

# Buffer Solution, pH 4.01

## Safety Data Sheet



### SECTION 1: Identification

#### 1.1. Identification

Product name : Buffer Solution, pH 4.01  
Product number : 30100425

#### 1.2. Recommended use and restrictions on use

Recommended use : Laboratory chemicals

#### 1.3. Supplier

Ohaus Instruments (Changzhou)co.,ltd  
Building 22  
538 West Hehai Road  
Xinbei District, Changzhou,Jiangsu Province,213012  
China  
T 4008-217-188  
pH@ohaus.com

#### 1.4. Emergency telephone number

Emergency number : Emergency CONTACT (24-Hour-Number)  
GBK/Infotrac ID114774 : (USA domestic) 1 800 535 5053 or international (001) 352 323 3500

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

The product is not classified as hazardous according to the Globally Harmonized System (GHS).

#### 2.2. GHS Label elements, including precautionary statements

Not regulated.

#### 2.3. Other hazards which do not result in classification

There are no other hazards not otherwise classified that have been identified.

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

| Name                         | Product identifier | %    | GHS US classification |
|------------------------------|--------------------|------|-----------------------|
| Water                        | CAS-No.: 7732-18-5 | >98  |                       |
| potassium hydrogen phthalate | CAS-No.: 877-24-7  | 1.01 |                       |

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| Name   | Product identifier | %    | GHS US classification   |
|--|--------------------|------|---|
| hexa-2,4-dienoic acid  | CAS-No.: 110-44-1  | <0.1 | Skin Irrit. 2, H315<br>Eye Irrit. 2A, H319<br>STOT SE 3, H335 |
| 2,7-Naphthalenedisulfonic acid, 5-(acetylamino)-4-hydroxy-3-[(2-methoxyphenyl)azo]-, disodium salt | CAS-No.: 6625-46-3 | <0.1 |   |

Full text of hazard classes and H-statements: see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

|                                       |   |
|---------------------------------------|---|
| First-aid measures general            | : Call a physician immediately.   |
| First-aid measures after inhalation   | : Supply fresh air; consult doctor in case of complaints.   |
| First-aid measures after skin contact | : Rinse with warm water.<br>If skin irritation is experienced, consult a doctor.  |
| First-aid measures after eye contact  | : Remove contact lenses if worn, if possible.<br>Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. |
| First-aid measures after ingestion    | : Rinse mouth. Call a physician immediately. Do not induce vomiting.  |

#### 4.2. Most important symptoms and effects (acute and delayed)

Gastric or intestinal disorders when ingested.

#### 4.3. Immediate medical attention and special treatment, if necessary

No relevant information available.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

|                              |   |
|------------------------------|---|
| Suitable extinguishing media | : The product is not flammable.<br>Use firefighting measures that suit the environment. |
|------------------------------|---|

#### 5.2. Specific hazards arising from the chemical

Formation of toxic gases is possible during heating or in case of fire.

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

|                                |   |
|--------------------------------|---|
| Protection during firefighting | : Wear self-contained respiratory protective device.<br>Wear fully protective suit. |
|--------------------------------|---|

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.  
Use personal protective equipment as required.

#### 6.2. Environmental precautions

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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### 6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Send for recovery or disposal in suitable receptacles.

### 6.4. Reference to other sections

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid splashes or spray in enclosed areas.  
Use only in well ventilated areas.  
Information about protection against explosions and fires : No special measures required.

### 7.2. Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles : Store only in the original receptacle.  
Unsuitable material for receptacle: aluminum.  
Store in cool, dry conditions in well-sealed receptacles.  
Information about storage in one common storage facility : Store away from foodstuffs.  
Store away from metals.  
Store away from oxidizing agents.  
Do not store together with alkalis (caustic solutions).

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Components 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.

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Provide adequate ventilation.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

Wear respiratory protection.

