



## Safety Data Sheet

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### 1. Identification of the substance/mixture and of the company/undertaking

**Product identifier:**

Product name: pH 6.5 Phosphate buffer solution

SDS No. : D0025E-2

**Details of the supplier of the safety data sheet**

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

Address: 3-1, Honmachibashi, Chuo-ku, Osaka, JAPAN

Division: Safety Management Dept. of Chemicals

Telephone number: +81-6-6946-8061

FAX: +81-6-6946-1607

e-mail address: kagakuhinanzenkanri@kishida.co.jp

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### 2. Hazards identification

**GHS classification and label elements of the product****Classification of the substance or mixture**

(Note) GHS classification without description: Not classified/Classification not possible

**Label elements**

No GHS label element

No Signal word

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### 3. Composition/information on ingredients

**Mixture/Substance selection:****Mixture**

Ingredient name:Potassium dihydrogenphosphate

Content (%):1.3

Chemical formula:H<sub>2</sub>KO<sub>4</sub>P

Chemicals No, Japan:1-452

CAS No.:7778-77-0

MW:136.09

ECNO:231-913-4

Ingredient name:Potassium sodium phosphate

Content (%):0.86

Chemical formula:H<sub>3</sub>O<sub>4</sub>PKNa

CAS No.:14518-27-5

ECNO:238-525-4

Ingredient name:trans-1,2-Cyclohexanediaminetetraacetic acid

Content (%):0.091

Chemical formula:C<sub>14</sub>H<sub>22</sub>N<sub>2</sub>O<sub>8</sub>

CAS No.:13291-61-7

ECNO:236-308-9

Ingredient name:Water

Content (%):98

Chemical formula:H<sub>2</sub>O



CAS No.:7732-18-5

MW:18.02

ECNO:231-791-2

Note : The figures shown above are not the specifications of the product.

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#### 4. First-aid measures

##### Descriptions of first-aid measures

###### IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

###### IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water/shower.

If skin irritation or rash occurs: Get medical advice/attention.

###### IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

###### IF SWALLOWED

Rinse mouth.

Call a POISON CENTER or doctor/physician if you feel unwell.

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#### 5. Fire-fighting measures

##### Extinguishing media

###### Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media data is not available.

##### Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

##### Advice for firefighters

###### Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

###### Special protective equipment and precautions for fire-fighters

Wear fire/flame resistant/retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

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#### 6. Accidental release measures

##### Personnel precautions, protective equipment and emergency procedures

Ventilate area until material pick up is complete.

Wear proper protective equipment.

##### Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

##### Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

##### Preventive measures for secondary accident

Collect spillage.



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## 7. Handling and storage

### Precautions for safe handling

#### Preventive measures

(Protective measures against fire and explosion)

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

#### Safety Measures

Wear protective gloves, protective clothing or face protection.

When using do not eat, drink or smoke.

#### Any incompatibilities

See "10.Stability and Reactivity"

### Storage

#### Conditions for safe storage

Keep container tightly closed.

Store in a cool, dry place. Do not store in direct sunlight.

#### Container and packaging materials for safe handling

Glass

Polyethylene

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## 8. Exposure controls/personal protection

### Control parameters

### Exposure controls

#### Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.

Washing facilities should be available.

#### Individual protection measures

##### Respiratory protection

Wear respiratory protection.

##### Hand protection

Wear protective gloves.

##### Eye protection

Wear eye/face protection.

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## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Physical state: Liquid

Color: Colorless

Odor: None

pH: about 6.5

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Melting point/Freezing point data is not available.

Decomposition temperature data is not available.

Flammability (gases, liquids and solids) data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.



Lower and upper explosion limit/flammability limit data is not available.

Vapor pressure data is not available.

Relative vapor density (Air=1) data is not available.

Density and/or relative density: 1.01g/cm<sup>3</sup>

Kinematic viscosity data is not available.

Solubility:

Solubility in water: Soluble

n-Octanol/water partition coefficient data is not available.

No Particle characteristics data is not available.

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## 10. Stability and Reactivity

### Reactivity

Not available.

### Chemical stability

Stable under normal storage/handling conditions.

### Possibility of hazardous reactions

(Potassium dihydrogenphosphate)

Decomposes on heating. This produces toxic gases. The solution in water is a weak acid.

(ICSC 1608)

### Conditions to avoid

Contact with fire source.

### Incompatible materials

Not available.

### Hazardous decomposition products

Carbon oxides, Nitrogen oxides, Phosphorus compounds

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## 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

##### Acute toxicity (Oral)

[Company proprietary data]

(Potassium dihydrogenphosphate)

rat LD50=3200 mg/kg (HSDB)

##### Acute toxicity (Dermal)

[Company proprietary data]

(Potassium dihydrogenphosphate)

rabbit LD50>4640 mg/kg

#### Irritant properties

##### Skin corrosion/irritation

[Company proprietary data]

(trans-1,2-Cyclohexanediaminetetraacetic acid)

(As trans-1,2-cyclohexanediaminetetraacetic acid,1-hydrate) Category2

##### Serious eye damage/irritation

[Company proprietary data]

(trans-1,2-Cyclohexanediaminetetraacetic acid)

(As trans-1,2-cyclohexanediaminetetraacetic acid,1-hydrate) Category2A

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenic effects data is not available.

Reproductive toxicity data is not available.

#### STOT

STOT-single exposure data is not available.



STOT-repeated exposure data is not available.  
Aspiration hazard data is not available.

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## 12. Ecological Information

### Ecotoxicity

Ecotoxicity data is not available.

### Water solubility

(Potassium dihydrogenphosphate)  
22 g/100 ml (ICSC, 2005)

### Persistence and degradability

Persistence and degradability data is not available.

### Bioaccumulative potential

Bioaccumulative potential data is not available.

### Mobility in soil

Mobility in soil data is not available.

### Other adverse effects

Ozone depleting chemical data is not available.

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## 13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

### Waste treatment methods

Dispose of contents/container in accordance with local/national regulation.

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## 14. Transport Information

Not applicable to UN No., UN CLASS

Not applicable to IMDG Code

Not applicable to IATA Dangerous Goods Regulations

### Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no) : no

Transport in bulk according to Annex II of MARPOL73/78 and IBC Code

Non Noxious Liquid ; Cat. OS

Water

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## 15. Regulatory Information

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

### US Federal Regulations

Chemicals listed in TSCA Inventory

Water; Potassium dihydrogenphosphate; trans-1,2-Cyclohexanediaminetetraacetic acid

### Other regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

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## 16. Other information

The product is not applicable to GHS classifications.

### Reference Book

Globally Harmonized System of classification and labelling of chemicals, (6th ed., 2015), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN



IMDG Code, 2018 Edition (Incorporating Amendment 39-18)  
IATA Dangerous Goods Regulations (61th Edition) 2020  
Classification, labelling and packaging of substances and mixtures (Table 3 ECNO6182012)  
2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)  
2019 TLVs and BEIs. (ACGIH)  
<http://monographs.iarc.fr/ENG/Classification/index.php>  
Supplier's data/information

**General Disclaimer**

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2018).