

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification**Product identifier**

Product name 10x Wash Buffer II

Recommended use of the chemical and restrictions on use

Application For research and development purposes only.

Uses advised against No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Manufacturer Integrated DNA Technologies

1710 Commercial Park

Coralville Iowa, 52241

Emergency telephone numbers ChemTrec 800-424-9300

Chemtrec should only be called in a chemical emergency (spill, leak, fire, exposure, or accident)

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

Composition comments The exact percentage is withheld as a trade secret in accordance with 29 CFR 1910.1200.

4. First-aid measures

Description of first aid measures

General information If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.

Inhalation No specific recommendations. If throat irritation or coughing persists, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if any discomfort continues.

Ingestion No specific recommendations. If throat irritation or coughing persists, proceed as follows. Rinse mouth. Get medical attention if any discomfort continues.

Skin Contact No specific recommendations. Rinse with water. Get medical attention if any discomfort

| | |
|--|---|
| | continues. |
| Eye contact | Remove any contact lenses and open eyelids wide apart. Rinse with water. Get medical attention if any discomfort continues. |
| Protection of first aiders | Use protective equipment appropriate for surrounding materials. |
| Most important symptoms and effects, both acute and delayed | |
| General information | The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| Inhalation | No specific symptoms known. Spray/mists may cause respiratory tract irritation. |
| Ingestion | No specific symptoms known. May cause discomfort if swallowed. |
| Skin contact | No specific symptoms known. May cause discomfort. |
| Eye contact | No specific symptoms known. May be slightly irritating to eyes. |
| Indication of immediate medical attention and special treatment needed | |
| Notes for the doctor | Treat symptomatically. |
| Specific treatments | No special treatment required. |

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

Advice for firefighters

Protective actions during firefighting

Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak.

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions No specific recommendations. For personal protection, see Section 8.

Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground.

Methods and material for containment and cleaning up

Methods for cleaning up Reuse or recycle products wherever possible. Absorb spillage to prevent material damage. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of contents/container in accordance with national regulations.

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Avoid the formation of mists.

Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage precautions Store away from incompatible materials (see Section 10). No specific recommendations.

Storage class Unspecified storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure Controls/personal protection

Trisodium citrate dihydrate (CAS: 6132-04-3)

Ingredient comments No exposure limits known for ingredient(s).

Exposure controls

Protective equipment



Appropriate engineering controls No specific ventilation requirements.

Eye/face protection Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.

Hand protection Wear protective gloves.

Other skin and body protection Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

Respiratory protection Respiratory protection not required.

Environmental exposure controls Not regarded as dangerous for the environment.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

| | |
|--|--------------------------------------|
| Appearance | Liquid. |
| Color | Colorless. |
| Odor | Odorless. |
| Odor threshold | Not available. |
| pH | Not available. |
| Melting point | Not available. |
| Initial boiling point and range | Not available. |
| Flash point | No specific test data are available. |
| Evaporation rate | Not available. |
| Evaporation factor | Not available. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | Not available. |
| Other flammability | Not available. |
| Vapor pressure | Not available. |
| Vapor density | Not available. |
| Relative density | Not available. |
| Bulk density | Not available. |
| Solubility(ies) | Not available. |
| Partition coefficient | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition Temperature | Not available. |
| Viscosity | Not available. |
| Explosive properties | Not considered to be explosive. |
| Explosive under the influence of a flame | Not available. |
| Oxidizing properties | Not available. |
| Other information | None. |

10. Stability and reactivity

| | |
|------------------------------------|---|
| Reactivity | See the other subsections of this section for further details. |
| Stability | Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions. |
| Possibility of hazardous reactions | No potentially hazardous reactions known. |
| Conditions to avoid | There are no known conditions that are likely to result in a hazardous situation. |
| Materials to avoid | No specific material or group of materials is likely to react with the product to produce a hazardous situation. |
| Hazardous decomposition products | Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors. |

