

Material Safety Data Sheet

1. COMPANY AND PRODUCT IDENTIFICATION

1.1 Product identifiers

Product Name	AccuFFPE DNA prep kit	
Product Number	ACN03.50	
Component	10 ml	Buffer TB
	10 ml	Buffer TL
	1 ml	Proteinase K (PK)
	11 ml	Buffer W1
	7.5ml	Buffer W2
	5 ml	Buffer EB
	2 pack	Binding Columns (25/pack)
	2 pack	Collection tubes (25/pack)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals, Manufacture of substances.

This product is for R&D use only. Not for drug, household or other uses.

1.3 Details of the supplier of the safety data sheet

Company: AccuGene Co., Ltd

Address: IBS Tower, 17F, Central-ro 263, Yeonsu-gu, Incheon, South Korea 22006

TEL: +82 32 551 3629

FAX: +82 32 555 3629

E.mail: accugene@accugenelab.co.kr

1.4 Emergency telephone number

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call: +82 32 551 3629

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture


Product Description: Mixture



Classification according to Regulation (EC) No 1272/2008

Hazard classes	categories
Acute toxicity, Oral	Category 4
Acute toxicity, Inhalation	Category 4
Skin irritation	Category 2
Eye irritation	Category 2
Flammable liquids	Category 2

2.2 Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

Component	GHS pictograms	Hazard identification
Buffer TB	 GHS07 WARNING	<p>Hazard statement(s) H302 + H332 Harmful if swallowed or if inhaled H315 Causes skin irritation. H319 Causes serious eye irritation.</p> <p>Precautionary statement(s) P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P280 Wear eye protection/ face protection. P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.Rinse mouth. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/</p>

		<p>attention.</p> <p>Supplemental Hazard Statements</p> <p>none</p>
Buffer TL	 <p>GHS07 WARNING</p>	<p>Hazard statement(s)</p> <p>H302 + H332 Harmful if swallowed or if inhaled</p> <p>H315 Causes skin irritation.</p> <p>H319 Causes serious eye irritation.</p> <p>Precautionary statement(s)</p> <p>P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.</p> <p>P280 Wear eye protection/ face protection.</p> <p>P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.Rinse mouth.</p> <p>P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.</p> <p>P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337 + P313 If eye irritation persists: Get medical advice/ attention.</p> <p>Supplemental Hazard Statements</p> <p>none</p>
Proteinase K	No declaration necessary	
Buffer W1	 <p>GHS07 WARNING</p>	<p>Hazard statement(s)</p> <p>H302 + H332 Harmful if swallowed or if inhaled</p> <p>H315 Causes skin irritation.</p> <p>H319 Causes serious eye irritation.</p> <p>Precautionary statement(s)</p> <p>P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.</p> <p>P280 Wear eye protection/ face protection.</p> <p>P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.Rinse mouth.</p> <p>P304 + P340 + P312 IF INHALED: Remove person to fresh</p>

	<p>air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.</p> <p>P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337 + P313 If eye irritation persists: Get medical advice/attention.</p> <p>Supplemental Hazard Statements none</p>
Buffer W1	No declaration necessary
Buffer EB	No declaration necessary
Binding Columns	No declaration necessary
Collection tubes	No declaration necessary

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients

Component	Chemical substance/mixture	Conc.(%)	Classification
Buffer TB	Guanidine hydrochloride CH ₆ CIN ₃ CAS No.: 50-01-1	40 ~ 70	H302, H332, H315, H319
Buffer TL	Sodium Dodecyl Sulfate	≤10	H302, H332, H315,

	H12H25SO4Na CAS No.: 50-01-1		H319
Proteinase K	No hazardous ingredients		
Buffer W1	Guanidine hydrochloride CH ₆ CIN ₃ CAS No.: 50-01-1	20 ~ 40	H302, H332, H315, H319
Buffer W2	No hazardous ingredients		
Buffer EB	No hazardous ingredients		
Binding Columns	No declaration necessary		
Collection tubes	No declaration necessary		

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.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (section

2.2).

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x), Hydrogen chloride gas

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Use good laboratory procedures; avoid eye and skin contact.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end uses

No further relevant information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin 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 have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Component	Appearance	Colour	Odour	pH	Specific Gravity	Flash point	Water solubility
Buffer TB	Liquid	colourless	odourless	6	no data available	no data available	no data available
Buffer TL	Liquid	colourless	odourless	8	no data available	no data available	no data available
Proteinase K	Liquid	colourless	odourless	no data available	no data available	no data available	no data available
Buffer W1	Liquid	colourless	odourless	4.5	no data available	no data available	no data available
Buffer W2	Liquid	colourless	odourless	7.5	no data available	no data available	no data available

Buffer EB	Liquid	colourless	odourless	9	no data available	no data available	no data available
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9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents, Strong acids, Organic materials

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Hydrogen chloride gas In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Acute toxicity

LD50 Oral - Rat - 475 mg/kg

Remarks: Behavioral: Altered sleep time (including change in righting reflex)

Behavioral: Excitement. Diarrhoea

LD50 Oral - Mouse - 571 mg/kg

Remarks: Behavioral: Altered sleep time (including change in righting reflex)

Behavioral: Muscle contraction or spasticity.

Behavioral: Irritability.

LD50 Oral - Rat - 1,120 mg/kg

11.2 Skin corrosion/irritation

Skin – Rabbit

Result: Skin irritation

11.3 Serious eye damage/eye irritation

Eyes – Rabbit

Result: Irritating to eyes.

11.4 Respiratory or skin sensitization

No data available

11.5 Germ cell mutagenicity

Not mutagenic in Ames Test

11.6 Carcinogenicity

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

11.7 Reproductive toxicity

No data available

11.8 Specific target organ toxicity - single exposure

No data available

11.9 Specific target organ toxicity - repeated exposure

No data available

11.10 Aspiration hazard

No data available

11.11 Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

11.12 Signs and Symptoms of Exposure

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

11.13 Additional Information

RTECS: MF4300000

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

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 - *Leuciscus idus* (Golden orfe) - 1,759 mg/l

12.2 Persistence and degradability

Biodegradability Result: - Not readily biodegradable.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

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

Contaminated packaging

Dispose of as unused product

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: - IMDG: - IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

No data available.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

No data available

15.2 Chemical Safety Assessment

No data available

16. OTHER INFORMATION

16.1 List of references

16.2 Date of initial preparation: 2019.11.08

16.3 Rev. number: 0

16.4 Further information

Full text of H-Statements referred to under sections 2 and 3.

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H302 + H332	Harmful if swallowed or if inhaled
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

Further information

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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. It does not represent any guarantee of the properties of the product. AccuGene Co., Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.accugenelab.co.kr and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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