

SECTION 1 – IDENTIFICATION

1.1 Product Identifier:

Product No: KIT-9022-250
 Product Name: PrimeWay Genomic II DNA Extraction Kit, 250 preps

Other means of identification:

See section 3 or

A registration number for the substance(s) does not exist because the annual tonnage does not require registration or the substance or its use is excluded from registration.

*1x 60 mL GL1 Buffer
 1x 60 mL GL2 Buffer
 1x 110 mL Wash Buffer G1
 1x 35 mL Wash Buffer G2
 1x 30 mL Elution Buffer
 1x 110 mg Proteinase K
 1x 110 mg RNase A*

1.2 Recommended use of the chemical and restrictions on use:

To extract genomic DNA from animal tissue, cultured cells, mouse/rat tail, bacteria, yeast, fungi from cut agar, whole blood, buffy coat, nucleated blood, dried blood spot, white blood cells, insects, buccal swab, saliva, alcohol-fixed tissue, sperm and feathers/ nails/ hair.

For R&D use only. Not for pharmaceutical, household, or other uses.

1.3 Supplier Information:

Axil Scientific Pte Ltd
 2 Tukang Innovation Grove,
 06-01 JTC MedTech Hub,
 Singapore 618305

Tel: +65 6775 7318

Email: custcare@axilscientific.com

Apical Scientific Sdn Bhd
 No 7-1 to 7-4, Jalan SP 2/7
 Taman Serdang Perdana, Seksyen 2
 Seri Kembangan 43300
 Selangor Darul Ehsan, Malaysia
 Tel: +603 8943 3252
 Fax: +603 8943 3243
 Email: custcare@apicalscientific.com

1.4 Emergency phone number:

Monday – Friday, (UTC +8:00) 8:00 a.m. to 6:00 p.m.

+65 6775 7318 (Singapore)

+603 8943 3252 (Malaysia & Other Countries)

SECTION 2 – HAZARDS IDENTIFICATION

2.0 GHS Classification of Complete Product



Signal word

DANGER

Hazard Identification

H302

H315

H319

Hazard Classification; Hazard Statement

Acute Tox. 4 oral; Harmful if swallowed.

Skin Irrit. 2; Causes skin irritation.

Eye Irrit. 2; Causes serious eye irritation.

H334	Resp. Sens. 1; May cause allergic or asthma symptoms or breathing difficulties if inhaled.
H335	Acute Tox. 3; May cause respiratory irritation.

2.1 GHS Classification of the Substance or Mixture

60 mL GL1 Buffer



Hazard Identification

H302
H315
H319

Hazard Classification; Hazard Statement

Acute Tox. 4 oral; Harmful if swallowed.
Skin Irrit. 2; Causes skin irritation.
Eye Irrit. 2; Causes serious eye irritation.

60 mL GL2 Buffer



Signal word

WARNING

Hazard Identification

H302
H315
H319

Hazard Classification; Hazard Statement

Acute Tox. 4 oral; Harmful if swallowed.
Skin Irrit. 2; Causes skin irritation.
Eye Irrit. 2; Causes serious eye irritation.

110 mL Wash Buffer G1



Signal word

WARNING

Hazard Identification

H302
H315
H319

Hazard Classification; Hazard Statement

Acute Tox. 4 oral; Harmful if swallowed.
Skin Irrit. 2; Causes skin irritation.
Eye Irrit. 2; Causes serious eye irritation.

35 mL Wash Buffer G2

Do not need labelling as hazardous

Signal word

-

No hazard class

30 mL Elution Buffer

Do not need labelling as hazardous

Signal word

-

No hazard class

110 mg Proteinase K



Signal word

DANGER

Hazard Identification

H315
H319
H334
H335

Hazard Classification; Hazard Statement

Skin Irrit. 2; Causes skin irritation.
Eye Irrit. 2; Causes serious eye irritation.
Resp. Sens. 1; May cause allergic or asthma symptoms or breathing difficulties if inhaled.
Acute Tox. 3; May cause respiratory irritation.

