

Part of Thermo Fisher Scientific

SAFETY DATA SHEET

Creation Date 09-Dec-2009

Revision Date 07-Apr-2014

Revision Number 1

| 1. Identification | | | | |
|--|---|--|--|--|
| Product Name | Buffer Solution pH 7.0 (Color-Coded Yellow) | | | |
| Cat No. : | SB107-4, SB107-500, SB107-20; SB10720LC | | | |
| Synonyms | None. | | | |
| Recommended Use | Laboratory chemicals. | | | |
| Uses advised against Details of the supplier of the safety | No Information available afety data sheet | | | |
| Company Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 | Emergency Telephone Number CHEMTREC®, Inside the USA: 800-424-9300 CHEMTREC®, Outside the USA: 001-703-527-3887 | | | |

2. Hazard(s) identification

Classification

Tel: (201) 796-7100

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Based on available data, the classification criteria are not met

Label Elements

None required

Hazards not otherwise classified (HNOC) None identified

3. Composition / information on ingredients

| Component | CAS-No | Weight % | |
|--------------------------------|-----------|------------|--|
| Water | 7732-18-5 | 99.18 | |
| Dihydrogen potassium phosphate | 7778-77-0 | 0.7 | |
| Sodium hydroxide | 1310-73-2 | 0.1 | |
| FD&C yellow No. 5 | 1934-21-0 | 0.0 - 0.02 | |

4. First-aid measures

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

| | Obtain medical attention. |
|---|---|
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur. |
| Inhalation | Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur. |
| Ingestion | Do not induce vomiting. Obtain medical attention. |
| Most important symptoms/effects Notes to Physician | No information available. Treat symptomatically |

5. Fire-fighting measures

| Suitable Extinguishing Media | Substance is nonflammable; use agent most appropriate to extinguish surrounding fire. |
|--|---|
| Unsuitable Extinguishing Media | No information available |
| Flash Point Method - | Not applicable No information available |
| Autoignition Temperature Explosion Limits | No information available |
| Upper | No data available |
| Lower | No data available |
| Sensitivity to Mechanical Impact | No information available |
| Sensitivity to Static Discharge | No information available |
| | |

Specific Hazards Arising from the Chemical None known.

Hazardous Combustion Products

None known

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.

NFPA

| Health 1 | Flammability Instability 0 0 | | Physical hazards N/A | | | |
|--------------------------------|---|------------------------------|------------------------------|--|--|--|
| 6. Accidental release measures | | | | | | |
| Personal Precautions | Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eves and clothing. | | | | | |
| Environmental Precautions | Should not be released into information. | the environment. See Sectior | 12 for additional ecological | | | |

Methods for Containment and Clean Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Up

| 7. Handling and storage | | | |
|--|--|--|--|
| Handling Wear personal protective equipment. Ensure adequate ventilation. Avoid contact vertilation. wear personal protective equipment. Ensure adequate ventilation. Avoid contact vertilation. | | | |
| Storage | Keep containers tightly closed in a dry, cool and well-ventilated place. | | |

8. Exposure controls / personal protection

Exposure Guidelines

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH | |
|------------------|------------------------------|---|------------------------------|--|
| Sodium hydroxide | Ceiling: 2 mg/m ³ | (Vacated) Ceiling: 2 mg/m ³ | IDLH: 10 mg/m ³ | |
| | | TWA: 2 mg/m ³ | Ceiling: 2 mg/m ³ | |
| | | | | |
| Component | Quebec | Mexico OEL (TWA) | Ontario TWAEV | |
| Sodium hydroxide | Ceiling: 2 mg/m ³ | Ceiling: 2 mg/m ³ CEV: 2 mg/m ³ | | |

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

| Engineering Measures | Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. |
|-------------------------------|---|
| Personal Protective Equipment | |
| Eye/face Protection | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. |
| Skin and body protection | Wear appropriate protective gloves and clothing to prevent skin exposure. |
| Respiratory Protection | Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |
| Hygiene Measures | Handle in accordance with good industrial hygiene and safety practice. |

| 9. Physical and chemical properties | | | |
|--|--------------------------|--|--|
| Physical State | Liquid | | |
| Appearance | Yellow | | |
| Odor | Odorless | | |
| Odor Threshold | No information available | | |
| рН | 7.00 @ 25°C | | |
| Melting Point/Range | 0 °C / 32 °F | | |
| Boiling Point/Range | 100 °C / 212 °F | | |
| Flash Point | Not applicable | | |
| Evaporation Rate | No information available | | |
| Flammability (solid,gas) | No information available | | |
| Flammability or explosive limits | | | |
| Upper | No data available | | |
| Lower | No data available | | |
| Vapor Pressure | 760 mmHg @ 20 °C | | |
| Vapor Density | No information available | | |
| Relative Density | 1.0 | | |
| Solubility | Soluble in water | | |
| Partition coefficient; n-octanol/water | No data available | | |
| Autoignition Temperature | No information available | | |
| Decomposition Temperature | No information available | | |
| Viscosity | No information available | | |
| | | | |

