Material Safety Data Sheet

Version No.: 0.0(Enactment date: 2022-03-31)

ToxinCleanic Endotoxin Removal Kit

10X Regeneration buffer

1. Product And Company Information

A. Product Name : 10X Regeneration buffer

B. Recommended Use : For Research Use Only

C. Supply Information :

○ Company : Bioneer

○ Address : 8-11 Munpyeongseo-ro, Daedeok-gu, Daejeon 34302, Republic of Korea

○ Emergency telephone number : +82-42-930-8777

2. Product And Company Information

A. Risk-Hazard Classification	No classification information
B. Caution Items Including Preventative measures	
○ Pictogram	
○ Signal word	Not Applicable
○ Hazard statement(s)	Not Applicable
○ Precautionary statements	
Prevention	Not Applicable
Response	Not Applicable
Storage	Not Applicable
Disposal	Not Applicable
Sodium deoxycholate	
Heath	1
Fire	1
Reactivity	0
WATER	
Heath	0
Fire	0
Reactivity	0

3. Composition/Information on Ingredient

Sodium deoxycholate	Deoxycholic acid sodium salt	302-95-4	10
Water	Dihydrogen oxide	7732-18-5	90

4. First Aid Measure

A. Upon Eye contact	Rinse thoroughly with plenty of water for at least 20 minutes. Seek immediate medical attention.
B. Upon Skin Contact	Rinse thoroughly with plenty of water for at least 20 minutes. Remove contaminated clothing and shoes, and quarantine the contaminated region. Thoroughly clean clothing, shoes before reuse. Take medical action immediately.
C. Upon Inhalation	Seek immediate medical attention. Move to a place with a fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
D. Upon Ingestion	Do not give anything by mouth to an unconscious person. Seek immediate medical attention.
E. Other Cautions	Ensure that medical personnel are aware of the material(s) involved, and take precaution to protect themselves. Do not administer adrenaline or similar drugs as cardiac arrhythmias may result.

5. Fire-fighting Measures

A. Proper(Improper) Extinguishing Material	
	Small fire: dry sand, dry chemical, alcohol-resistant foam, water spray, regular foam, CO_2. Large fires: Water spray/mist, regular foam (appropriate extinguishing agent). High pressure water (appropriate extinguishing agent).
B. Specific Hazards from Chemicals	
	Can be ignited by heat, spark, flame. Container may explode on heating. Some can ride, but not easily ignite. May cause irritation and release poisonous gas in case of fire. Inhalation of the material may be harmful. Some fluids may cause dizziness, suffocation-inducing vapors.
C. Firefighting Protection and Precautions	
Sodium deoxycholate	Move container from the area if you can do it without risk. Some may be transported when hot. Leakage may cause contamination. Contact may cause burns to skin and eyes. Drill ditches for the disposal of fire water to prevent them from being scattered.

	Move container from the area if you can do it without risk. For tank fires, cool the container with excess water even after the fire is extinguished. During tank fires, if a high-pitched sound is emitted from the pressure release valve or the tank becomes discolored, retreat immediately. During tank fires, retreat from the tank consumed in flames.
WATER	For tank fires, cool the container with excess water even after fire is extinguished. During tank fires, if a high-pitched sound is emitted from the pressure release valve or the tank becomes discolored, retreat immediately. During tank fires, retreat from a tank consumed in flames. Water spread from the heated and exploded container may cause scald to the skin and eyes.

6. Accidental Release Measures

A. Measures and Protection	Remove all sources of ignition. If it is not dangerous, stop leaking. Take cautions on materials and conditions that should be avoided. Ventilate the contaminated area. Do not touch or walk through split material. Avoid formation of dust. Do not enter the space without proper respirator or until proper air (oxygen concentration 18 ~ 23.5%) is available.
B. Measures for Environmental Protection	Prevent entry into waterways, sewers, basements, and confined spaces.
C. Cleaning and Removal Measures	In case of small leakage, flush contaminated area with large amount of water. In case of small leakage, absorb with sand and non-combustible material and place in container. In case of large leakage, make a ditch away from liquid spills. Put spills into a clean, dry container with clean shovel, loosely closed, then transfer container from leak area. In case of powder leakage, cover with plastic sheet to prevent spread and keep dry.

