

Issue Date 12-Jan-2016

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Version 1

1. IDENTIFICATION

Product identifier

Product Name pH

Other means of identification

Product Code PEI-083
UN/ID no. Final product is not regulated.
Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use For Laboratory Use Only.
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

NSI Lab Solutions, Inc.
 7212 ACC Blvd.
 Raleigh, NC 27617

Emergency telephone number

Company Phone Number 800-234-7837
FAX 919-789-3019
Website www.nsilabsolutions.com
E-mail address nsi@nsilabsolutions.com
Emergency Telephone 919-349-7322

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This Safety Data Sheet covers a wide range of pH values and may be considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) at some of those pH values.

| | |
|-----------------------|-------------|
| Reproductive toxicity | Category 1B |
|-----------------------|-------------|

Label elements

Emergency Overview

Danger

Hazard statements

H360: May damage fertility or the unborn child



The product contains no substances which at their given concentration, are considered to be hazardous to health.

Appearance No information available

Physical state Liquid

Odor No information available

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Not applicable

Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

This Safety Data Sheet covers a wide range of pH values and may be considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) at some of those pH values.

| Chemical Name | CAS No. | Weight-% |
|--------------------------------|-----------|----------|
| Water | 7732-18-5 | 90-98 |
| Potassium hydrogen phthalate | 877-24-7 | 0-1.5 |
| Potassium phosphate monobasic | 7778-77-0 | 0-0.7 |
| Sodium tetraborate decahydrate | 1303-96-4 | 0-0.5 |
| Sodium hydroxide | 1310-73-2 | 0-0.2 |
| Hydrochloric acid | 7647-01-0 | 0-0.02 |

Refer to Certificate of Analysis for exact percentage concentration.

4. FIRST AID MEASURES

Description of first aid measures

| | |
|---------------------|--|
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. |
| Skin contact | Wash skin with soap and water. |
| Inhalation | Remove to fresh air. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. |

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---|---|-------------------------------------|----------------------------|
| Water 7732-18-5 | - | - | - |
| Potassium hydrogen phthalate 877-24-7 | - | - | - |
| Potassium phosphate monobasic 7778-77-0 | - | - | - |
| Sodium tetraborate decahydrate 1303-96-4 | STEL: 6 mg/m ³ inhalable fraction TWA: 2 mg/m ³ inhalable fraction | (vacated) TWA: 10 mg/m ³ | TWA: 5 mg/m ³ |
| Sodium hydroxide | Ceiling: 2 mg/m ³ | TWA: 2 mg/m ³ | IDLH: 10 mg/m ³ |

| | | | |
|--------------------------------|----------------|--|--|
| 1310-73-2 | | (vacated) Ceiling: 2 mg/m ³ | Ceiling: 2 mg/m ³ |
| Hydrochloric acid 7647-01-0 | Ceiling: 2 ppm | (vacated) Ceiling: 5 ppm (vacated) Ceiling: 7 mg/m ³ Ceiling: 5 ppm Ceiling: 7 mg/m ³ | IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m ³ |

Appropriate engineering controls

Engineering Controls Showers
 Eyewash stations
 Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection No special technical protective measures are necessary.

Skin and body protection No special technical protective measures are necessary.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

| | | | |
|-----------------------|--------------------------|-----------------------|--------------------------|
| Physical state | Liquid | Odor | No information available |
| Appearance | No information available | Odor threshold | No information available |
| Color | No information available | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---------------------------------------|--------------------------|-------------------------|
| pH | No information available | |
| Melting point / freezing point | No information available | |
| Boiling point / boiling range | No information available | |
| Flash point | No information available | |
| Evaporation rate | No information available | |
| Flammability (solid, gas) | No information available | |
| Flammability Limit in Air | | |
| Upper flammability limit: | No information available | |
| Lower flammability limit: | No information available | |
| Vapor pressure | No information available | |
| Vapor density | No information available | |
| Relative density | No information available | |
| Water solubility | No information available | |
| Solubility in other solvents | No information available | |
| Partition coefficient | No information available | |
| Autoignition temperature | No information available | |
| Decomposition temperature | No information available | |
| Kinematic viscosity | No information available | |
| Dynamic viscosity | No information available | |
| Explosive properties | No information available | |
| Oxidizing properties | No information available | |

