SAFETY DATA SHEET

QUIN2

SECTION 1. IDENTIFICATION

Product name : QUIN2
Mat.-No./ Genisys-No. : 04490991190
Chemical nature : Handle as potentially infectious.

Manufacturer or supplier's details
Company name of supplier : Roche Diagnostics
Address : 9115 Hague Road
          46250 Indianapolis IN
Telephone : 1-800-428-5074
Emergency telephone number:
In case of emergencies: : CHEMTREC 1-800-424-9300 (U.S. or Canada)
                       :                1-703-527-3887 (International)

Recommended use of the chemical and restrictions on use
Restrictions on use : For professional users only.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
The product is a kit consisting of individual ingredients. The classification of the ingredients can be obtained from section 3. Section Label elements contains the resulting labelling for the kit.

GHS Label element
Not a hazardous substance or mixture.
Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

R1

GHS Classification
Not a hazardous substance or mixture.
Chemical nature : Handle as potentially infectious.

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-[bis(2-hydroxyethyl)amino]-2-[(hydroxymethyl)propane-1,3-diol</td>
<td>6976-37-0</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
</tbody>
</table>

R2
GHS Classification
Not a hazardous substance or mixture.
Chemical nature: Handle as potentially infectious.

Hazardous components
No hazardous ingredients

SECTION 4. FIRST AID MEASURES

General advice: Do not leave the victim unattended.
If inhaled: Move to fresh air.
    If unconscious place in recovery position and seek medical advice.
    If symptoms persist, call a physician.
In case of skin contact: If skin irritation persists, call a physician.
    If on skin, rinse well with water.
    If on clothes, remove clothes.
In case of eye contact: Immediately flush eye(s) with plenty of water.
    Remove contact lenses.
    Protect unharmed eye.
    Keep eye wide open while rinsing.
    If eye irritation persists, consult a specialist.
If swallowed: Clean mouth with water and drink afterwards plenty of water.
    Keep respiratory tract clear.
    Do not give milk or alcoholic beverages.
    Never give anything by mouth to an unconscious person.
    If symptoms persist, call a physician.
    Rinse mouth with water.
Notes to physician: The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media: High volume water jet
Specific hazards during firefighting: No information available.
Further information: Standard procedure for chemical fires.
    Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up

Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling

Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

R1

Components with workplace control parameters
Contains no substances with occupational exposure limit values.

R2

Components with workplace control parameters
Contains no substances with occupational exposure limit values.

Personal protective equipment

Hand protection

Material: Protective gloves
Remarks: The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection: Eye wash bottle with pure water
Skin and body protection: impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures: When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

R1
Appearance: liquid
Colour: light yellow
Odour: none
pH: 7.0
Flash point: does not flash
Solubility(ies)
Water solubility: completely miscible
Oxidizing properties: The substance or mixture is not classified as oxidizing.

R2
Appearance: liquid
Colour: milky
Odour: none
pH: 5.0 - 7.0
Flash point: does not flash
Solubility(ies)
Water solubility: completely miscible
Oxidizing properties: The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.
Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions: No decomposition if stored and applied as directed.
SECTION 11. TOXICOLOGICAL INFORMATION

R1

Information on likely routes of exposure

Acute toxicity
Not classified based on available information.

Product:
Acute oral toxicity: Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Skin corrosion/irritation
Not classified based on available information.

Product:
Remarks: May cause skin irritation and/or dermatitis.

Components:
2-[bis(2-hydroxyethyl)amino]-2-(hydroxymethyl)propane-1,3-diol:
Result: Irritating to skin.
Remarks: May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation
Not classified based on available information.

Product:
Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

Components:
2-[bis(2-hydroxyethyl)amino]-2-(hydroxymethyl)propane-1,3-diol:
Result: Irritating to eyes.
Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation
Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Not classified based on available information.

IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential
carcinogen by OSHA.

**NTP**
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity**
Not classified based on available information.

**STOT - single exposure**
Not classified based on available information.

**Components:**
2-[(bis(2-hydroxyethyl)amino)-2-(hydroxymethyl)]propane-1,3-diol:
Assessment: May cause respiratory irritation.

**STOT - repeated exposure**
Not classified based on available information.

**Components:**
2-[(bis(2-hydroxyethyl)amino)-2-(hydroxymethyl)]propane-1,3-diol:
Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Aspiration toxicity**
Not classified based on available information.

**R2**

**Information on likely routes of exposure**

**Acute toxicity**
Not classified based on available information.

**Skin corrosion/irritation**
Not classified based on available information.

**Serious eye damage/eye irritation**
Not classified based on available information.

**Respiratory or skin sensitisation**
Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

**Germ cell mutagenicity**
Not classified based on available information.

**Carcinogenicity**
Not classified based on available information.

**IARC**
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH**
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**OSHA**
No component of this product present at levels greater than or
equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity
Not classified based on available information.

STOT - single exposure
Not classified based on available information.

STOT - repeated exposure
Not classified based on available information.

Aspiration toxicity
Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

R1

Ecotoxicity

Components:
2-[bis(2-hydroxyethyl)amino]-2-(hydroxymethyl)propane-1,3-diol:
Ecotoxicology Assessment
Toxicity Data on Soil : Not expected to adsorb on soil.

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects
No data available

Product:
Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

R2

Ecotoxicity
No data available

Persistence and degradability
No data available
Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects
No data available

Product:
Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: Special treatment as infectious material is mandatory in compliance with local regulations (disinfection and incineration).
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging: Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulation

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

National Regulations

49 CFR
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

R1
EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium azide</td>
<td>26628-22-8</td>
<td>1000</td>
<td>*</td>
</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
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<tbody>
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<td>1000</td>
<td>*</td>
</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 302

: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313

: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC’s (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. Clean Water Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. Clean Water Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

sodium azide 26628-22-8 0 - 0.1 %

Pennsylvania Right To Know

water 7732-18-5 70 - 90 %
non hazardous compounds Not Assigned 5 - 10 %
sodium azide 26628-22-8 0 - 0.1 %

New Jersey Right To Know

water 7732-18-5 70 - 90 %
non hazardous compounds Not Assigned 5 - 10 %
2-[bis(2-hydroxyethyl)amino]-2-(hydroxymethyl)propane-1,3-diol 6976-37-0 1 - 5 %
sodium chloride 7647-14-5 1 - 5 %

California Prop 65

: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

R2
EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
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<th>Calculated product RQ (lbs)</th>
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</thead>
<tbody>
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<td>26628-22-8</td>
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</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

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<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
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</tr>
</thead>
<tbody>
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<td>Sodium azide</td>
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<td>1000</td>
<td>*</td>
</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
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This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know
sodium azide 26628-22-8 0 - 0.1 %

Pennsylvania Right To Know
water 7732-18-5 90 - 100 %
sodium azide 26628-22-8 0 - 0.1 %

New Jersey Right To Know
water 7732-18-5 90 - 100 %

California Prop 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
Further information

R1
NFPA:

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Special hazard.

HMIS III:

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

R2
NFPA:

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
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Special hazard.

HMIS III:

<table>
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<tr>
<th>HEALTH</th>
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<th>PHYSICAL HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
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</table>

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

Revision Date : 09-19-2014

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.