7. Handling And Storage

A. Handling Precautions	Note the materials and conditions to avoid. Wash thoroughly after handling. Refer to appropriate engineering controls and recommended protective equipments when working. Note the high temperature. In case of material leakage, it can reduce the oxygen concentration in the air and cause suffocation in an enclosed space, so be careful not to spill.

	Check the oxygen concentration before entering the place because there is a risk of loss of consciousness or death due to oxygen deficiency at high concentration in the air. Be careful not to spill because there is a risk of serious suffocation in an enclosed place as the liquid evaporates rapidly and displaces air when material is spilled. Be careful not to spill because the hazardous concentration level of this gas is reached very quickly in the air when material is spilled. Do not spray as it can reach hazardous concentration level of air particles very quickly. Keep this temperature below 20℃ so that this material evaporates slowly and reaches hazardous concentration later. Evaporation at 20°C is negligible; a harmful concentration level of airborne particles can, however, be reached quickly. Do not spray because it will evaporate faster if sprayed.
B. Storage Precautions	Keep it tightly closed. Store in a cool, dry space. Be careful of materials and conditions to avoid.

8. Exposure Controls / Personal Protection

A. Chemical exposure standard, Biological exposure standard	
Domestic regulation	
Sodium deoxycholate	No information
Water	No information
ACGIH regulation	
Sodium deoxycholate	Not applicable
Water	No information
Biological exposure standard	
Sodium deoxycholate	Not applicable
Water	Not applicable
Other exposure standard	
Sodium deoxycholate	No information
Water	No information
B. Appropriate engineering controls	Use process isolation, local exhaust ventilation or keep air levels below exposure limit.
C. Personal protective equipment	Wear insulating gloves.
Respiratory protection	
Sodium deoxycholate	Wear a respiratory mask approved by KOSHA (Korea Occupation Safety Health Agency) for the physical and chemical properties of the particulate material to be exposed. For particulate material, the following respirator is recommended. - Filtering facepiece respiratory mask or filtering air respiratory mask (High efficiency particulate filter) or filtering facepiece respiratory mask with electric fan. (Dust, mist, filter media for fume)

Water	Wear a supplied air respiratory mask or self-contained respiratory mask in case of lack of oxygen (<19.6%) Wear a respiratory mask approved by KOSHA (Korea Occupation Safety Health Agency) for the physical and chemical properties of the gas/liquid to be exposed. For gas/liquid materials, the following respiratory mask is recommended -Insulated full-facepiece respiratory mask (For organic compounds(For acid gas in case of acid gas)) or Insulated half-facepiece respiratory mask (For organic compounds(For acid gas in case of acid gas)) or direct connected full-facepiece respiratory mask (For organic compounds(For acid gas in case of acid gas)) or half-facepiece respiratory mask (For organic compounds(For acid gas in case of acid gas)) or electric respiratory mask. Wear a supplied air respiratory mask or self-contained respiratory mask in case of lack of oxygen (<19.6%)
Eye protection	Wear breathable goggles to protect eyes against particulate material that may cause eye irritation or other health hazards. Install emergency washing facilities (shower type) and eyewash facilities in a location that is easily accessible to users. Wear closed goggles to protect eyes against organic material in gas that may cause eye irritation or other health hazards. Wear safety glasses or breathable goggles to protect eyes against organic material in vapor that may cause eye irritation or other health hazards. Wear breathable safety glasses to protect eyes against particulate material that may cause eye irritation or other health hazards. Wear closed safety glasses to protect eyes against organic material in gas that may cause eye irritation or other health hazards. Wear safety glasses or breathable safety glasses to protect eyes against organic material in vapor that may cause eye irritation or other health hazards. Wear the following safety glasses about organic material that may cause eye irritation or other health hazards. - Closed safety glasses in the case of organic material in gas - Safety glasses or breathable safety glasses in the case of organic material in vapor - breathable safety glasses in the case of particulate material.
Body protection	Wear protective gloves made of appropriate materials in consideration of the physical and chemical properties of chemical material. Wear protective clothes made of appropriate materials in consideration of the physical and chemical properties of chemical material.

