



SAFETY DATA SHEET

xGen® 10x Wash 2 Buffer

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

1. Identification

Product identifier

Product name xGen® 10x Wash 2 Buffer

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
custcare@idtdna.com

Emergency telephone number

Emergency telephone ChemTrec 800-424-9300

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.

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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

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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.

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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	

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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
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.

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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.

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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.

Revision comments

Contact legal for statement

Revision date

12/11/2017

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Revision	4
SDS No.	4587