Material Safety Data Sheet

Genomic DNA Extraction Kit(Reagent)

Revision date:2022/05/11
Version: 2012-01

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

Commercial Product name:	Genomic DNA Extraction Kit (Reagent)
Product number:	YGE100R, YGE1KR.
Intended use:	Biochemical kit

Supplier: RBC Bioscience Corp.
15F., No. 15, Ciaohe Rd., Zhonghe Dist., New Taipei City 235029 , Taiwan
Phone Number: +886-2-8912-1200
Emergency telephone number: +886-2-8912-1200

2. CHEMICAL CHARACTERISATION

Component 1:

RBC Lysis Buffer:
Ingredients 5% Ammonium Chloride (CAS-No. 12125-02-9);
0.05% EDTA (CAS-No. 94108-75-5);
94.95% distilled H2O.

Component 2:

Cell Lysis Buffer:
Ingredients 2.5% Tris-HCl (CAS-No. 1185-53-1);
2.0% EDTA (CAS-No. 94108-75-5);
0.5% Sodium Dodecyl Sulfate (CAS-No. 00151-21-3);
95% distilled H2O.

Component 3:

Protein Precipitation Buffer:
Ingredients 60% Ammonium Acetate (CAS-No. 631-61-8);
40% distilled H2O.

Component 4:

DNA Hydration Buffer:
Ingredients 2.5% Tris-HCl (CAS-No. 1185-53-1);
97.5% distilled H2O.

Component 5:

RNase A:
Ingredients 1% Ribonuclease A (CAS-No. 9001-99-4).
99% distilled H2O.

3. HAZARDS IDENTIFICALTION

********** EMERGENCY OVERVIEW **********

Component 4 and 5 – Occupational exposure presents little or no health hazard.

Component 1, 2, and 3 - Warning! Irritant. Harmful if swallowed. May cause allergic skin reaction. Possible reproductive system hazard based on animal data.

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Potential Health Effects:

Eye: Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue. Can cause severe irritation. Eye contact may result in corneal injury. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Temporary vision impairment (cloudy or blurred vision) is possible.

Skin: Can cause moderate skin irritation, defecting, and dermatitis. Not likely to cause permanent damage. May cause allergic skin reaction.

Inhalation: Can cause minor respiratory irritation, dizziness, weakness, fatigue, nausea, and headache. Can be corrosive to the respiratory tract causing severe irritation and tissue damage. If liquid mists are breathed into the lungs, they may be rapidly absorbed through the lungs and injure specific target organs. No toxicity expected from inhalation.

Chronic: No data on cancer. Contains a substance(s) that is a possible reproductive system hazard based on high dose tests with laboratory animals.

4. FIRST AID MEASURES

Eye: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Remove contact lenses, clean before re-use. Get immediate medical attention.

Skin: Wash with soap and water. Remove contaminated clothing and launder immediately, and discard contaminated leather goods, and wash before re-use. Get medical attention immediately if irritation develops or persists.

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.

Ingestion: **Component 1, 2, and 3** - Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Get medical attention immediately.

Note To Physician: Treat symptomatically.

5. FIRE FIGHTING MEASURE

Flash point: Not available.

Melting point/Melting range: > 121℃

Boiling point/Boiling range:100℃.

Upper Flammable Limit %: Not available.

Lower Flammable Limit %: Not available.

Extinguishing Media: CO2, extinguishing or water spray. Fight larger fires with water spray or alcohol resistant

Firefighting Techniques/Equipment: Do not inhale explosion gases or combustion gases.

Erode Character: No information available.

6. ACCIDENTAL RELEASE MEASURES

Spill Cleanup:

Component 4, and 5 – Absorb spill. Common absorbent materials should be effective. Deposit in appropriate containers for removal and disposal.

Component 1, 2, and 3 - Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section VIII of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Prevent the spread of any spill to minimize harm to human

health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section VIII at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Storage of some materials is regulated by federal, state, and/ or local laws.

Storage Pressure: Ambient.

Handling Procedures: **Component 4, and 5** – Keep closed or covered when not in use.
Component 1, 2, and 3 – Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Keep closed or covered when not in use.

Storage Procedures: Do not store together with acids.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limits:

Component	OSHA PEL (ppm)	AGCIH TWA (ppm)
Guanidine thiocyante	Not established.	Not established.

Engineering Controls: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Personal Protective Equipment:

Eye: An eye wash station must be available where this product is used. Wear chemical goggles.

Skin: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Have a safety shower available.

Respiratory: Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/physical state: Liquid solution / suspension
Order: No odor.
Specific Gravity/Density: Not established.
Octanol/water Partition Coeff: Not established.
Volatiles: Not established.
Evaporation Rate: Not established.
Viscosity: Not established.

10. STABILITY AND REACTIVITY

Stable under normal conditions.
Conditions to Avoid: Strong-oxidizing agents.
Hazardous Decomposition Products: Carbon dioxide. Carbon monoxide. Nitrogen oxides. Hydrogen chloride.
Hazardous Polymerization: Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

No toxic, no infectious, no corrosive material inside.
Not applied to IATA DGR
Proper Shipping Name: Not determined.
Subsidiary Hazards: Not determined.

12. Ecological Information

Eco-toxicological Information: No ecological information available. Environmental Fate (Degradation, Transformation, and Persistence): Bio-concentration is not expected to occur.

13. DISPOSAL CONSIDERATIONS

Regulatory Information: Not applicable.
Disposal Method: Clean up and dispose of waste in accordance with all federal, state, and or local environmental.

14. TRANSPORT INFORMATION

No toxic, no infectious, no corrosive material inside.
Not applied to IATA DGR
Proper Shipping Name: Not determined.
Subsidiary Hazards: Not determined.

15. OTHER INFORMATION

WHMIS Rating 0-4:
FIRE:0.
HEALTH: 2.
REACTIVITY: 0
Abbreviations
N/A - Data is not applicable or not available
SARA - Superfund and Reauthorization Act
HMIS - Hazard Material Information System
WHMIS - Workplace Hazard Materials Information System
NTP - National Toxicology Program
OSHA - Occupational Health and Safety Administration
IARC - International Agency for Research on Cancer
PROP 65 - California Safe Drinking Water and Toxic Enforcement Act of 1986
EINECS - European Inventory of Existing Commercial Chemical Substances