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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|   |                             |
|---|-----------------------------|
| Physical state                              | : Liquid                    |
| Color                                       | : Red                       |
| Odor  | : Odorless                  |
| Odor threshold                              | : No determined.            |
| pH  | : 4.00                      |
| Melting point                               | : No data available         |
| Freezing point                              | : No data available         |
| Boiling point                               | : 100-101 °C (212-149.8 °F) |
| Flash point                                 | : Not applicable.           |
| Relative evaporation rate (butyl acetate=1) | : No data available         |
| Flammability (solid, gas)                   | : Not applicable.           |
| Vapor pressure                              | : 23 hPa (17.3 mm Hg)       |
| Relative vapor density at 20 °C             | : No data available         |
| Relative density                            | : No data available         |
| Solubility                                  | : Soluble.                  |
| Log Pow                                     | : No data available         |
| Auto-ignition temperature                   | : No data available         |
| Decomposition temperature                   | : No data available         |
| Viscosity, kinematic                        | : No data available         |
| Viscosity, dynamic                          | : No data available         |
| Explosion limits                            | : No data available         |
| Explosive properties                        | : No data available         |
| Oxidizing properties                        | : Non-oxidizing.            |

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No relevant information available.

#### 10.2. Chemical stability

Stable under normal temperatures and pressures.

#### 10.3. Possibility of hazardous reactions

Reacts with alkali (lyes).  
Toxic fumes may be released if heated above the decomposition point.

#### 10.4. Conditions to avoid

Store away from oxidizing agents.

#### 10.5. Incompatible materials

No relevant information available.

#### 10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

|                             |   |
|-----------------------------|---|
| Acute toxicity (oral)       | : Based on available data, the classification criteria are not met. |
| Acute toxicity (dermal)     | : Not classified  |
| Acute toxicity (inhalation) | : Not classified  |

#### IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

#### NTP (National Toxicology Program):

None of the ingredients are listed.

#### OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

|                                     |   |
|-------------------------------------|---|
| Skin corrosion/irritation           | : Based on available data, the classification criteria are not met. |
| Serious eye damage/irritation       | : Based on available data, the classification criteria are not met. |
| Respiratory or skin sensitization   | : Based on available data, the classification criteria are not met. |
| Germ cell mutagenicity              | : Based on available data, the classification criteria are not met. |
| Carcinogenicity                     | : Based on available data, the classification criteria are not met. |
| Reproductive toxicity               | : Based on available data, the classification criteria are not met. |
| STOT-single exposure                | : Based on available data, the classification criteria are not met. |
| STOT-repeated exposure              | : Based on available data, the classification criteria are not met. |
| Aspiration hazard                   | : Based on available data, the classification criteria are not met. |
| Viscosity, kinematic                | : No data available   |
| Symptoms/effects after skin contact | : Burns.  |
| Symptoms/effects after eye contact  | : Serious damage to eyes.   |
| Symptoms/effects after ingestion    | : Burns.  |

### SECTION 12: Ecological information

#### 12.1. Toxicity

Aquatic toxicity : No relevant information available.

#### 12.2. Persistence and degradability

No relevant information available

#### 12.3. Bioaccumulative potential

No relevant information available.

#### 12.4. Mobility in soil

No relevant information available.

#### 12.5. Other adverse effects

No relevant information available.

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### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Waste treatment methods : Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.  
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

### SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

| DOT                                     | TDG            | IMDG           | IATA           |
|---|----------------|----------------|----------------|
| <b>14.1. UN number</b>                  |                |                |                |
| Not regulated.                          | Not regulated. | Not regulated. | Not regulated. |
| <b>14.2. Proper Shipping Name</b>       |                |                |                |
| Not regulated.                          | Not regulated. | Not regulated. | Not regulated. |
| <b>14.3. Transport hazard class(es)</b> |                |                |                |
| Not regulated.                          | Not regulated. | Not regulated. | Not regulated. |
| <b>14.4. Packing group</b>              |                |                |                |
| Not regulated.                          | Not regulated. | Not regulated. | Not regulated. |
| <b>14.5. Environmental hazards</b>      |                |                |                |
| No                                      | No             | No             | No             |
| No supplementary information available  |                |                |                |

#### 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. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

|           |  |
|-----------|--|
| 877-24-7  | potassium hydrogen phthalate   |
| 110-44-1  | hexa-2,4-dienoic acid  |
| 6625-46-3 | 2,7-Naphthalenedisulfonic acid, 5-(acetylamino)-4-hydroxy-3-[(2-methoxyphenyl)azo]-, disodium salt |
| 7732-18-5 | Water  |

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

None of the ingredients are listed.

