

SECTION 1 – IDENTIFICATION

1.1 Product Identifier:

Product No: KIT-9020-50
Product Name: PrimeWay Genomic DNA Extraction Kit, 50 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.

*1 x 20 mL TLB1 Buffer
1 x 15 mL TLB2 Buffer
1 x 30 mL Wash Buffer T1
1 x 12 mL Wash Buffer T2
1 x 13 mL Elution Buffer
1 x 30 mg Proteinase K
1 x 1.8 mL Proteinase Buffer*

1.2 Recommended use of the chemical and restrictions on use:

To extract nucleic acid from tissue, cells, rodent tails, bacteria, yeast, dried blood spots, insects, and buccal swab.

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

H226
H302
H315
H319
H334

Hazard Classification; Hazard Statement

Flam. Liq. 3; Flammable liquid and vapour
Acute Tox. 4 oral; Harmful if swallowed
Skin Irrit. 2; Causes skin irritation
Eye Irrit. 2; Causes serious eye irritation

H336

Resp. Sens. 1; May cause allergic or asthma symptoms or breathing difficulties if inhaled
STOT SE 3; May cause drowsiness or dizziness

2.1 GHS Classification of the Substance or Mixture

20 mL TLB1 Buffer

Do not need labelling as hazardous

Signal word -

No Hazard Class

15 mL TLB2 Buffer



Signal word

Warning

Hazard Identification

H302
H319

Hazard Classification; Hazard Statement

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

30 mL Wash Buffer T1



Signal word

Warning

Hazard Identification

H226
H302
H319
H336

Hazard Classification; Hazard Statement

Flam. Liq. 3; Flammable liquid and vapour
Acute Tox. 4 oral; Harmful if swallowed
Eye Irrit. 2; Causes serious eye irritation
STOT SE 3; May cause drowsiness or dizziness

12 mL Wash Buffer T2

Do not need labelling as hazardous

Signal word -

No Hazard Class

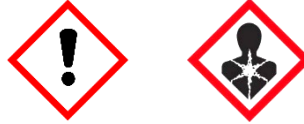
13 mL Elution Buffer

Do not need labelling as hazardous

Signal word -

No Hazard Class

30 mg Proteinase K



Signal word

Danger

Hazard Identification

H315

H319

H334

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

1.8 mL Proteinase Buffer

Do not need labelling as hazardous

Signal word

-

No Hazard Class

2.2 Label Elements, including precautionary statements

20 mL TLB1 Buffer

Do not need labelling as hazardous.

Signal word: -

15 mL TLB2 Buffer



Signal word: WARNING

30 mL Wash Buffer T1



Signal word: WARNING

12 mL Wash Buffer T2

Do not need labelling as hazardous.

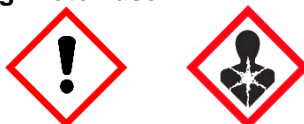
Signal word: -

13 mL Elution Buffer

Do not need labelling as hazardous.

Signal word: -

30 mg Proteinase K



Signal word: DANGER

1.8 mL Proteinase Buffer

Do not need labelling as hazardous.

Signal word: -

Precautionary statement(s):

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P260D Do not breathe vapors.

P261sh Avoid breathing dust/vapors.

P264W Wash with water thoroughly after handling.

P280sh Wear protective gloves/eye protection.

Response

P301+312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P330 Rinse mouth.

P342+311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

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. Flammable properties.

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. Kit contains small amounts of enzymes, which may cause sensitization by direct and repeated contact.

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

20 mL TLB1 Buffer

No component or ingredient is contributing to hazard.

15 mL TLB2 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: $\text{CH}_6 \text{ClN}_3$

Pseudonym: guanidinium chloride

EC No.: 200-002-3

Concentration: 36 - <50 %

acc. CLP (GHS): H302, Acute Tox. 4 oral, H319, Eye Irrit. 2

30 mL Wash Buffer T1

Chemical: guanidine hydrochloride CAS No.: 50-01-1

GHS Classification: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2

Formula: $\text{CH}_6 \text{ClN}_3$

Pseudonym: guanidinium chloride

EC No.: 200-002-3

Concentration: 36 - <50 %

acc. CLP (GHS): H302, Acute Tox. 4 oral, H319, Eye Irrit. 2

Chemical: 2-propanol CAS No.: 67-63-0
GHS Classification: H225, Flam. Liq. 2, H319, Eye Irrit. 2, H336, STOT SE 3
Formula: C₃ H₈ O
Pseudonym: isopropanol, IPA, propan-2-ol, isopropyl alcohol
EC No.: 200-661-7
Concentration: 20 - <35 %
acc. CLP (GHS): H226, Flam. Liq. 3, H319, Eye Irrit. 2, H336, STOT SE 3

12 mL Wash Buffer T2

No component or ingredient is contributing to hazard.

