

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product Name: Buffer Solution pH 4.01 $\pm$ 0.01 (at 25°C)

Catalog Number: 168400

Chemical Name: pH buffer

Chemical Formula: Not applicable

Chemical Family: Not applicable

Hazard: Practically non-toxic.

Date of SDS Preparation:

Day: 19

Month: January

Year: 2026

Details of the supplier of the safety data sheet

Company Name: Rocker Scientific Co.,Ltd.

Address: 11F, No. 402, Sec. 1, Ren'ai Rd., Linkou Dist., New Taipei City 244014, Taiwan (R.O.C.)

Telephone: + 886-2-26033311

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Label:



Corrosion

Cause Serious Eye Damage



Attention

Cause Skin Irritation

Signal Word:

Hazard Statements:

Potential Health Effects

Hazard Prevention Measure: If eyes contact to buffer, please eye-flush for several minutes. Take off the contact lenses. Keep flushing. If you are still uncomfortable, please seek for medical care.

Classification

Serious eye damage/eye irritation Category 1, Skin corrosion/irritation Category 2

Hazards Not Otherwise Classified (HNOC) or Not Cover by GHS

Not applicable.

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Potassium Hydrogen Phthalate

CAS No.: 877-24-7

Percent Range: 1.0 - 5.0

Percent Range Units: weight / volume

Hazard: May cause irritation.

Demineralized Water

CAS No.: 7732-18-5

Percent Range: >95.0

Percent Range Units: weight / weight

Hazard: No effects anticipated.

Other Components, each

CAS No.: Not applicable

Percent Range: < 1.0

Percent Range Units: volume / volume

Hazard: Any ingredient(s) of this product listed as "Other component(s)" is not considered a health hazard to the user of this product.

SECTION 4. FIRST AID MEASURE

Description of First Aid Measures

Eye Contact: Flush eyes with water. Call physician if irritation develops.

Skin Contact (First Aid): Wash skin with soap and plenty of water.

Ingestion (First Aid): Give large quantities of water. Call physician immediately.

Inhalation: None required.

Most Important Symptoms and Effects, Both Acute and Delayed

Slight irritation. The most important known symptoms and effects are described in section 2 and/ or in section 11.

Indication of Any Immediate Medical Attention and Special Treatment Needed

No data available. Inform about contact pH 4.01 buffer solution.

SECTION 5. FIREFIGHTING MEASURES

Flammable Properties: Material will not burn.

Flash Point: Not applicable

Method: Not applicable

Flammability Limits:

Lower Explosion Limits: Not applicable

Upper Explosion Limits: Not applicable

Autoignition Temperature: Not applicable

Hazardous Combustion Products: Not applicable

Fire / Explosion Hazards: None reported

Static Discharge: None reported.

Mechanical Impact: None reported

Extinguishing Media: Use media appropriate to surrounding fire conditions

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure demand and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Containment Technique:

Stop all leaks. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Absorb spill with inert material (e.g. dry sand, earth).

Clean-up Technique:

Absorb spilled liquid with non-reactive sorbent material. Place material in a plastic bag. Mark bag 'Non-hazardous trash' and dispose of as normal refuse.

SECTION 7. HANDLING AND STORAGE

Handling: Avoid contact with eyes Wash thoroughly after handling.

Storage: Keep container tightly closed when not in use.

Flammability Class: Not applicable

SECTION 8. EXPOSURE CONTROLS / PERSONAL EQUIPMENT

Engineering Controls: Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment: None

Eye Protection: safety glasses with top and side shields

Skin Protection: disposable latex gloves

Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes Wash thoroughly after handling.

SECTION 9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: Clear, red liquid

Physical State: Liquid

Odor: None

pH: 4.01 at 25°C

Flash Point: Not applicable

Boiling Point: 100°C (212°F)

Melting Point: < 0°C (< 32°F)

Specific Gravity (water = 1): 1.002 ned

Solubility:

Water: Soluble

Acid: Soluble

Other: Not determined

Metal Corrosivity: Not determined

Explosion hazard: Not explosive

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Conditions to Avoid: Extreme temperatures

Reactivity / Incompatibility: None reported

Hazardous Decomposition: None reported.

