SAFETY DATA SHEET
xGen® 10x Stringent Buffer

1. Identification

Product identifier
Product name xGen® 10x Stringent 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
Ethylenediaminetetraacetic acid disodium salt 1-5%
CAS number: 6381-92-6

Classification
Acute Tox. 4 - H302
Skin Irrit. 2 - H315
Eye Irrit. 2A - H319

The full text for all hazard statements is displayed in Section 16.

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
xGen® 10x Stringent Buffer

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. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

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
Avoid discharge into drains or watercourses or onto the ground.
**xGen® 10x Stringent Buffer**

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**

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

**Storage precautions**

Chemical storage.

**Specific end uses(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**

No specific eye protection required during normal use. Large Spillages: Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.

**Hand protection**

No specific hand protection recommended. Large Spillages: 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**

No specific recommendations. Provide adequate ventilation. Large Spillages: If ventilation is inadequate, suitable respiratory protection must be worn.

**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.
xGen® 10x Stringent Buffer

Odor threshold
pH
Melting point
Initial boiling point and range
Flash point
Evaporation rate
Evaporation factor
Flammability (solid, gas)
Upper/lower flammability or explosive limits
Other flammability
Vapor pressure
Vapor density
Relative density
Bulk density
Solubility(ies)
Partition coefficient
Auto-ignition temperature
Decomposition Temperature
Viscosity
Explosive properties
Explosive under the influence of a flame
Oxidizing properties
Other information

10. Stability and reactivity

Reactivity
Stability
Possibility of hazardous reactions
Conditions to avoid
Materials to avoid
Hazardous decomposition products

11. Toxicological information

Information on toxicological effects
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Toxicological effects

- Not regarded as a health hazard under current legislation.

Acute toxicity - oral

Notes (oral LD₅₀)

- Based on available data the classification criteria are not met.

ATE oral (mg/kg)

- 24,509.8

Acute toxicity - dermal

Notes (dermal LD₅₀)

- Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀)

- 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

- Based on available data the classification criteria are not met.

Respiratory sensitization

- Based on available data the classification criteria are not met.

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

IARC carcinogenicity

- None of the ingredients are listed or exempt.

Reproductive toxicity

Reproductive toxicity - fertility

Reproductive toxicity - development

Specific target organ toxicity - single exposure

STOT - single exposure

- Not classified as a specific target organ toxicant after a single exposure.

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
xGen® 10x Stringent Buffer

Ecotoxicity
Not regarded as dangerous for the environment.

Toxicity
Based on available data the classification criteria are not met.

Persistence and degradability
The degradability of the product is not known.

Bioaccumulative potential
No data available on bioaccumulation.

Bio-Accumulative Potential
Not available.

Partition coefficient
None known.

Mobility in soil
No data available.

Mobility
No data available.

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.
xGen® 10x Stringent Buffer

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.

Revision comments
Contact legal for statement

Revision date
12/11/2017

Revision
4

SDS No.
4589

Hazard statements in full
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

The information in this safety data sheet is, to the best of our knowledge, correct as of the date it was issued. We do not guarantee that this safety data sheet includes all the information necessary for your intended use. You (the user) are responsible for determining whether this material or product is suitable for your particular purpose.