
<td>Short-term value: 7 mg/m³, 5 ppm</td>
</tr>
<tr>
<td>REL (United States)</td>
<td>Short-term value: C 7 mg/m³, C 5 ppm</td>
</tr>
<tr>
<td>TLV (United States)</td>
<td>Short-term value: C 2.98 mg/m³, C 2 ppm</td>
</tr>
<tr>
<td>57-13-6 urea</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>WEEL (United States)</td>
<td>Long-term value: 10 ppm</td>
</tr>
<tr>
<td>100-51-6 Benzyl alcohol</td>
<td></td>
</tr>
<tr>
<td>WEEL (United States)</td>
<td>Long-term value: 10 ppm</td>
</tr>
<tr>
<td>26628-22-8 sodium azide</td>
<td>Short-term value: C 0.3** mg/m³, C 0.1* ppm</td>
</tr>
<tr>
<td>REL (United States)</td>
<td>Short-term value: C 0.29** mg/m³, C 0.11* ppm</td>
</tr>
<tr>
<td>TLV (United States)</td>
<td>Short-term value: C 0.29** mg/m³, C 0.11* ppm</td>
</tr>
</tbody>
</table>

**Ingredients with biological limit values:**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Biological Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1 acetone</td>
<td>BEI (United States) 50 mg/L</td>
</tr>
<tr>
<td>Medium: urine</td>
<td>Time: end of shift</td>
</tr>
<tr>
<td>Parameter: Acetone (nonspecific)</td>
<td></td>
</tr>
</tbody>
</table>

### 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.
- **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: Yellow
      - Odor: Odorless
  - pH-value at 20 °C: 7.0-9.0
  - 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: 0.5 %
    - Water: 50-100 %
  - Solids content: 1.8 %
  - 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.
  - 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.

(Contd. on page 6)
Trade name: qUAntify® Plus Control, Level 2

Additional toxicological information:

Carcinogenic categories

IARC (International Agency for Research on Cancer)
7647-01-0 hydrochloric acid 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
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.

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, ADN, IMDG, IATA Void

UN proper shipping name

DOT, ADR, ADN, IMDG, IATA Void

Transport hazard class(es)

ADR, ADN, IMDG, IATA

Class Void
Trade name: qUAntify® Plus Control, Level 2

- 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):
      7647-01-0 hydrochloric acid
      26628-22-8 sodium azide
    - Section 313 (40CFR372.65):
      7647-01-0 hydrochloric acid
      26628-22-8 sodium azide
      7632-00-0 sodium nitrite
  - TSCA (Toxic Substances Control Act):
    1330-43-4 boric acid, disodium salt
    50-99-7 glucose
    67-64-1 acetone
    7647-01-0 hydrochloric acid
    57-13-6 urea
    60-27-5 Creatinine
    9048-46-8 Bovine Serum Albumin
    9026-00-0 Esterase, cholesterol
    100-51-6 Benzyl alcohol
    26628-22-8 sodium azide
    1310-73-2 sodium hydroxide
    Proprietary Reagent XX
    7632-00-0 sodium nitrite
    7732-18-5 water
  - California Proposition 65:
    - Developmental Toxicity
      1405-41-0 Gentamicin Sulfate

(Contd. on page 8)
Carcinogenic categories

- EPA (Environmental Protection Agency)
  67-64-1 acetone
  TLV (Threshold Limit Value established by ACGIH)
  1330-43-4 boric acid, disodium salt A4
  67-64-1 acetone A4
  7647-01-0 hydrochloric acid A4
  26628-22-8 sodium azide 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

- Technical instructions (air):
  Class Share in %
  NK 0.1-1.0

- Water hazard class: Generally not 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)
  Repr. 1B: Reproductive toxicity, Hazard Category 1B

- * Data compared to the previous version altered.