Kit Name: AdvanceBio Endo F2, recombinant

**Kit PN: GKE-5008** 

This product is a multi-level kit, composed of the following modules and individual chemical components:

## **Kit Components**

Kit Component Part Number	Kit Component Name	Qty
GKE-5008	AdvanceBio Endo F2, recombinant, 6 mU	1 Vial
WS0161	5x Reaction Buffer, 1 ml	1 Vial

SDSs for each component follow this cover sheet.

## **Transportation Information for the Kit:**

#### **Proper Shipping Names:**

DOT	IATA/ICAO	China	
Not Regulated	Not Regulated	Not Regulated	





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### 1 Identification

Product identifier

· Product name: AdvanceBio Endo F2, recombinant

· Product Code: GKE-5008

· Application of the substance / the mixture Reagents and Standards for Analytical Chemical Laboratory Use

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Agilent Technologies 5301 Stevens Creek Blvd Santa Clara, CA 95051, USA

• **Email:** pdl-msds\_author@agilent.com • **Phone number:** 800-227-9770

Emergency telephone number: CHEMTREC®: 1-800-424-9300

### 2 Hazard(s) identification

· Classification of the substance or mixture

The product is not classified, according to the Globally Harmonized System (GHS).

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Precautionary statements

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a doctor if you feel unwell.

If on skin: Wash with plenty of soap and water.

IF INHALED: Call a doctor if you feel unwell.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
- · NFPA ratings (scale 0 4)



Health = 0 Fire = 0 Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 0 Fire = 0 Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment
- · PBT: Not applicable.

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Product name: AdvanceBio Endo F2, recombinant

· **vPvB**: Not applicable.

(Contd. of page 1)

## 3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.
- Dangerous components: Void

#### 4 First-aid measures

- Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · **After swallowing:** If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

## **5 Fire-fighting measures**

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- **Advice for firefighters**
- · Protective equipment: No special measures required.

#### 6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures
- Wear protective gloves / eye protection / face protection.
- **Environmental precautions:** Dilute with plenty of water.
- Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

PAC-1:		
127-09-3	sodium acetate	11 mg/m³
26628-22-8	sodium azide	0.026 mg/m³
PAC-2:		
127-09-3	sodium acetate	120 mg/m³
26628-22-8	sodium azide	0.29 mg/m <sup>3</sup>
		(Contd. on page 3)

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Product name: AdvanceBio Endo F2, recombinant

		(Contd. of page 2)
PAC-3:		
127-09-3	sodium acetate	700 mg/m³
26628-22-8	odium azide	5.3 mg/m³

### 7 Handling and storage

- Handling:
- · Precautions for safe handling Wear protective gloves / eye protection / face protection.
- Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Specific end use(s) No further relevant information available.

### 8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit. The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the remaining constituent has no known exposure limits.

At this time, the other constituents have no known exposure limits.

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- Personal protective equipment:
- General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
- Breathing equipment: Not required.
- Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- · Material of gloves Wear suitable gloves.
- Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Wear eye protection / face protection.

### 9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:

Form: Fluid
Color: Colorless
Odor: Characteristic

(Contd. on page 4)

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Product name: AdvanceBio Endo F2, recombinant

		(Contd. of pag
Odor threshold:	Not determined.	
pH-value at 20 °C (68 °F):	4.5	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	Undetermined.	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Decomposition temperature:	Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)	
Density:	Not determined.	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Fully miscible.	
Partition coefficient (n-octanol/wat	er): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Solvent content:		
Water:	99.7 %	
VOC content:	0.00 %	
Other information	No further relevant information available.	

## 10 Stability and reactivity

- · Reactivity No further relevant information available.
- **Chemical stability**
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

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Product name: AdvanceBio Endo F2, recombinant

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### 11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
- Primary irritant effect:
- · on the skin: May be harmful in contact with skin.
- on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

## 12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes: Not hazardous for water.
- Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- Other adverse effects No further relevant information available.

#### 13 Disposal considerations

- · Waste treatment methods
- Recommendation: Dispose of contents/container in accordance with local/regional/national/international regulations.
- Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

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Product name: AdvanceBio Endo F2, recombinant

(Contd. of page 5)

Transport information	
· UN-Number · DOT, ADN, IMDG, IATA	not regulated
· UN proper shipping name · DOT, ADN, IMDG, IATA	not regulated
Transport hazard class(es)	
DOT, ADN, IMDG, IATA	not regulated
Packing group DOT, IMDG, IATA	not regulated
Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	F Not applicable.
UN "Model Regulation":	not regulated

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Section 355 (extremely hazardous substances):

  26628-22-8 | sodium azide

   Section 313 (Specific toxic chemical listings):

  26628-22-8 | sodium azide
  - TSCA (Toxic Substances Control Act):

    7647-14-5 sodium chloride

    127-09-3 sodium acetate

    26628-22-8 sodium azide

    7732-18-5 water, distilled, conductivity or of similar purity
  - · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

(Contd. on page 7)

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Product name: AdvanceBio Endo F2, recombinant

(Contd. of page 6)

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

26628-22-8 sodium azide

A4

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · GHS label elements Void
- · Hazard pictograms Void
- Signal word Void
- · Hazard statements Void
- · Precautionary statements

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a doctor if you feel unwell.