110 mg RNase A

Do not need labelling as hazardous

Signal word

-

No hazard class

2.2 Label Elements, including precautionary statements

60 mL GL1 Buffer



Signal word: WARNING

60 mL GL2 Buffer



Signal word: WARNING

110 mL Wash Buffer G1



Signal word: WARNING

35 mL Wash Buffer G2

Do not need labelling as hazardous.
Signal word: -

30 mL Elution Buffer

Do not need labelling as hazardous.
Signal word: -

110 mg Proteinase K



Signal word: DANGER

110 mg RNase A

Do not need labelling as hazardous.

Signal word: -

Precautionary statement(s): -

Prevention

P261sh Avoid breathing dust/vapors.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P301 + P312 If swallowed: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352 If on skin: Wash with plenty of soap and water.
P304 + P340 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P362 Take off contaminated clothing and wash it before reuse.

2.3 Other hazards

Possible hazards from physicochemical properties

In the case of pH values are less than 5 or higher than 9 then it is irritant.

Information pertaining to particular risks to human and possible symptoms

Cause after oral intake, impairments of health when ingested in small quantities. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Information pertaining to particular risks to the environment

No data available.

Other hazards:

No additional data available.

SECTION 3 – COMPOSITION/ INFORMATION ON INGREDIENTS THAT CONTRIBUTING TO HAZARD

3.1 Substances or 3.2 Mixtures

60 mL GL1 Buffer

Chemical:	sodium dodecyl sulfate	CAS No.: 151-21-3
GHS Classification:	H302, Acute Tox. 4 oral; H315, Skin Irrit. 2; H319, Eye Irrit. 2	
Formula:	C ₁₂ H ₂₅ OSO ₃ Na	
Pseudonym:	Sodium lauryl sulfate Lauryl sulfate sodium salt SDS	
EC No.:	205-788-1	

Concentration: ≤2%

60 mL GL2 Buffer

Chemical: guanidine hydrochloride CAS No.: 50-01-1
 GHS Classification: H302, Acute Tox. 4 oral; H315, Skin Irrit. 2; H319, Eye Irrit. 2
 Formula: CH₆ ClN₃
 Pseudonym: guanidinium chloride
 EC No.: 200-002-3
 Concentration: ≤10 %

110 mL Wash Buffer G1

Chemical: guanidine hydrochloride CAS No.: 50-01-1
 GHS Classification: H302, Acute Tox. 4 oral; H315, Skin Irrit. 2; H319, Eye Irrit. 2
 Formula: CH₆ ClN₃
 Pseudonym: guanidinium chloride
 EC No.: 200-002-3
 Concentration: ≤10 %

35 mL Wash Buffer G2

No component or ingredient is contributing to hazard.

30 mL Elution Buffer

No component or ingredient is contributing to hazard.

110 mg Proteinase K

Chemical: proteinase K (origin: tritirachium album) CAS No.: 39450-01-6
 GHS Classification: H315, Skin Irrit. 2; H319, Eye Irrit. 2; H334, Resp. Sens. 1; H335, Acute Tox. 3
 Formula: Enzyme Comm. No. 3.4.21.64, origin: tritirachium album
 Pseudonym: Endopeptidase K
 Protease K
 EC No.: 254-457-8
 Concentration: 95 - <100 %
 acc. CLP (GHS): H315, Skin Irrit. 2; H319, Eye Irrit. 2; H334, Resp. Sens. 1; H335, Acute Tox. 3

110 mg RNase A

No component or ingredient is contributing to hazard.

3.3 Remarks

Components of mixture that are not listed are not hazardous to health or the environment within the meaning of GHS, and/or are present below their cut-off levels.

SECTION 4 – FIRST-AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

Eye Contact

Rinse cautiously with plenty of water. Remove contact lenses. Continue rinsing for at least 15 minutes and consult a physician.

Skin Contact

Rinse skin with soap and plenty of water. Remove contaminated clothing/ shoes and consult a physician.

