

PCR Clean-Up & Gel Extraction Kit

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

Preparation Name: PCR Clean-Up & Gel Extraction Kit

Catalogue number of the product: PDC01-0100

Use of the preparation: For laboratory use.

Company identification: BIO-HELIX Co., LTD.

Site: <http://www.bio-helix.com>

E-mail: info@bio-helix.com

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Component 1:

Buffer DE: Guanidine Thiocyanate; CAS-No. 593-84-0

Component 2:

Buffer W1: Guanidine Hydrochloride; CAS-No. 50-01-1

Component 3:

Buffer W2: No hazardous substances in concentrations to be declared

Component 4:

Buffer EL : Tris-HCL; CAS-No. 1185-53-1

3. HAZARDS IDENTIFICATION

Guanidine Thiocyanate:

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

Health Rating: 2 - Moderate (Life)

Flammability Rating: 1 - Slight

Reactivity Rating: 1 - Slight

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.
Ingestion:

May cause psychosis, vomiting, disorientation, weakness, low blood pressure, convulsions and death which may be delayed. The probable lethal dose is between 15-30 grams.

Skin Contact:

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

Eye Contact:

Causes irritation, redness, and pain.

Material Safety Data Sheet

Chronic Exposure:

Prolonged or repeated skin exposure may cause dermatitis. Repeated ingestion of small amounts may cause weakness, confusion, central nervous system effects, nausea and skin eruptions.

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.

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.

Tris-HCL:

WARNING! HARMFUL IF SWALLOWED. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

Health Rating: 2 - Moderate

Flammability Rating: 1 - Slight

Reactivity Rating: 1 - Slight

Contact Rating: 2 - Moderate

Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES
Storage Color Code: Green (General Storage)

Potential Health

Effects Inhalation:

May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

Ingestion:

Mild alkali. May cause irritation and reddening to the mucous membranes of the mouth, esophagus, and gastrointestinal tract. Large oral doses may cause weakness, collapse, and coma.

Skin Contact:

May cause irritation with redness and pain.

Material Safety Data Sheet

Eye Contact:

May cause irritation, redness, pain, and corneal damage.

Chronic Exposure:

Chronic dermatitis may follow skin contact.

Aggravation of Pre-existing Conditions:

No information found.

4. FIRST AID MEASURES

Guanidine Thiocyanate:

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.

Skin Contact:

Wipe off excess material from skin then 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.

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.

Tris-HCL:

Inhalation:

Remove to fresh air. Get medical attention for any breathing difficulty. Ingestion:

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

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Skin Contact:

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

Eye Contact:

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

5. FIRE FIGHTING MEASURE

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.

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

Buffer DE

Form: liquid

Miscibility with water:

immiscible pH : 4.5

Buffer W1

Form: liquid

Miscibility with water: immiscible

pH : 7.0

Buffer W2

Form: liquid

Miscibility with water:

immiscible pH : 7.5

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Buffer EL

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

Buffer DE

Guanidine Thiocyanate

Toxicity (others): ORL-RAT LD50 593 mg kg-

1 IPR-MUS LD50 300 mg kg-1

Buffer W1

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 Buffer EL

Tris-HCL

No LD50/LC50 information found relating to normal routes of occupational exposure.

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: -s

Material Safety Data Sheet

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. PureDireX (Bio-Helix) shall not be held liable for any damage resulting from handling or from contact with the above product.