If on skin: Wash with plenty of soap and water.

IF INHALED: Call a doctor if you feel unwell.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## 16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.



Revision Date: 05/07/2019 Issue Date: 04/18/2019

#### 1 Identification

· Product identifier

· Product name: 5X Reaction Buffer

· Product Code: WS0161

· Application of the substance / the mixture Reagents and Standards for Analytical Chemical Laboratory Use

Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Agilent Technologies 5301 Stevens Creek Blvd Santa Clara, CA 95051, USA

• **Email:** pdl-msds\_author@agilent.com • **Phone number:** 800-227-9770

· Emergency telephone number: CHEMTREC®: 1-800-424-9300

## 2 Hazard(s) identification

· Classification of the substance or mixture

The product is not classified, according to the Globally Harmonized System (GHS).

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin: Wash with plenty of soap and water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a doctor if you feel unwell.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Classification system:
- NFPA ratings (scale 0 4)



 $\begin{aligned} & \text{Health} = 0 \\ & \text{Fire} = 0 \\ & \text{Reactivity} = 0 \end{aligned}$ 

· HMIS-ratings (scale 0 - 4)



Health = 0 Fire = 0 Reactivity = 0

- · Other hazards
- Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

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Product name: 5X Reaction Buffer

(Contd. of page 1)

### 3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.
- · Dangerous components: Void

#### 4 First-aid measures

- Description of first aid measures
- · **General information:** No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

## 5 Fire-fighting measures

- Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

#### 6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
- Wear protective gloves / eye protection / face protection.
- **Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

- Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Protective Action Criteria for Chemicals

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•	$\boldsymbol{\nu}$	Δ		

127-09-3 sodium acetate 11 mg/m<sup>3</sup>

PAC-2:

127-09-3 sodium acetate 120 mg/m<sup>3</sup>

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**Product name:** 5X Reaction Buffer

(Contd. of page 2)

· PAC-3:

127-09-3 sodium acetate 700 mg/m³

### 7 Handling and storage

- · Handling:
- · Precautions for safe handling Wear protective gloves / eye protection / face protection.
- Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- Specific end use(s) No further relevant information available.

### 8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
- · Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- · Material of gloves Wear suitable gloves.
- · Penetration time of glove material
- The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection: Wear eye protection / face protection.

### 9 Physical and chemical properties

- Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid
Color: Colorless
Odor: Characteristic
Odor threshold: Not determined.

· pH-value at 20 °C (68 °F): 4.5

(Contd. on page 4)

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Product name: 5X Reaction Buffer

	(Contd. of pag
Change in condition Melting point/Melting range: Boiling point/Boiling range:	Undetermined. 100 ℃ (212 ℉)
Flash point:	Not applicable.
Flammability (solid, gaseous):	Not applicable.
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits: Lower: Upper:	Not determined. Not determined.
Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
Density: Relative density Vapor density Evaporation rate	Not determined. Not determined. Not determined. Not determined. Not determined.
Solubility in / Miscibility with Water:	Fully miscible.
Partition coefficient (n-octanol/water	er): Not determined.
Viscosity: Dynamic: Kinematic:	Not determined. Not determined.
Solvent content: Water: VOC content:	96.0 % 0.00 %
Solids content: Other information	8.0 % No further relevant information available.

## 10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

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Product name: 5X Reaction Buffer

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### 11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: May be harmful in contact with skin.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

## 12 Ecological information

- Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

### 13 Disposal considerations

- · Waste treatment methods
- \* Recommendation: Dispose of contents/container in accordance with local/regional/national/international regulations.
- Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

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Product name: 5X Reaction Buffer

· Recommended cleansing agent: Water, if necessary with cleansing agents.

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14 Transport information	
· UN-Number · DOT, ADN, IMDG, IATA	not regulated
· UN proper shipping name · DOT, ADN, IMDG, IATA	not regulated
· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA · Class	not regulated
· Packing group · DOT, IMDG, IATA	not regulated
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.
· UN "Model Regulation":	not regulated

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

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Product name: 5X Reaction Buffer

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#### · TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin: Wash with plenty of soap and water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a doctor if you feel unwell.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### 16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

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