

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

- Business Unit: Molecular Biology
- Production Name: FFPE Total DNA/RNA extraction miniprep system
- Catalogue Number: FFDR1001

<u>Component:</u>	<u>Component Part Number</u>
FLYS Buffer	FLYS0012
FX Buffer	FX000017
WS Buffer	WS00016
Proteinase K	PK00010

- Manufacturer/ Supplier: **VIOGENE BIOTEK CORP.**
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- Preparation Date: ____ / ____ / ____
- Contact / Preparatory: Simon Chou
- Information Number: + 886 2 2647 2259

[NOTE:] The emergency number to be used particularly in emergencies involving a non-specific accident spill, leak, fire or exposure.

2. COMPOSITION / DATA ON COMPONENTS

Hazardous Ingredients:		Hazard Classification of Pure Ingredients	
Chemical name	Cas No.	EU 1272/2008 CLP/GHS	EU-67/548/EEC
Guanidine Hydrochloride	50-01-1	acute toxicity, oral (4) Eye irritation (2) Skin irritation (2) H302, H315, H319	Harmful if swallowed. Irritating to eyes and skin. R22 R36/38

3. HAZARDS IDENTIFICATION

Potential health effects:

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Inhalation	Causes irritation to respiratory tract. Symptoms may include coughing, shortness of breath.
Ingestion	Toxic. May cause neurological disturbances. Causes irritation to gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.
Skin Contact	Cause irritation to skin. Symptoms include redness, itching, and pain.
Eye Contact	Cause irritation, redness, and pain.
Other Hazard	N/A

4. FIRST AID MEASURES

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. Clean clothing and shoes before use.
Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes. Lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

Fire Extinguishing Media: Dry chemical, foam or carbon dioxide.

Special Hazards Arising From the Substance or Mixture: N/A

Advice for fire fighters

Wear full protective clothing and self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Use universal precautions during clean-up procedures. Avoid eye and skin contact, inhalation and ingestion.

Environmental Precautions: Contain spill to prevent migration.

Methods and material for containment and cleaning up

Absorb spilled material with an appropriate inert, non-flammable absorbent and dispose according to local regulations.

7. HANDLING AND STORAGE

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Precautions for safe handling

Avoid inhaling, ingesting, and contact with eyes and skin. Use universal precautions during clean up procedures.

Conditions for safe storage, including any incompatibilities

Store at room temperature and keep away from incompatible material (see section 10). Keep container tightly closed and upright to prevent leakage.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering controls

No special engineering controls are necessary for normal handling of this product.

Personal protection

Eye protection Safety glasses or chemical goggles should be worn to prevent eye contact.

Skin protection Wear impervious protecting clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory Protection Under normal conditions, the use of this product should not require respiratory protection. If aerosols are generated during use, the use of respiratory protection should be evaluated by a qualified professional.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical State	Liquid	Specific Gravity (Water=1.0)	N/A
Color	N/A	Solubility	N/A
Transparency	Clear	Odor	Odorless
pH	N/A	Coefficient of Water/Oil Distribution	N/A
Freezing Point	N/A	Autoignition Temp.	N/A
Boiling Point	N/A	Decomposition Temperature	N/A
Flash Point	N/A	Percent Volatiles	N/A
Evaporation Rate	N/A	Vapor Pressure	N/A
Flammability (Solid, Gas)	N/A	Viscosity	N/A
Flammable Limits	N/A	Explosive Properties	N/A
Vapor Density	N/A	Oxidizing Properties	N/A
Odor Threshold	N/A	Other information	N/A

10. STABILITY AND REACTIVITY

Reactivity N/A

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Chemical Stability	Stable under normal temperatures and pressures.
Possibility of Hazardous Reactions	N/A
Conditions to Avoid	Avoid to exposure to heat and incompatible materials.
Incompatible Materials	Strong oxidizing agents, strong acids, strong bases.
Hazardous Decomposition Products	N/A

11. TOXICOLOGICAL INFORMATION

Toxicity Data for Hazardous Ingredients

Guanidine Hydrochloride Oral LD50 rat: 475 mg/kg

Primary routes of exposure: Eye contact, ingestion, inhalation, and skin contact

Carcinogenicity:

No ingredients in this product are identified as human carcinogen based on its IARC, NTP, or EPA classification.

Potential health effects:

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	Harmful if swallowed. Cause gastrointestinal tract irritation and may cause neurological disturbances.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes serious eye irritation.

Other information: N/A

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION:

Environmental Fate: N/A

Environmental Toxicity: 48 Hr LC50 *Leuciscus idus*: 1785mg/L (Gu-HCl)

13. DISPOSAL CONSIDERATIONS:

Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.

14. TRANSPORT INFORMATION:

Transportation of this product is not regulated.

15. REGULATORY INFORMATION:

Safety, health and environmental regulations/legislation specific for the substance or mixture: N/A

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Chemical safety assessment: N/A

16. OTHER INFORMATION:

Other Comment: N/A – Not available or no information.

Disclaimer:

This information contained herein is based upon our efforts to acknowledge. However, we do not warrant the accuracy of this information. In no case shall VIOGENE does constitute a warranty for incidental or consequential damages, including lost profits.