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### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

#### National regulations

No additional information available

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

None of the ingredients are listed.

## SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Other information

: Data of sections 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities. The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge. The delivery specifications are contained in the corresponding product sheet. This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

| Full text of H-phrases |  |
|------------------------|--|
| H272                   | May intensify fire; oxidizer   |
| H290                   | May be corrosive to metals.  |
| H300                   | Fatal if swallowed   |
| H301                   | Toxic if swallowed   |
| H311                   | Toxic in contact with skin   |
| H312                   | Harmful in contact with skin   |
| H314                   | Causes severe skin burns and eye damage                                      |
| H317                   | May cause an allergic skin reaction.   |
| H318                   | Causes serious eye damage  |
| H330                   | Fatal if inhaled   |
| H334                   | May cause an allergy or asthma symptoms or breathing difficulties if inhaled |
| H340                   | May cause genetic defects  |
| H350                   | May cause cancer   |
| H372                   | Causes damage to organs through prolonged or repeated exposure               |
| H400                   | Very toxic to aquatic life   |
| H401                   | Toxic to aquatic life  |
| H410                   | Very toxic to aquatic life with long lasting effects                         |
| H411                   | Toxic to aquatic life with long lasting effects                              |

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| Abbreviations and acronyms |   |
|----------------------------|---|
| ADN                        | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR                        | European Agreement concerning the International Carriage of Dangerous Goods by Road             |
| ATE                        | Acute Toxicity Estimate   |
| BCF                        | Bioconcentration factor   |
| BLV                        | Biological limit value  |
| BOD                        | Biochemical oxygen demand (BOD)   |
| COD                        | Chemical oxygen demand (COD)  |
| DMEL                       | Derived Minimal Effect level  |
| DNEL                       | Derived-No Effect Level   |
| EC-No.                     | European Community number   |
| EC50                       | Median effective concentration  |
| EN                         | European Standard   |
| IARC                       | International Agency for Research on Cancer   |
| IATA                       | International Air Transport Association   |
| IMDG                       | International Maritime Dangerous Goods  |
| LC50                       | Median lethal concentration   |
| LD50                       | Median lethal dose  |
| LOAEL                      | Lowest Observed Adverse Effect Level  |
| NOAEC                      | No-Observed Adverse Effect Concentration  |
| NOAEL                      | No-Observed Adverse Effect Level  |
| NOEC                       | No-Observed Effect Concentration  |
| OECD                       | Organisation for Economic Co-operation and Development  |
| OEL                        | Occupational Exposure Limit   |
| PBT                        | Persistent Bioaccumulative Toxic  |
| PNEC                       | Predicted No-Effect Concentration   |
| RID                        | Regulations concerning the International Carriage of Dangerous Goods by Rail                    |
| SDS                        | Safety Data Sheet   |
| STP                        | Sewage treatment plant  |
| ThOD                       | Theoretical oxygen demand (ThOD)  |
| TLM                        | Median Tolerance Limit  |
| VOC                        | Volatile Organic Compounds  |
| CAS-No.                    | Chemical Abstract Service number  |
| N.O.S.                     | Not Otherwise Specified   |
| vPvB                       | Very Persistent and Very Bioaccumulative  |
| ED                         | Endocrine disrupting properties   |
| DOT                        | Department of Transport   |



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### Abbreviations and acronyms

|              |   |
|--------------|---|
| TDG          | Transportation of Dangerous Goods   |
| REACH        | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006   |
| GHS          | Globally Harmonized System of Classification, Labelling and Packaging of Chemicals                  |
| IBC-Code     | International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk |
| CLP          | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008                         |
| MARPOL 73/78 | MARPOL 73/78: International Convention for the Prevention of Pollution From Ships                   |
| ADG          | Transport of Australian Dangerous Goods   |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should therefore not be construed as guaranteeing any specific property of the product.



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