13 mL Elution Buffer

No component or ingredient is contributing to hazard.

30 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
Formula: Enzyme Comm. No. 3.4.21.64, origin: tritirachium album
EC No.: 254-457-8
Concentration: 90 - <100 %
acc. CLP (GHS): H315, Skin Irrit. 2, H319, Eye Irrit. 2, H334, Resp. Sens. 1

1.8 mL Proteinase Buffer

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

Not expected to present a significant ingestion hazard under anticipated conditions of normal use. 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**
WARNING: Flammable. May form explosive vapor-air mixtures. Formation of hazardous and caustic vapor-air mixtures possible.
- 5.3 Special Fire-fighting Procedures**
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Product package burns like paper or plastic.
- 5.4 Further Information**
No data available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment, and emergency procedures**
Do not breathe vapors. 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. And dispose chemicals or excess reagents in accordance to 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**
No data available.

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

20 mL TLB1 Buffer

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

15 mL TLB2 Buffer

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

30 mL Wash Buffer T1

Chemical: *2-propanol* CAS No.: 67-63-0
Singapore OEL (PEL) = 400 ppm / 983 mg/m³
Singapore OEL (STEL) = 500 ppm / 1230 mg/m³
Malaysia OEL (TWA) = 400 ppm / 983 mg/m³

12 mL Wash Buffer T2

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

13 mL Elution Buffer

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

30 mg Proteinase K

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

1.8 mL Proteinase Buffer

Chemical: *glycerol* CAS No.: 56-81-5
Singapore OEL (PEL) = 10 mg/m³
Malaysia OEL (TWA) = 10 mg/m³

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

20 mL TLB1 Buffer

Appearance: Liquid	Colour: Colourless	Odour: Odourless
pH: 7.5 - 8.5 (Neat, 25 °C)	Specific gravity: 1.02 g/cm ³	

15 mL TLB2 Buffer

Appearance: Liquid	Colour: Slightly yellow	Odour: Odourless
pH: 3.5 - 4 (Neat, 25 °C)	Specific gravity: 1.15 g/cm ³	

30 mL Wash Buffer T1

Appearance: Liquid	Colour: Colourless	Odour: Alcoholic
pH: 7 - 8 (Neat, 25 °C)	Specific gravity: 1.06 g/cm ³	

12 mL Wash Buffer T2

Appearance: Liquid	Colour: Colourless	Odour: Odourless
pH: 7 - 8 (Neat, 25 °C)	Specific gravity: 1.00 g/cm ³	

13 mL Elution Buffer

Appearance: Liquid	Colour: Colourless	Odour: Odourless
pH: 8 - 9 (Neat, 25 °C)	Specific gravity: 1.00 g/cm ³	

30 mg Proteinase K

Appearance: Fine powder	Colour: Slightly grey	Odour: Odourless
pH: No data available	Specific gravity: No data available	

1.8 mL Proteinase Buffer

Appearance: Liquid	Colour: Colourless	Odour: Alcoholic
pH: No data available	Specific gravity: 1.11 g/cm ³	

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

Data not available.

10.2 Chemical stability

Store according to the recommended temperature on the container label.

10.3 Possibility of hazardous reactions

Can form very reactive substances with oxidizing agents. No further data available.

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
Quantitative data on the toxicity of this product are not available.

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity
Data for the mixtures are not available.

12.2 Persistence and degradability
Not necessary.

12.3 Bioaccumulative potential
Not necessary.

12.4 Mobility in soil
Not necessary.

12.5 Other adverse effects
No additional data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

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

13.2 Contaminated packaging: Normally it is possible to empty small amounts after dilution into drains.

SECTION 14 – TRANSPORT INFORMATION

UN/NA 1993 Class 3 III, Excepted Quantities (≤ 30 mL/ $\Sigma \leq 1$ L) = ADR/ IATA E1
or

14.1 UN Number
ADR/RID: 1993 IMDG: 1993 IATA-DGR: 1993

14.2 UN Proper Shipping Name:
ADR/RID: Flammable liquid, n.o.s. (2-propanol mixture)
IMDG: Flammable liquid, n.o.s. (2-propanol mixture)
IATA-DGR: Flammable liquid, n.o.s. (2-propanol mixture)

14.3 Transport Hazard Class(es)
ADR/RID: 3 IMDG: 3 IATA-DGR: 3

14.4 Packing Group
ADR/RID: III IMDG: III IATA-DGR: III

14.5 Environmental Hazards

ADR/RID: no

IMDG: marine pollutant: no

IATA-DGR: no

Contains only small quantities of hazardous substances.

SECTION 15 – REGULATORY INFORMATION

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

Not necessary for these small amounts.

SECTION 16 – OTHER INFORMATION

Date of Issue: 16 July 2021

Date of Revision: 11 April 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.