

# Material Safety Data Sheet

## MBead Buffy Coat Genomic DNA Kit

### 1. IDENTIFICATION OF THE PREPARATION/SUBSTANCE AND OF THE COMPANY

Preparation Name: MBead Buffy Coat Genomic DNA Kit

Catalogue number of the product: NA008-0100, NA008-0004

Use of the preparation:

For laboratory use.

Company identification:

Genedirex, Inc.

Site: <http://www.genedirex.com>

### 2. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredients:

Component 1:

Lysis Buffer: 1 piece(s)

5-10% Guanidine Hydrochloride; CAS-No. 50-01-1

Component 2:

Wash Buffer: 1 piece(s)

10-15% Propan-2-ol; CAS-No. 71-23-8

Component 3:

Grind Buffer: 1 piece(s)

0.5-2% Sodium Dodecyl Sulphate; CAS-No. 151-21-3

Component 4:

Release Buffer: 1 piece(s)

No hazardous substances in concentrations to be declared

Component 5:

Magnetic Bead: 1 piece(s)

No hazardous substances in concentrations to be declared

Other components:

Components not listed here are not dangerous or their concentrations do not exceed the limits specified in the EU directive 1999/45/EC.

### 3. HAZARD IDENTIFICATION

Guanidine Hydrochloride:

WARNING! CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. HARMFUL IF SWALLOWED OR INHALED.

Health Rating: 2 - Moderate

Flammability Rating: 1 - Slight

Reactivity Rating: 0 - None

Contact Rating: 2 - Moderate

Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation:

Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

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## Ingestion:

Toxic. May cause neurological disturbances. Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

## Skin Contact:

Causes irritation to skin. Symptoms include redness, itching, and pain.

## Eye Contact:

Causes irritation, redness, and pain.

## Sodium Dodecyl Sulphate:

**WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY CAUSE ALLERGIC SKIN OR RESPIRATORY REACTION. FLAMMABLE SOLID.**

Health Rating: 1 - Slight

Flammability Rating: 3 - Severe (Flammable)

Reactivity Rating: 1 - Slight

Contact Rating: 3 - Severe (Life)

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES

Storage Color Code: Red (Flammable)

## Potential Health Effects

### Inhalation:

Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath. May cause allergic reaction in sensitive individuals.

### Ingestion:

Large doses may cause gastrointestinal distress, nausea and diarrhea.

### Skin Contact:

Mildly irritating to skin, causes dryness and a rash on continued exposure.

May cause allergic skin reactions.

### Eye Contact:

Causes irritation, redness, and pain.

### Chronic Exposure:

Chronic exposure may cause skin effects.

### Aggravation of Pre-existing Conditions:

Persons with pre-existing skin disorders or impaired respiratory function may be more susceptible to the effects of the substance.

## Propan-2-ol:

**IMMEDIATE CONCERNS: CAUTION!** May cause eye and skin irritation.

## Potential Health Effects

### Ingestion:

Harmful if swallowed.

### Inhalation:

May cause nasal and respiratory tract irritation.

### Eye Contact:

Moderately irritating to the eyes.

### Skin Contact:

May cause slight irritation.

### Aggravation of Pre-existing Conditions:

Dermatitis may be aggravated by excessive exposure to skin.

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## 4. FIRST-AID MEASURES

Guanidine Hydrochloride:

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Sodium Dodecyl Sulphate:

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact:

Immediately flush skin with plenty of soap and water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Propan-2-ol:

Eye Contact:

Flush eye with water for 15 minutes. Seek medical attention if irritation persists.

Skin Contact:

Wash with soap and water.

Ingestion:

Do not induce vomiting. Seek medical attention immediately.

Inhalation:

Move to fresh air

## 5. FIRE-FIGHTING MEASURES

Extinguishing media: No restriction.

Decomposition: Dangerous decomposition is not anticipated.

## 6. ACCIDENTAL RELEASE MEASURES

Actions to be taken on spillage:

Dilute spilled liquids with plenty of water and adsorb.

Absorbent material: No restriction.

Actions to be taken to limit

Damage: Special measures to limit damage are not necessary.

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## 7. HANDLING AND STORAGE

Handling: Open and handle vessels carefully.

Storage: Store at room temperature.

Storage Procedures: Do not store together with acids.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection: No personal respiratory protective equipment normally required.

Eye protection: Safety glasses

Hand protection: One-way gloves

Hygiene measures: Wash hands before and after use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Lysis Buffer

Form: liquid

Miscibility with water: immiscible

pH : 4.5

Grind Buffer

Form: liquid

Miscibility with water: immiscible

pH : 7.5

Wash Buffer

Form: liquid

Miscibility with water: immiscible

pH : 5.0

Release Buffer

Form: liquid

Miscibility with water: immiscible

pH : 8.5

## 10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Conditions to Avoid: Reacts with alkalis and oxidizing agents.

Hazardous Decomposition Products: Danger of toxic pyrolysis products.

## 11. TOXICOLOGICAL INFORMATION

Lysis Buffer

Guanidine Hydrochloride

Oral toxicity: LD50 rat 475 mg/kg

Toxicity (inhalation): LD50 rat 5.3 mg/l (4 h)

Toxicity (others): LD50 intra peritoneal mouse 500 mg/kg

Primary irritant effect:

On the skin: irritant to skin and mucous membranes.

On the eye: irritating effect.

Grind Buffer

Sodium Dodecyl Sulphate,

Oral toxicity: LD50 rat 1.288 mg/kg

wash Buffer

Propan-2-ol

Oral toxicity: LD50 rat ~ 5.8 - g/Kg-rat

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## 12. ECOLOGICAL INFORMATION

Water hazard class: 2 (hazardous to water and ground)

## 13. DISPOSAL CONSIDERATIONS

Waste disposal route: Used reagent can be disposed in accordance with local regulations.

Disposal of empty packaging: Dispose of empty packs by local recycling or waste disposal routes.

Clean thoroughly prior to disposal.

## 14. TRANSPORT INFORMATION

DOT regulations:

Hazard class: -

Land transport ADR/RID (cross-border):

ADR/RID class: -

Maritime transport IMDG:

IMDG Class: -

Marine pollutant: No

Air transport ICAO-TI and IATA-DGR

ICAO/IATA Class: -

## 15. REGULATORY INFORMATION

SARA (Superfund and Reauthorization Act)

Section 355 (extremely hazardous substances): None of the ingredients are listed.

Section 313 (Specific toxic chemical listings): None of the ingredients are listed.

TSCA (Toxic Substances Control Act): All ingredients are listed.

Proposition 65

Chemicals known to cause cancer: None of the ingredients are listed.

Chemicals known to cause reproductive toxicity: None of the ingredients are listed.

## 16. OTHER INFORMATION

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