SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier: pH9 standard solution

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Disodium tetraborate anhydrous</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS No.</td>
<td>1330-43-4</td>
</tr>
<tr>
<td>EC No</td>
<td>215-540-4</td>
</tr>
</tbody>
</table>

1.2 Relevant identified uses of the substance or mixture and uses advised against

pH9 Standard solution

1.3 Details of the supplier of the safety data sheet:

Manufacture:

- **Name**: Yokogawa Electric Corporation
- **Address**: 2-9-32 Nakacho, Musashino-shi, Tokyo, 180-8750 Japan
- **Telephone**: +81-422-52-5845 (IA PF PBC Analytical Products Dept.)
- **Website**: http://www.yokogawa.com

Importer:

- **Name**: Yokogawa Europe B.V. (Regional Headquarters in EU)
- **Address**: Euroweg 2, 3825 HD Amersfoort, The Netherlands
- **Postal Address**: P.O. Box 163, 3800 AD Amersfoort, The Netherlands
- **Phone**: +31-(0)88-4641000
- **Website**: www.yokogawa.com/eu
- **E-Mail**: info@nl.yokogawa.com

1.4 **EMERGENCY TELEPHONE NUMBER:**

+31-88-4641000

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

Not classified according to Regulation (EC) No 1272/2008 [CLP]

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

**Product identifier**: pH9 standard solution

**Substance name**: Disodium tetraborate anhydrous
**CAS No.**: 1330-43-4
**EC No**: 215-540-4

**Hazard pictograms**: Not classified
**Signal word**: Not classified
**Hazard statements**: Not classified
**Precautionary statements**: Not classified
**Supplemental Hazard information (EU)**: Not applicable.
2.3 Other hazards
Not applicable

SECTION 3: Composition/information on ingredients

3.1 Mixtures

Description of the mixture:
The concentrations of substances including non-hazardous components are listed below.

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Concentration</th>
<th>Classification according Regulation (EC) No. 1272/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disodium tetraborate anhydrous</td>
<td>1330-43-4</td>
<td>215-540-4</td>
<td>Approx. 0.20% (0.01mol/kg)</td>
<td>Eye Irrit.2, Repr.1B, H360 (FD)</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>231-791-2</td>
<td>Balance</td>
<td>Not Classified</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: No information available.
Following inhalation: Move into fresh air and rinse nose and mouth with water.
Following skin contact: Wash with water/shower.
Following eye contact: Rinse opened eye for several minutes under running water.
Following ingestion: Rinse out mouth and then drink plenty of water.
In case of persistent symptoms consult doctor.

4.2 Most important symptoms and effects, both acute and delayed
No special information available

4.3 Indication of any immediate medical attention and special treatment needed
No special information available

SECTION 5: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Water, CO₂, foam, extinguishing powder.
Unsuitable extinguishing media: No information available

5.2 Special hazards arising from the substance or mixture
Thermal decomposition can lead to release of irritating and toxic gases and vapors.
5.3 Advice for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Special protective equipment is not required.

6.2 Environmental precautions:

Be careful not discharged to surface or ground water.

6.3 Methods and material for containment and cleaning up

For containment: Put in suitable, closed containers or plastic bags for disposal.

For cleaning up: Wipe with waste clothes or papers, and wash the spill site with water.

6.4 Reference to other sections

For disposal refer to section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures: No special measures required.

Advice on general occupational hygiene: Not to eat, drink and smoke in work areas.

7.2 Conditions for safe storage, including any incompatibilities

Further information on storage conditions:
Keep in cool and dried place, away from direct sunlight.

7.3 Specific end uses

Refer to section 1.
SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Not applicable.

8.2 Exposure controls

No special measures required.

Personal protective equipment:
Eye / Face protection : Safety glasses recommended.
Skin protection : Protective gloves impervious to water recommended.
Respiratory protection : Not required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
Physical state : Liquid
Colour : Colourless and clear

Odour : Odourless

pH : 9.18 (25 degree)
Melting point / freezing point : No data available (freezing at approx. 0degree)
Initial boiling point /boiling range : No data available (approx.100degree)
Flash point : No data available
Evaporation rate : No data available
Flammability (solid, gas) : No data available
Upper/lower flammability or explosive limits
Upper : No data available
Lower : No data available
Vapour pressure : No data available
Vapour density : No data available
Relative density : No data available (approx.1.0)
Solubilities : Water freely miscible.
Partition coefficient(n-octanol/water) : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
Explosive properties : No data available
Oxidising properties : No data available

9.2 Other information:

Physical hazards: No data available
SECTION 10: Stability and reactivity

10.1 Reactivity: No data available

10.2 Chemical stability: Stable under recommended storage conditions. Refer to section 7.

10.3 Possibility of hazardous reactions: No data available

10.4 Conditions to avoid: Extremes of temperature and direct sunlight. It’s not hazardous but easy to reduce the quality.