11. Toxicological information

Information on toxicological effects

| | |
|--|---|
| Toxicological effects | Not regarded as a health hazard under current legislation. |
| Acute toxicity - oral | |
| Notes (oral LD ₅₀) | Based on available data the classification criteria are not met. |
| Acute toxicity - dermal | |
| Notes (dermal LD ₅₀) | Based on available data the classification criteria are not met. |
| Acute toxicity - inhalation | |
| Notes (inhalation LC ₅₀) | Based on available data the classification criteria are not met. |
| Skin corrosion/irritation | |
| Animal data | Based on available data the classification criteria are not met. |
| Serious eye damage/irritation | |
| Serious eye damage/irritation | Based on available data the classification criteria are not met. |
| Respiratory sensitization | |
| Respiratory sensitization | Based on available data the classification criteria are not met. |
| Skin sensitization | |
| Skin sensitization | Based on available data the classification criteria are not met. |
| Germ cell mutagenicity | |
| Genotoxicity - in vitro | Based on available data the classification criteria are not met. |
| Carcinogenicity | |
| Carcinogenicity | Based on available data the classification criteria are not met. |
| IARC carcinogenicity | None of the ingredients are listed or exempt. |
| Reproductive toxicity | |
| Reproductive toxicity - fertility | Based on available data the classification criteria are not met. |
| Reproductive toxicity - development | Based on available data the classification criteria are not met. |
| Specific target organ toxicity - single exposure | |
| STOT - single exposure | Not classified as a specific target organ toxicant after a single exposure. |
| Target organs | Respiratory system, lungs |
| Specific target organ toxicity - repeated exposure | |
| STOT - repeated exposure | Not classified as a specific target organ toxicant after repeated exposure. |
| Aspiration hazard | |
| Aspiration hazard | Based on available data the classification criteria are not met. |
| General information | No specific health hazards known. The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| Inhalation | No specific symptoms known. Spray/mists may cause respiratory tract irritation. |
| Ingestion | No specific symptoms known. May cause discomfort if swallowed. |
| Skin Contact | No specific symptoms known. May cause discomfort. |
| Eye contact | No specific symptoms known. May be slightly irritating to eyes. |
| Route of exposure | Ingestion Inhalation Skin and/or eye contact |



Title: SDS – 10x Wash Buffer II

Doc #: SDS-011
Rev: 1
Date: 03/28/2019
Page #: 6 of 8

Target Organs No specific target organs known.

12. Ecological Information

| | |
|-------------------------------|--|
| Ecotoxicity | Not regarded as dangerous for the environment. |
| Toxicity | Based on available data the classification criteria are not met. |
| Persistence and degradability | |
| Persistence and degradability | The degradability of the product is not known. |
| Bioaccumulative potential | |
| Bio-Accumulative Potential | No data available on bioaccumulation. |
| Partition coefficient | Not available. |
| Mobility in soil | |
| Mobility | No data available. |
| Other adverse effects | |
| Other adverse effects | None known. |

13. Disposal considerations

Waste treatment methods

General information The generation of waste should be minimized or avoided wherever possible. This material and its container must be disposed of in a safe way.

Disposal methods Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor.

Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

UN Number

UN No. (DOT) Not applicable.

UN proper shipping name

Proper shipping name (DOT) Not applicable.

Transport hazard class(es)

DOT transport labels

 No transport warning sign required.

Packing group

DOT packing group Not applicable.

Special precautions for user

DOT reportable quantity Not applicable.

DOT TIH Zone Not applicable.

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

None of the ingredients are listed or exempt.

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

FDA - Essential Chemical

None of the ingredients are listed or exempt.

FDA - Precursor Chemical

None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

None of the ingredients are listed or exempt.

Rhode Island "Right To Know" List

None of the ingredients are listed or exempt.

Minnesota "Right To Know" List

None of the ingredients are listed or exempt.

New Jersey "Right To Know" List

The following ingredients are listed or exempt:

Trisodium citrate dihydrate

Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

Trisodium citrate dihydrate

Inventories US - TSCA

The following ingredients are listed or exempt:

water

US - TSCA 12(b) Export Notification

None of the ingredients are listed or exempt.

16. Other information

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity

Eye Dam. = Serious eye damage

Skin Corr. = Skin corrosion

STOT SE = Specific target organ toxicity-single exposure

Training advice

Only trained personnel should use this material.

Disclaimer/Statement of Liability: Disclaimer/Statement of Liability: The information contained herein is believed to be accurate but is not warranted to be so. Data and calculation are based on information furnished by the manufacturers of the components of the product. Uses are advised to confirm in advance of need that information is current, applicable and suited to the circumstance of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in section 1.

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Swift Biosciences, Inc shall not be held liable for any damage resulting from handling or from contact with the above product.

This material is sold for research and development purposes only. It is not for any human or animal therapeutic or clinical diagnostic use. It is not intended for food, drug, household, agricultural, or cosmetic use. An individual technically qualified to handle potentially hazardous chemicals must supervise the use of this material. The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since Swift Biosciences cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.