10. Stability and reactivity

Reactive Hazard

Stability

None known, based on information available

Stable under normal conditions.

| 11. Toxicological information | | | |
|---|--|--|--|
| Hazardous Reactions None under normal processing. | | | |
| Hazardous Polymerization | Hazardous polymerization does not occur. | | |
| Hazardous Decomposition Products None known | | | |
| Incompatible Materials | None known | | |
| Conditions to Avoid | None known. | | |
| | | | |

Acute Toxicity

| Product Information Component Information | No acute toxicity information is available for this product | | | | | | |
|--|---|--|------------|--|--|--|--|
| Component | LD50 Oral | LD50 Oral LD50 Dermal LC50 Inhalation | | | | | |
| Dihydrogen potassium phosphate | Not listed | >4640 mg/kg (Rabbit) | Not listed | | | | |
| Sodium hydroxide | Not listed | Not listed 1350 mg/kg (Rabbit) Not listed | | | | | |
| Toxicologically Synergistic | No information available | | | | | | |
| Products Delayed and immediate effects as well as chronic effects from short and long-term exposure | | | | | | | |
| Irritation | No information available | | | | | | |
| Sensitization | No information available | | | | | | |

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|--|-----------|------------|------------|------------|------------|------------|
| Water | 7732-18-5 | Not listed |
| Dihydrogen potassium phosphate | 7778-77-0 | Not listed |
| Sodium hydroxide | 1310-73-2 | Not listed |
| FD&C yellow No. 5 | 1934-21-0 | Not listed |
| Mutagenic Effects No information available | | | | | | |

| Reproductive Effects | No information available. |
|--|-----------------------------------|
| Developmental Effects | No information available. |
| Teratogenicity | No information available. |
| STOT - single exposure STOT - repeated exposure | None known None known |
| Aspiration hazard | No information available |
| Symptoms / effects,both acute and | No information available |
| delayed Endocrine Disruptor Information | No information available |
| Other Adverse Effects | The toxicological properties have |

The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

12. Ecological information

Ecotoxicity

Do not empty into drains.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|------------------|------------------|---------------------|----------|------------|
| Sodium hydroxide | - | 45.4 mg/L LC50 96 h | - | - |

| Persistence and Degradability | No information available |
|-------------------------------|---------------------------|
| Bioaccumulation/ Accumulation | No information available. |
| Mobility | No information available. |

| 13. Disposal considerations | | | | |
|-----------------------------|---|--|--|--|
| Waste Disposal Methods | Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification. | | | |

14. Transport information

| DOT | Not regulated |
|----------|---------------|
| TDG | Not regulated |
| IATA | Not regulated |
| IMDG/IMO | Not regulated |
| | |

15. Regulatory information

International Inventories

| Component | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|--------------------------------|------|-----|------|-----------|--------|-----|-------|------|------|-------|------|
| Water | Х | Х | - | 231-791-2 | - | | Х | - | Х | Х | Х |
| Dihydrogen potassium phosphate | Х | Х | - | 231-913-4 | - | | Х | Х | Х | Х | Х |
| Sodium hydroxide | Х | Х | - | 215-185-5 | - | | Х | Х | Х | Х | Х |
| FD&C yellow No. 5 | Х | Х | - | 217-699-5 | - | | Х | Х | Х | Х | Х |

Legend: X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

| TSCA 12(b) | Not applicable |
|------------|----------------|
|------------|----------------|

SARA 313 Not applicable

| SARA 311/312 Hazardous Categorization | |
|---------------------------------------|----|
| Acute Health Hazard | No |
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

Clean Water Act

| Component | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|------------------|-------------------------------|--------------------------------|------------------------|---------------------------|
| Sodium hydroxide | Х | 1000 lb | - | - |

Clean Air Act

Not applicable

OSHA Occupational Safety and Health Administration Not applicable

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Component | | Hazardous Substances RQs | CERCLA EHS RQs |
|---------------------------|--------------|---|----------------|
| Sodium hydroxide | | 1000 lb | - |
| California Proposition 65 | This product | does not contain any Proposition 65 che | emicals |

State Right-to-Know

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|------------------|---------------|------------|--------------|----------|--------------|
| Water | - | - | Х | - | - |
| Sodium hydroxide | Х | Х | Х | - | Х |

U.S. Department of Transportation

| Reportable Quantity (RQ): | Y |
|-----------------------------|---|
| DOT Marine Pollutant | Ν |
| DOT Severe Marine Pollutant | Ν |

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade

No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

| WHMIS | Hazard | Class |
|----------|---------|--------------|
| VITIVIIS | Παζαι μ | UIA33 |

Non-controlled

| 16. Other information | | |
|--|---|--|
| Prepared By | Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com | |
| Creation Date Revision Date Print Date Revision Summary | 09-Dec-2009 07-Apr-2014 07-Apr-2014 This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) | |

Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of SDS