

SECTION 1 – IDENTIFICATION

1.1 Product Identifier:

Product No: KIT-9101-125ml
Product Name: SEPa Plant DNA Isolation Reagent Kit, 125 mL

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 125 mL Plant Lysis Buffer
1x 15 mL Tris Buffer
1x 50 mL Diluent Solution
1x 1.5 mL Sodium Acetate Solution
3x 1 mL Binding Enhancer
1x 600 µL RNase A Solution*

1.2 Recommended use of the chemical and restrictions on use:

To extract genomic DNA from plant tissues.

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

WARNING

Hazard Identification

H315

H319

Hazard Classification; Hazard Statement

Skin Irrit. 2; Causes skin irritation.

Eye Irrit. 2A; Causes serious eye irritation.

2.1 GHS Classification of the Substance or Mixture

125 mL Plant Lysis Buffer



Signal word

Warning

Hazard Identification

H319

Hazard Classification; Hazard Statement

Eye Irrit. 2A; Causes serious eye irritation

15 mL Tris Buffer

Do not need labelling as hazardous

Signal word

-

No hazard class

50 mL Diluent Solution

Do not need labelling as hazardous

Signal word

-

No hazard class

1x 1.5 mL Sodium Acetate Solution

Do not need labelling as hazardous

Signal word

-

No hazard class

3x 1 mL Binding Enhancer



Signal word

Warning

Hazard Identification

H315

H319

Hazard Classification; Hazard Statement

Skin Irrit. 2; Causes skin irritation

Eye Irrit. 2; Causes serious eye irritation

600 µL RNase A Solution

Do not need labelling as hazardous

Signal word

-

No hazard class

2.2 Label Elements, including precautionary statements

125 mL Plant Lysis Buffer



Signal word: WARNING

15 mL Tris Buffer

Do not need labelling as hazardous.

Signal word: -

50 mL Diluent Solution

Do not need labelling as hazardous.

Signal word: -

1.5 mL Sodium Acetate Solution

Do not need labelling as hazardous.

Signal word: -

1 mL Binding Enhancer



Signal word: WARNING

600 µL RNase A Solution

Do not need labelling as hazardous.

Signal word: -

Precautionary statement(s):

Prevention

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ eye protection/ face protection.

Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 Take off contaminated clothing and wash 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

This mixture has not been tested to determine the overall health hazard.

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

125 mL Plant Lysis Buffer

Chemical: hexadecyltrimethylammonium bromide CAS No.: 57-09-0
GHS Classification: H302, Acute Tox. 4 (Oral); H315, Skin Irrit. 2; H318, Eye Dam. 1; H335, STOT SE 3; H373, STOT RE 2; H400, Aquatic Acute 1
Formula: $\text{CH}_3(\text{CH}_2)_{15}\text{N}(\text{Br})(\text{CH}_3)$
Pseudonym: cetyltrimethylammonium bromide
EC No.: 200-311-3
Concentration: 1 to <3%
acc. CLP (GHS): H319, Eye Irrit. 2A

15 mL Tris Buffer

No component or ingredient is contributing to hazard.

50 mL Diluent Solution

No component or ingredient is contributing to hazard.

1.5 mL Sodium Acetate Solution

No component or ingredient is contributing to hazard.

1 mL Binding Enhancer

Chemical: 4-Azaoctamethylenediamine CAS No.: 124-20-9
GHS Classification: H314, Skin Corr. 1B, H318, Eye Dam.1
Formula: $\text{NH}_2(\text{CH}_2)_3\text{NH}(\text{CH}_2)_4\text{NH}_2$
Pseudonym: 1,8-Diamino-4-azaoctane, N-(3-Aminopropyl)-1,4-diaminobutane
EC No.: 204-689-0
Concentration: 1 to <3%
acc. CLP (GHS): H315, Skin Irrit. 2, H319, Eye Irrit. 2

600 µL RNase A Solution

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

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. 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

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

125 mL Plant Lysis Buffer

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

15 mL Tris Buffer

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

50 mL Diluent Solution

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

1.5 mL Sodium Acetate Solution

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

1 mL Binding Enhancer

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

600 µL RNase A Solution

Chemical: Glycerin

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

125 mL Plant Lysis Buffer

Appearance: liquid	Colour: Colourless	Odour: Odourless
pH: No data available	Relative density: 1.07 g/mL at 20°C	

15 mL Tris Buffer

Appearance: liquid	Colour: Colourless	Odour: Odourless
pH: 8.4 – 9.0 (Neat, 25 °C)	Specific gravity: No data available	

50 mL Diluent Solution

Appearance: liquid	Colour: Colourless	Odour: Odourless
pH: 8.4 – 9.0 (Neat, 25 °C)	Specific gravity: No data available	

1.5 mL Sodium Acetate Solution

Appearance: liquid	Colour: Colourless	Odour: Odourless
pH: 5.0 – 5.4 (Neat, 25 °C)	Specific gravity: No data available	

1 mL Binding Enhancer

Appearance: liquid	Colour: Colourless	Odour: Odourless
pH: No data available	Relative density: 1.00 g/mL at 20°C	

600 µL RNase A Solution

Appearance: liquid	Colour: Colourless	Odour: Odourless
pH: No data available	Specific gravity: 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

Data not available.

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:

Plant Lysis Buffer

Acute toxicity

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Possible symptoms: Mucosal irritations

Skin corrosion/irritation

Mixture causes skin irritation.

Serious eye damage/eye irritation

Mixture causes serious eye irritation.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Acute oral toxicity - Irritations of mucous membranes in the mouth, pharynx, esophagus and gastrointestinal tract.

Acute inhalation toxicity - Possible symptoms: mucosal irritations

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.

SECTION 12 – ECOLOGICAL 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. 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.