Inhalation

Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.

Ingestion

After oral intake, lots of water should be drunk after it has been ingested. If you feel unwell, seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.3) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5 – FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable extinguishing media

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

5.2 Special Exposure Hazards

Carbon oxides, Nitrogen oxides (NO_x)

5.3 Special Fire-fighting Procedures

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

5.4 Further Information

The product itself does not burn.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

Regular staff training is necessary, indicating hazards and precautions about the basis of operating instructions. Restrictions on activity must be observed. Wear protective gloves, protective clothing, and eye/face protection. Observe general safety guidelines for protection; avoid eye and skin contact.

6.2 Environmental precautions

Contain spill to prevent migration. Do not allow the undiluted product to enter sewers/surface or ground water. Dispose of contents/container in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

Bind any escaping liquid with inert absorbent or liquid-binding material. Dispose chemicals or excess reagents in accordance with local regulations for hazardous chemicals. Clean any contaminated equipment and floors with plenty of water. Collect small amounts of leaked liquid and flush with water into drains.

6.4 Reference to other sections

Nil.

SECTION 7 – HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product. Use only in well-ventilated working areas.

7.2 Conditions for safe storage, including any incompatibilities.

The original product package allows a safe storage. To maintain product quality, store according to the instructions in the product labelling.

7.2.1 Requirements for stock rooms and containers

Keep original product packages tightly closed during handling and storage.

7.3 Specific end use(s)

Product for research use.

SECTION 8 – EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

60 mL GL1 Buffer

This component is not known to contain any substances with occupational exposure limit values.

60 mL GL2 Buffer

Chemical: Guanidine hydrochloride
DNEL : 3.5 mg/m³ [inh]
PNEC_(fresh water) : Not listed
NIOSH : Not listed
OSHA : Not listed

CAS No.: 50-01-1

110 mL Wash Buffer G1

Chemical: Guanidine hydrochloride
DNEL : 3.5 mg/m³ [inh]
PNEC_(fresh water) : Not listed
NIOSH : Not listed
OSHA : Not listed

CAS No.: 50-01-1

35 mL Wash Buffer G2

This component is not known to contain any substances with occupational exposure limit values.

30 mL Elution Buffer

This component is not known to contain any substances with occupational exposure limit values.

110 mg Proteinase K

This component is not known to contain any substances with occupational exposure limit values.

110 mg RNase A

This component is not known to contain any substances with occupational exposure limit values.

8.2 Exposure controls

Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities. High level of cleanliness shall be maintained at the workplace.

8.2.1 Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts is desired, use type N95 (US) or type P1 (EN 143) dust masks.

8.2.2 Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves must satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

8.2.3 Eye/ face protection

Use safety glasses. Where contact with the eyes is likely, use chemical safety goggles.

8.2.4 Skin protection

Recommended to avoid contamination with these hazards.

8.2.5 Personal hygiene

Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contact with the skin, eyes, and clothing. Rinse any clothing on which the substance has been spilled and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

60 mL GL1 Buffer

Appearance: Liquid

pH: 7.5 – 8.5 (Neat, 25 °C)

Colour: Colourless

Specific gravity: No data available

Odour: Odourless

60 mL GL2 Buffer

Appearance: Liquid

pH: 7.5 – 8.5 (Neat, 25 °C)

Colour: Pale yellow

Specific gravity: No data available

Odour: Odourless

110 mL Wash Buffer G1

Appearance: Liquid

pH: 7.5 – 8.5 (Neat, 25 °C)

Colour: Colourless

Specific gravity: No data available

Odour: Odourless

35 mL Wash Buffer G2

Appearance: Liquid

pH: 7.5 – 8.5 (Neat, 25 °C)

Colour: Colourless

Specific gravity: No data available

Odour: Odourless

30 mL Elution Buffer

Appearance: Liquid

pH: 7.5 – 8.5 (Neat, 25 °C)

Colour: Colourless

Specific gravity: No data available

Odour: Odourless

110 mg Proteinase K

Appearance: Fine powder

pH: No data available

Colour: White

Specific gravity: No data available

Odour: No data available

110 mg RNase A

Appearance: Powder

pH: No data available

Colour: Pale Yellow

Specific gravity: No data available

Odour: No data available

9.2 Other information

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.