Other Information

| | |
|-------------------------|--------------------------|
| Softening point | No information available |
| Molecular weight | No information available |
| VOC Content (%) | No information available |
| Density | No information available |
| Bulk density | No information available |

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

| | |
|----------------------------|--------------------|
| Product Information | No data available |
| Inhalation | No data available. |
| Eye contact | No data available. |
| Skin contact | No data available. |
| Ingestion | No data available. |

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---|--------------------------|-------------------------|
| Water 7732-18-5 | > 90 mL/kg (Rat) | - | - |
| Potassium hydrogen phthalate 877-24-7 | > 3200 mg/kg (Rat) | - | - |
| Potassium phosphate monobasic 7778-77-0 | - | > 4640 mg/kg (Rabbit) | - |
| Sodium tetraborate decahydrate 1303-96-4 | = 3493 mg/kg (Rat) = 2660 mg/kg (Rat) | > 10000 mg/kg (Rabbit) | - |
| Sodium hydroxide 1310-73-2 | - | = 1350 mg/kg (Rabbit) | - |
| Hydrochloric acid 7647-01-0 | 238 - 277 mg/kg (Rat) | > 5010 mg/kg (Rabbit) | = 1.68 mg/L (Rat) 1 h |

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|---------------------------------|---------------------------|
| Sensitization | No information available. |
| Germ cell mutagenicity | No information available. |
| Carcinogenicity | No information available. |
| Reproductive toxicity | No information available. |
| STOT - single exposure | No information available. |
| STOT - repeated exposure | No information available. |
| Aspiration hazard | No information available. |

Numerical measures of toxicity - Product Information

12. ECOLOGICAL INFORMATION

Ecotoxicity

2.7 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

| Chemical Name | Algae/aquatic plants | Fish | Crustacea |
|---|----------------------|--|-----------|
| Water 7732-18-5 | - | - | - |
| Potassium hydrogen phthalate 877-24-7 | - | - | - |
| Potassium phosphate monobasic 7778-77-0 | - | - | - |
| Sodium tetraborate decahydrate 1303-96-4 | - | - | - |
| Sodium hydroxide 1310-73-2 | - | 45.4: 96 h Oncorhynchus mykiss mg/L LC50 static | - |
| Hydrochloric acid 7647-01-0 | - | 282: 96 h Gambusia affinis mg/L LC50 static | - |

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

| Chemical Name | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|---|------|--------------------------|------------------------|------------------------|
| Water 7732-18-5 | - | - | - | - |
| Potassium hydrogen phthalate 877-24-7 | - | - | - | - |
| Potassium phosphate monobasic 7778-77-0 | - | - | - | - |
| Sodium tetraborate decahydrate 1303-96-4 | - | - | - | - |
| Sodium hydroxide 1310-73-2 | - | - | - | - |
| Hydrochloric acid 7647-01-0 | - | - | - | - |

| Chemical Name | California Hazardous Waste Status |
|---|-----------------------------------|
| Water 7732-18-5 | - |
| Potassium hydrogen phthalate 877-24-7 | - |
| Potassium phosphate monobasic 7778-77-0 | - |
| Sodium tetraborate decahydrate 1303-96-4 | Toxic |
| Sodium hydroxide 1310-73-2 | Toxic Corrosive |
| Hydrochloric acid 7647-01-0 | - |

14. TRANSPORT INFORMATION

DOT This standard is packaged and shipped in accordance with 49 CFR 173.4: Hazardous Materials in Excepted Quantities.
UN/ID no. Final product is not regulated.

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

| | |
|----------------------|----------|
| TSCA | Complies |
| DSL/NDSL | Complies |
| EINECS/ELINCS | Complies |
| ENCS | Complies |
| IECSC | Complies |
| KECL | Complies |
| PICCS | Complies |
| AICS | Complies |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

| | |
|--|----|
| Acute health hazard | No |
| Chronic Health Hazard | No |
| Fire hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

This product, as supplied, does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

| | | | | |
|-----------------------------------|----------------------------------|----------------|--------------------|------------------------------------|
| NFPA | Health hazards 0 | Flammability 0 | Instability 0 | Physical and Chemical Properties - |
| HMIS | Health hazards 1* | Flammability 0 | Physical hazards 0 | Personal protection X |
| <i>Chronic Hazard Star Legend</i> | <i>* = Chronic Health Hazard</i> | | | |

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Revision Note
No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet