SECTION 1. Identification

Product identifier
- Product number: BX1651
- Product name: Buffer pH 1.0, Clear

Relevant identified uses of the substance or mixture and uses advised against
- Identified uses: Reagent for analysis

Details of the supplier of the safety data sheet
- Company: EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821, United States of America | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)

Emergency telephone: 800-424-9300 CHEMTREC (USA)
+1-703-527-3887 CHEMTREC (International)
24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS Classification
- Skin irritation, Category 2, H315
- Eye irritation, Category 2A, H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

Hazard pictograms

Signal Word
Warning

Hazard Statements
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.

Precautionary Statements
- P264 Wash skin thoroughly after handling.
P280  Wear protective gloves/ eye protection/ face protection.
P302 + P352  IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321  Specific treatment (see supplemental first aid instructions on this label).
P332 + P313  If skin irritation occurs: Get medical advice/ attention.
P337 + P313  If eye irritation persists: Get medical advice/ attention.
P362  Take off contaminated clothing and wash before reuse.

Other hazards
None known.

SECTION  3. Composition/information on ingredients
Chemical nature  Mixture

Hazardous ingredients

Chemical Name ( Concentration)
CAS-No.
hydrochloric acid ( >= 1 % - < 5 %)
7647-01-0

Exact percentages are being withheld as a trade secret.

SECTION  4. First aid measures
Description of first-aid measures

Inhalation
After inhalation: fresh air.

Skin contact
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Eye contact
After eye contact: rinse out with plenty of water. Call in ophthalmologist.

Ingestion
After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed
irritant effects

Indication of any immediate medical attention and special treatment needed
No information available.

SECTION  5. Fire-fighting measures
Extinguishing media
Suitable extinguishing media
Water, Foam, Carbon dioxide (CO2), Dry powder
Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture
Mixture with combustible ingredients.
Development of hazardous combustion gases or vapors possible in the event of fire.
Vapors are heavier than air and may spread along floors.

Advice for firefighters
Special protective equipment for fire-fighters
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
In the event of fire, wear self-contained breathing apparatus.

Further information
Suppress (knock down) gases/vapors/mists with a water spray jet.

SECTION 6. Accidental release measures
Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:
Protective equipment see section 8.

Environmental precautions
No special precautionary measures necessary.

Methods and materials for containment and cleaning up
Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

SECTION 7. Handling and storage
Precautions for safe handling
Observe label precautions.

Conditions for safe storage, including any incompatibilities
Tightly closed. No metal containers.
Store at room temperature.
SECTION 8. Exposure controls/personal protection

Exposure limit(s)

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Basis</th>
<th>Value</th>
<th>Threshold limits</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrochloric acid</td>
<td>ACGIH</td>
<td>Ceiling Limit Value: 2 ppm</td>
<td>2 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NIOSH/GUIDE</td>
<td>Ceiling Limit Value and Time Period (if specified): 5 ppm 7 mg/m³</td>
<td>5 ppm 7 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OSHA_TRANS</td>
<td>Ceiling Limit Value: 5 ppm 7 mg/m³</td>
<td>5 ppm 7 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Z1A</td>
<td>Ceiling Limit Value: 5 ppm 7 mg/m³</td>
<td>5 ppm 7 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

**Engineering measures**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

**Individual protection measures**

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

**Hygiene measures**

Immediately change contaminated clothing. Apply skin-protective barrier cream. Wash hands and face after working with substance.

Change contaminated clothing. Wash hands after working with substance.

**Eye/face protection**

Safety glasses

**Hand protection**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Other protective equipment:**

protective clothing

**Respiratory protection**

required when vapors/aerosols are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9. Physical and chemical properties

**Physical state**

liquid

**Color**

colorless
Odor | No strong odor known.
Odor Threshold | No information available.

pH | No information available.
Melting point | No information available.
Boiling point | No information available.
Flash point | No information available.
Evaporation rate | No information available.
Flammability (solid, gas) | No information available.
Lower explosion limit | No information available.
Upper explosion limit | No information available.
Vapor pressure | No information available.
Relative vapor density | No information available.