9.3 Relevant Properties of Substance Group

No data available.

SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Store according to the recommended temperature on the container label.

10.3 Possibility of hazardous reactions

Hazardous reaction has not been reported.

10.4 Conditions to avoid

Strong heat, direct sunlight, strong oxidizers, and strong reducers.

10.5 Incompatible materials

Avoid contact with strong acids or alkaline.

10.6 Hazardous decomposition products

In the original package, all parts/ all reagents are safely and separately stored. Decompositions are not observed during the expiration period under recommended conditions.

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Mixture:

Acute toxicity

60 mL GL1 Buffer

Harmful if swallowed.

60 mL GL2 Buffer

Harmful if swallowed.

110 mL Wash Buffer G1

Harmful if swallowed.

35 mL Wash Buffer G2

Harmful if swallowed.

30 mL Elution Buffer

Harmful if swallowed.

Skin corrosion/irritation

60 mL GL1 Buffer

Mixture may cause skin irritation and/or dermatitis.

60 mL GL2 Buffer

Mixture may cause skin irritation and/or dermatitis.

110 mL Wash Buffer G1

Mixture may cause skin irritation and/or dermatitis.

35 mL Wash Buffer G2

Mixture may cause skin irritation and/or dermatitis.

30 mL Elution Buffer

Mixture may cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation**60 mL GL1 Buffer**

Mixture may cause serious eye irritation.

60 mL GL2 Buffer

Mixture may cause serious eye irritation.

110 mL Wash Buffer G1

Mixture may cause serious eye irritation.

35 mL Wash Buffer G2

Mixture may cause serious eye irritation.

30 mL Elution Buffer

Mixture may cause serious eye irritation.

Respiratory or skin sensitization**110 mg Proteinase K**

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

110 mg RNase A

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

Germ cell mutagenicity: No data available

Carcinogenicity: No data available

Reproductive toxicity: No data available

Specific target organ toxicity: May cause respiratory irritation.

Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: No data available

11.2 Additional Information

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

Other dangerous properties cannot be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Component:

Sodium dodecyl sulphate**Acute toxicity:**

LD50 Oral - Rat - 1288 mg/kg

LD50 Dermal - Rabbit - 200 mg/kg

LC50 Inhalation - Rat - >3900 mg/m³

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Irritating to eyes.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity – single exposure

No data available

Specific target organ toxicity – repeated exposure

No data available

Aspiration hazard

No data available

Component:

Guanidine hydrochloride

Acute toxicity:

LD50 Oral - Rat - 475 mg/kg

LD50 Dermal - Rabbit - 2000 mg/kg

LC50 Inhalation - Rat - 3.181 – 7.655 mg/L - 4 h

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity – single exposure

No data available

Specific target organ toxicity – repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity

Data for the substances and mixtures are not available.

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Other adverse effects

No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose-off as unused product.

SECTION 14 – TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

UN Number

ADR/RID: -

IMDG: -

IATA-DGR: -

UN Proper Shipping Name:

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA-DGR: Not dangerous goods

Transport Hazard Class(es)

ADR/RID: -

IMDG: -

IATA-DGR: -

Packing Group

ADR/RID: -

IMDG: -

IATA-DGR: -

Environmental Hazards

ADR/RID: no

IMDG: marine pollutant: no

IATA-DGR: no

Special Precaution for Users

No data available.

SECTION 15 – REGULATORY INFORMATION

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

No data available.

SECTION 16 – OTHER INFORMATION

Date of Issue: 4 July 2023

Date of Revision: 4 July 2023

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable

to the product with regard to appropriate safety precautions. We shall not be held liable for any damage resulting from handling or from contact with the above product and shall not establish a legally valid contractual relationship.