10.5 Incompatible materials: No data available.

10.6 Hazardous decomposition products: No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

(a) acute toxicity; ATEmix(oral) = no data available
    ATEmix (dermal) = no data available
    ATEmix (Inhalation) = no data available
    (Information of single component)
    Sodium tetraborate decahydrate Oral LD50 = 3200 mg/kg (RAT)
    Dermal LD50 > 10000 mg/kg (RABBIT)

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available and not classified. Because this product contains eye irritant substance less than 10%. Refer to Section 16.

(d) respiratory or skin sensitization; No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

(g) reproductive toxicity; No data available and not classified. Because this product contains Rep.1B substance less than 0.3%. Refer to Section 16.

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

(j) aspiration hazard; No data available

11.2 Other information
When used and handled according to specifications, the product does not have any harmful effects.
SECTION 12: Ecological information

12.1 Toxicity:

Aquatic toxicity: No data available

(Information of single component)

Sodium tetraborate decahydrate

Fish: LC50: Zebrafish 14.2mg boron/L 96 h

12.2 Persistence and degradability: No information available

12.3 Bioaccumulative potential: No information available

12.4 Mobility in soil: No information available

12.5 Results of PBT and vPvB assessment: Not applicable.

12.6 Other adverse effects:

No ecological problems are to be expected when the product is handled and used with due care and attention.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

**Product / Packaging disposal:**
Disposal should be in accordance with applicable regional, national and local laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.

Empty ampoules can be treated like household refuse.

**Waste codes / waste designations according to EWC:**
16 03 03; inorganic wastes containing dangerous substances
SECTION 14: Transport information

Non-hazardous material. Not subject to transport regulations

<table>
<thead>
<tr>
<th>14.1 UN No.</th>
<th>Land transport (ADR/RID)</th>
<th>Inland waterway transport (ADN)</th>
<th>Sea transport (IMDG)</th>
<th>Air transport (ICAO-TI / IATA-DGR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.2 UN Proper shipping name</th>
<th>Non-hazardous material</th>
<th>Non-hazardous material</th>
<th>Non-hazardous material</th>
<th>Non-hazardous material</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hazard label(s)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Not applicable.
The material is not subject to classification according to regulation EC 1272/ 2008 [CLP]. Observe the normal safety regulations when handling chemicals.

Other regulations, limitations and prohibitive regulations
- Substances of very high concern (SVHC) according to REACH, Article 57 1330-43-4 Disodium tetraborate anhydrous

Observe the normal safety regulations when handling chemicals.

15.2 Chemical Safety Assessment:

For this product a chemical safety assessment is not required.
SECTION 16: Other information

16.1 Indication of changes
Revised at 5th August 2016 (Ver1.02):
- Addition of Part No “K9084LN” at header on each page
- Change of substance name and concentration. Because sodium tetraborate hecahydrate is considered as anhydrous in water.
- SECTION 2 and SECTION 15 are updated due to update of SECTION 3, SECTION 11 and SECTION 16.4.
Revised at 18th April 2016 (Ver1.01):
- Correction of erroneous descriptions in Section 2.1, Section 12.1 and Section 13.1
Issued at 31st March 2016 (Ver1.00)

16.2 Abbreviations and acronyms:
- Eye Irrit.2 = Eye irritation, category 2
- Repr.1B = Reproductive toxicity, category 1B

16.3 Key literature references and sources for data
Summary of Classification and Labelling in the ECHA classification and labelling inventory

SDS provided by Wako Pure Chemical Industries, Ltd
W01W0119-0145 JGHEEN Sodium Tetraborate (Version 2)

SDS provided by Toko Chemical Laboratory, Ltd (SDS No. A0022-3)

16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]:
This product is not classified because it contains disodium tetraborate anhydrous only 0.2%. (refer to section 3.1 of this SDS).
For Eye irritation, concentration limit is listed in Table 3.3.3 (section 3.3.3.5) of regulation EC 1272/2008 [CLP].
For reproductive toxicity, concentration limit is listed in Table 3.7.2 (section 3.7.3.1.2) of regulation EC 1272/2008 [CLP].

16.5 Further information:
The information provided in this Safety Data Sheet is based on the present state of knowledge and is believed to be correct. Its purpose is to characterize the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.