Density | No information available.
Relative density | No information available.
Water solubility | No information available.
Partition coefficient: n-octanol/water | No information available.
Autoignition temperature | No information available.

Decomposition temperature | No information available.
Viscosity, dynamic | No information available.
Explosive properties | Not classified as explosive.
Oxidizing properties | none

___

SECTION 10. Stability and reactivity

Reactivity
See below

Chemical stability
The product is chemically stable under standard ambient conditions (room temperature).

Possibility of hazardous reactions
Violent reactions possible with:
The generally known reaction partners of water.

Conditions to avoid
no information available

Incompatible materials
Metals

Hazardous decomposition products
in the event of fire: See section 5.

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure
Eye contact, Skin contact

Target Organs
Eyes
Skin
Respiratory system
Cornea

Acute inhalation toxicity

Symptoms: Possible damages; mucosal irritations

Skin irritation
Mixture causes skin irritation.

Eye irritation
Mixture causes serious eye irritation.

Specific target organ systemic toxicity - single exposure
The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard
Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Further information
Other dangerous properties can not be excluded.
Handle in accordance with good industrial hygiene and safety practice.

Ingredients

hydrochloric acid
No information available.

SECTION 12. Ecological information

Ecotoxicity
No information available.

Persistence and degradability
No information available.

Bioaccumulative potential
No information available.

Mobility in soil
No information available.

Additional ecological information
Discharge into the environment must be avoided.

Ingredients

hydrochloric acid

Substance does not meets the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.
SECTION 14. Transport information

Land transport (DOT)
UN number UN 1789
Proper shipping name HYDROCHLORIC ACID
Class 8
Packing group III
Environmentally hazardous --

Air transport (IATA)
UN number UN 1789
Proper shipping name HYDROCHLORIC ACID
Class 8
Packing group III
Environmentally hazardous --
Special precautions for user no

Sea transport (IMDG)
UN number UN 1789
Proper shipping name HYDROCHLORIC ACID
Class 8
Packing group III
Environmentally hazardous --
Special precautions for user yes
EmS F-A S-B

SECTION 15. Regulatory information

United States of America

SARA 313
The following components are subject to reporting levels established by SARA Title III, Section 313:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>UN number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrochloric acid</td>
<td>7647-01-0</td>
<td>1.11 %</td>
</tr>
</tbody>
</table>

SARA 302
The following components are subject to reporting levels established by SARA Title III, Section 302:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>UN number</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrochloric acid</td>
<td>7647-01-0</td>
</tr>
</tbody>
</table>
Clean Water Act
The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

*Ingredients*
- hydrochloric acid

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

*Ingredients*
- hydrochloric acid

DEA List I
- Not listed

DEA List II
- Listed
  - *Ingredients*
    - hydrochloric acid 7647-01-0

US State Regulations

Massachusetts Right To Know
- *Ingredients*
  - hydrochloric acid
  - sodium 2-biphenylate

Pennsylvania Right To Know
- *Ingredients*
  - hydrochloric acid

New Jersey Right To Know
- *Ingredients*
  - hydrochloric acid

California Prop 65 Components
WARNING: this product contains a chemical known in the State of California to cause cancer.

*Ingredients*
- sodium 2-biphenylate

Notification status

- **TSCA:** All components of the product are listed in the TSCA-inventory.
- **DSL:** All components of this product are on the Canadian DSL.

SECTION 16. Other information

Training advice
Provide adequate information, instruction and training for operators.

Full text of H-Statements referred to under sections 2 and 3.

- **H315** Causes skin irritation.
- **H319** Causes serious eye irritation.

Key or legend to abbreviations and acronyms used in the safety data sheet
Used abbreviations and acronyms can be looked up at www.wikipedia.org.
The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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