SECTION 11. TOXICOLOGICAL INFORMATION

Product Toxicological Data: LD50: None reported

Acute toxicity: None reported

Skin Corrosion/Irritation: None reported

Serious Eye Damage/Irritation: None reported

Respiratory or Skin Sensitisation: None reported

Mutation Data: None reported

Reproductive Toxicity: None reported

Germ Cell Mutagenicity: None reported

Carcinogenicity: None reported

STOT-single Exposure: Not classified as hazardous for single dose

STOT-repeated Exposure: Not classified as hazardous for repeated dose

Aspiration Hazard: Not classified as hazardous by aspiration

SECTION 12. ECOLOGICAL INFORMATION

Product Ecological Information: No ecological data available for this product

Ingredient Ecological Information: No ecological data available for the ingredients of this product

Persistence and degradability: No data available

Bioaccumulation: No data available

Mobility: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: None

Special Instructions (Disposal): Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Open cold water tap completely, slowly pour the reacted material to the drain.

Empty Containers: Rinse three times with an appropriate solvent. Dispose of empty container as normal trash.

NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

SECTION 14. TRANSPORT INFORMATION

D.O.T.:

D.O.T. Proper Shipping Name: Not Currently Regulated

DOT Hazard Class: NA

DOT Subsidiary Risk: NA

DOT ID Number: NA

DOT Packing Group: NA

I.A.T.A

IATA Proper Shipping Name: Not Currently Regulated

IATA Hazard Class: NA

IATA Subsidiary Risk: NA

IATA ID Number: NA

IATA Packing Group: NA

I.C.A.O.:

I.C.A.O. Proper Shipping Name: Not Currently Regulated

ICAO Hazard Class: NA

ICAO Subsidiary Risk: NA

ICAO ID Number: NA

ICAO Packing Group: NA

I.M.O.:

I.M.O. Proper Shipping Name: Not Currently Regulated

I.M.O. Hazard Class: NA

I.M.O. Subsidiary Risk: NA

I.M.O. ID Number: NA

I.M.O. Packing Group: NA

SECTION 15. REGULATORY INFORMATION

U.S. Federal Regulations:

O.S.H.A.:

This product does not meet the criteria for a hazardous substance as defined in the Hazard Communication Standard. (29 CFR 1910.1200)

E.P.A.:

S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370): This product is not hazardous under 29 CFR.1910.1200 and therefore is not covered by Title III under SARA.

S.A.R.A. Title III Section 313 (40 CFR 372): This product does NOT contain any chemical subject to the reporting requirements of Section 313 of Title III of SARA.

EU Regulations:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Text with EEA relevance)

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP), amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance)

Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance)

Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

International Inventories:

EINECS/ELINCS: Complies.

TSCA: Complies.

DSL/NDL: Complies.

IECSC: Complies.

KECL: Complies.

AICS: Complies.

PICCS: Complies.

SECTION 16. OTHER INFORMATION

Intended Use: Calibration of pH electrodes.

Date of SDS Preparation: January 19, 2026

References:

29 CFR 1900 - 1910 (Code of Federal Regulations - Labor)

Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. TLV's

Threshold Limit Values and Biological Exposure Indices

Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the REACH

Regulation (EC) No 1272/2008 of the European Parliament and of the Council on CLP Regulation

Commission Regulation (EU) No 453/2010 of the Council on the REACH

Commission Regulation (EU) 2015/830 of the REACH

Legend:

NA - Not Applicable

w/w - weight/weight

ND - Not Determined

w/v - weight/volume

NV - Not Available

v/v - volume/volume

CLP - European Regulation on classification, labelling and packaging of substances and mixtures

REACH - European Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

AICS - Australian Inventory of Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

USER RESPONSIBILITY:

Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

This information was compiled from current manufacturer's SDS's of the component parts of the product.

Disclaimer: The Manufacturer believes that the information contained in the Material Safety Data Sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily all inclusive nor fully adequate in every circumstance. Also, the suggestions should not be confused with, nor followed in violation of applicable laws, regulations, rules or insurance requirements.