

## Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date 22.09.2010

Revision: 22.09.2010

### 1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Name of chemical substance:** pH4 Standard Solution 100-4
- **Article number:** 3200043638 (9003001600)
- **MSDS No:** 4
- **Application of the substance / the preparation** Calibration for pH electrode
- **Manufacturer/Supplier:**  
HORIBA, Ltd.  
2 Miyanohigashi, Kisshoin,  
Minami-ku Kyoto, Japan, KYOTO  
601-8510 JAPAN  
techinfo.hor@jp.horiba.com
- **Further information obtainable from:** Water and Temperature Measurement R&D Dept.
- **Information in case of emergency:**  
During normal opening times: +81 75 313-8121  
USA Contact : Chemtrec (800) 424-9300

### 2 Hazards identification

- **Hazard description:** Not applicable.
- **Information concerning particular hazards for human and environment:**  
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **GHS label elements** Void

### 3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Components:**

|          |                              |             |
|----------|------------------------------|-------------|
| 877-24-7 | potassium hydrogen phthalate | Nearly 1,0% |
|----------|------------------------------|-------------|

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

- **General information:** No special measures required.
- **After inhalation:**  
Remove the victim to fresh air, and make him blow his nose and gargle. Refer for medical attention.
- **After skin contact:** Wash the affected areas under running water.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Give the victim water. If necessary, get medical attention.

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### 5 Fire-fighting measures

- **Suitable extinguishing agents:** This product is noncombustible.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** The protective equipment is worn.
- **Measures for environmental protection:** No special measures required.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Additional information:** No dangerous substances are released.

### 7 Handling and storage

- **Handling:**
- **Information for safe handling:** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in a cool place.
- **Storage class:**
- **Class according to regulation on flammable liquids:** Void

### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:**  
Provide good ventilation. Make available washbasin and eye wash near the work area.
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **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

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resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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:** Goggles recommended during refilling

· **Body protection:** Protective work clothing

### 9 Physical and chemical properties

· **General Information**

|                |            |
|----------------|------------|
| <b>Form:</b>   | Liquid     |
| <b>Colour:</b> | Colourless |
| <b>Odour:</b>  | Odourless  |

· **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** 100°C

· **Flash point:** Not applicable.

· **Self-igniting:** Product is not selfigniting.

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

· **Density at 20°C:** 1 g/cm<sup>3</sup>

· **Solubility in / Miscibility with water:** Fully miscible.

· **pH-value at 25°C:** 4,01

### 10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

· **Materials to be avoided:**

· **Dangerous reactions** No dangerous reactions known.

· **Dangerous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

**877-24-7 potassium hydrogen phthalate**

|      |      |                  |
|------|------|------------------|
| Oral | LD50 | 3200 mg/kg (rat) |
|------|------|------------------|

|        |      |                    |
|--------|------|--------------------|
| Dermal | LD50 | 1000 mg/kg (mouse) |
|--------|------|--------------------|

· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** No irritating effect.

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- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.  
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

### 12 Ecological information

- **Additional ecological information:**
- **General notes:** Generally not hazardous for water

### 13 Disposal considerations

- **Product:**
- **Recommendation**  
Dilute concentrate with water and neutralize afterwards with suitable alkali material (sodium hydroxide solution, lime). The formed neutral salts are relatively environment-friendly.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -

- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **UN "Model Regulation":** -

- **Transport/Additional information:**  
Check the containers are tightly sealed. Handle carefully so that they will not be damaged by falling or dropping. Keep away from water.

### 15 Regulatory information

- **Labelling according to EU guidelines:**  
Observe the general safety regulations when handling chemicals.  
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

- **National regulations:**
- **Classification according to VbF:** Void

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**· Waterhazard class:** Generally not hazardous for water.

### 16 Other information

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**· Department issuing MSDS:** Water and Temperature Measurement R&D Dept.**· 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)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

**· Sources**

The MERCK Index 12th Edition

HANDBOOK OF ENVIRONMENTAL DATA ON ORGANIC CHEMICALS (Karel Verschueren VAN NOSTRAND REINHOLD)

Safety data sheet guidebook edited by the information center of the Society for Japan Chemical Industry

**· \* Data compared to the previous version altered.**

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