



## Total RNA Isolation Kit (Plant) (Column Based)

### Identification of the product / Substance and of the company

Product Name: Total RNA Isolation Kit (Plant) (Column Based)

Catalogue number of the product: PDC07-0100(S)

Use of the product: For laboratory use.

Company identification: BIO-HELIX Co.,LTD.

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

E-mail: [info@bio-helix.com](mailto:info@bio-helix.com)

### Composition / Information on ingredients

Ingredient:

Buffer RP	5-10% Guanidine Thiocyanate	CAS-No. 593-84-0
Buffer W1	5-10% Guanidine Hydrochloride	CAS-No. 50-01-1
Buffer W2	No hazardous substances in concentrations to be declared.	
Buffer RE	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.

### Hazards identification

Guanidine Thiocyanate:

Signal word: Danger

Acute oral toxicity: Category 4

Acute inhalation toxicity: Category 4

Acute dermal toxicity: Category 4

Skin irritation: Category 1C

Hazard statements: Cause eye damage. Harmful if swallowed, in contact skin, or inhaled.

Precautionary statements: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Storage: Store in a well-ventilated place.

Other hazards: None known.

Guanidine Hydrochloride:

Signal word: Warning

Acute oral toxicity: Category 4

Acute inhalation toxicity: Category 4

Skin irritation: Category 2

Eye damage/eye irritation: Category 2A

Hazard statements: Cause eye irritation. Harmful if swallowed.

Precautionary statements: Wear protective gloves/ protective clothing/ eye protection/ face protection.



Storage: Store in a well-ventilated place.

Other hazards: None known.

## First Aid Measures

Guanidine Thiocyanate:

In case of eye contact:

Immediately rinse out with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

In case of skin contact:

Remove contaminated clothing and shoes. Immediately flush skin with plenty of water for at least 15 minutes. Get medical aid.

If inhaled:

Remove from exposure and move to fresh air immediately. If necessary, also oxygen.

If swallowed:

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

Guanidine Hydrochloride:

In case of eye contact:

Immediately rinse out with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

In case of skin contact:

Remove contaminated clothing and shoes. Immediately flush skin with plenty of water for at least 15 minutes. Get medical aid.

If inhaled:

Remove from exposure and move to fresh air immediately. If necessary, also oxygen.

If swallowed:

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

## Fire-fighting measures

Extinguishing media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Decomposition: Dangerous decomposition is not anticipated.

## 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.



## Handling and storage

Advice on safe handling: Open and handle vessels carefully. Avoid contact with skin and eyes.  
 Storage condition: Keep container tightly closed. Store at room temperature.  
 Storage procedures: Do not store together with acids.

## 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.

## Physical and chemical properties

Buffer RP	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
Buffer RE	Form: liquid	Miscibility with water: immiscible	pH : 8.5

## Stability and reactivity

Stability: Stable under normal conditions.  
 Reactivity: Stable under normal conditions.  
 Conditions to avoid: Reacts with alkalis and oxidizing agents.  
 Hazardous decomposition products: Danger of toxic pyrolysis products.

## Toxicological information

### Guanidine Thiocyanate

Acute oral toxicity: LD50 rat 593 mg/kg.  
 Skin corrosion/irritation: rabbit – Corrosive after exposure – 1 to 4 hrs.  
 Eye damage: Causes serious eye damage.

### Guanidine Hydrochloride

Acute oral toxicity: LD50 rat 475 mg/kg  
 Skin corrosion/irritation: Irritations.  
 Eye damage: Causes serious eye damage.

## Ecological information

May be harmful to aquatic. Avoid release to the environment.

## 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.





## Transport information

Special precautions: None known.

Proper shipping name: Not dangerous goods according to transport regulations.

National transport regulations: No additional national transport regulations are known to the supplier.

IMDG: Non-hazardous for sea freight.

ADR: Non-hazardous for road transport.

RID: Non-hazardous for rail transport.

ICAO/IATA: Non-hazardous for air transport.

## 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.

## 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.