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

1.1 Product identifier: Powder for buffer solution (pH 7)

Substance name: Potassium dihydrogenphosphate / Disodium hydrogenphosphate
CAS No.: 7778-77-0/7558-79-4
EC No.: 231-913-4/231-448-7

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

Used for preparing pH 7 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: +81-422-52-5555 (General affairs 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: Powder for buffer solution (pH 7)

Substance name: Potassium dihydrogenphosphate / Disodium hydrogenphosphate
CAS No.: 7778-77-0/7558-79-4
EC No.: 231-913-4/231-448-7

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 to Regulation (EC) No. 1272/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dihydrogen phosphate</td>
<td>7778-77-0</td>
<td>231-913-4</td>
<td>Approx. 49%</td>
<td>Not Classified</td>
</tr>
<tr>
<td>Disodium hydrogen phosphate</td>
<td>7558-79-4</td>
<td>231-448-7</td>
<td>Approx. 51%</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.
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: Pick up the materials 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.
Safety Data Sheet
according to Regulation (EC) No 1907/2006 (REACH)  

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Crystalline powder</td>
</tr>
<tr>
<td>Physical state</td>
<td>Crystalline powder</td>
</tr>
<tr>
<td>Colour</td>
<td>White</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>pH</td>
<td>No data available. (approx. 7 if dissolved in water)</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>approx. 240~260 degrees.C (decomposition)</td>
</tr>
<tr>
<td>Initial boiling point / boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available (approx. 1.84 at 20 degrees.C)</td>
</tr>
<tr>
<td>Solubilities</td>
<td>water; freely soluble</td>
</tr>
<tr>
<td></td>
<td>ethanol; very slightly soluble</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>approx. 240~260 degrees.C</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

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 : High temperature, high humidity and direct sunlight conditions are not recommended. It’s not hazardous but may 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)
  Disodium hydrogenphosphate Oral LD50 > 17g/kg (RAT)

- (b) **skin corrosion/irritation**
  - ; No data available
  
  (Information of single component)
  Disodium hydrogenphosphate 500 mg/24H; mild (Rabbit)

- (c) **serious eye damage/irritation**
  - ; No data available
  
  (Information of single component)
  Disodium hydrogenphosphate 500mg/24H; mild (Rabbit) [RTECS]

- (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

- (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

#### 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 04 / inorganic wastes other than those mentioned in 16 03 03 (cf. 16 03 03; inorganic wastes containing dangerous substances)

SECTION 14: Transport information

Non-hazardous material. Not subject to transport regulations

<table>
<thead>
<tr>
<th></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>14.1 UN No.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.2 UN Proper shipping name</td>
<td>Non-hazardous material</td>
<td>Non-hazardous material</td>
<td>Non-hazardous material</td>
<td>Non-hazardous material</td>
</tr>
<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.

15.2 Chemical Safety Assessment:

For this product a chemical safety assessment is not required.

SECTION 16: Other information

16.1 Indication of changes
No information available.

16.2 Key literature references and sources for data

SDS provided by Toko Chemical Laboratory, Ltd (No. A0038)
SDS provided by Koso Chemical Co, Ltd (No. 13060-6/No. 11752-6)
SDS provided by Wako Pure Chemical Industries, Ltd
  W01W0116-0424 JGHEEN  Potassium Dihydrogen Phosphate (Version 1)
  W01W0119-0286 JGHEEN  Disodium Hydrogenphosphate (Version 5.04)

16.3 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.