A. Chemical Exposure Standards, Biological Exposure Standards Etc. : No information.

B. Proper Physical Management : No Information.

C. Personal Protection

○ Respiratory Protection : wear respiratory mask approved by KOSHA(Korea Occupation Safety Health Agency)

○ Eye Protection : wear Chemical Safety protective goggle or glasses approved by KOSHA(Korea Occupation Safety Health Agency)

○ Hand Protection : wear Chemical Safety gloves approved by KOSHA(Korea Occupation Safety Health Agency)

○ Body Protection : wear protective clothes approved by KOSHA(Korea Occupation Safety Health Agency)

9. Physical And Chemical Properties

A. Appearance : Liquid, transparentness

B. Odor : No information.

C. Odor threshold : No Information

D. pH : No Information

E. Melting point/Freezing point : No Information

F. Initial boiling point/range : No Information

G. Flash point : No Information

H. Evaporation rate : No Information

I. Flammability(Solid, Liquid) : No Information

J. Flammability Limits upper/lower : No Information

K. Vapor pressure : No Information

L. Solubility : No Information

M. Vapor density : No Information

N. Viscosity : No Information

O. n octanol/water partition coefficient : No Information

P. Autoignition temperature : No Information

Q. Decomposition temperature : No Information

R. Specific gravity : No Information

S. Molecular weight : No Information

10. Stability And Reactivity

A. Stability : Stable under recommended storage conditions.

B. Possibility of harmful response : No Information.

C. Conditions to avoid (electric discharge, impact, vibration etc.) : Ignition source of Heat, spark, flame

D. Material to avoid : Combustible materials.

E. Hazardous Decomposition Products : No Information.

11. Toxicological Information

A. Probable Exposure Path

○ Respiratory : can be harmful if inhaled.

○ Ingestion : can be harmful if swallowed.

○ Eye/Skin : Harmful in contact with skin. Can be caused skin irritation.

B. Health Hazard Information

○ Acute Toxicity : No Information.

○ Skin corrosive or irritant : can be caused skin irritation.

○ Serious eye damage or irritant : can be caused eye irritation.

○ Respiratory Hypersensitivity : No Information.

○ Skin Hypersensitivity : No Information.

○ Carcinogenic Properties : No Information.

○ Reproductive Cell Mutation Properties : No Information.

○ Reproductive Toxicity : No Information

○ Target Organ Toxicity (Single Exposure) : No Information

○ Target Organ Toxicity (Repeat Exposure) : No Information

○ Inhalation Toxicity : No Information

C. Numerical measures of toxicity(Acute toxicity estimates etc.) : No Information

12. Ecological Information

A. Biological Toxicity : No Information

B. Persistency and Degradability : No Information

C. Bioconcentration : No Information

D. Soil Mobility : No Information

E. Other Toxic Effects : No Information

13. Disposal Considerations

A. Waste disposal method : Dispose of material in accordance with formally disposal company.

B. Disposal Considerations : Dispose contents and vessel in accordance with regulation by the waste disposal law.

14. Transport Information

A. UN number : N/A

B. UN Proper Shipping Name : N/A

C. Shipping Hazard Classification : N/A

D. Container Classification : N/A

E. Marine Pollutant : N/A

F. Special Safety Measures for Users Regarding Shipping or Shipping Measure: N/A

15. Regulatory Information

This safety datasheet compiles with the requirements of Regulation (EC) No. 1272/2008

16. Other References

Bioneer Corporation makes no warranty or representation to its completeness, accuracy or currency. This material is intended for use by persons with pertinent technical skills and at their discretion and risk. It is the responsibility of the user to determine the product's suitability for its intended use, the product's safe use, and the product's proper disposal. Disposal of hazardous material may be subject to federal, state or local laws or regulations.