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#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

| 1.1 Product identifier |              |     |  |  |  |
|------------------------|--------------|-----|--|--|--|
| Trade name             | : KAPA Frag  | Kit |  |  |  |
| Product code           | : 0796251700 | 01  |  |  |  |

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

Recommended restrictions : For professional users only. on use

#### 1.3 Details of the supplier of the safety data sheet

| Company                     | : Roche Diagnostics Deutsch                           | land GmbH                          |
|-----------------------------|---|------------------------------------|
|                             | Sandhoferstrasse 116<br>68305 Mannheim<br>Deutschland |                                    |
| Telephone                   | : +496217590  |                                    |
| Telefax                     | : +496217592890                                       |                                    |
| Responsible Department      | : +49(0)621-759-4223                                  |                                    |
| E-mail address              | : info.dia-sds@roche.com                              |                                    |
| 1.4 Emergency telephone num | nber  |                                    |
| In case of emergencies:     | : Central Works Security<br>Roche Diagnostics GmbH    | +49(0)621-759-2203                 |
| Centre for detoxification:  | : Mainz<br>Munich                                     | +49(0)6131-19240<br>+49(0)89-19240 |

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

The product is a kit consisting of individual ingredients. The classification of the ingredients can be obtained from section 3. Section Label elements contains the resulting labelling for the kit.

#### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

#### **Additional Labelling**

EUH210 Safety data sheet available on request.



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#### 2.3 Other hazards

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### **SECTION 3: Composition/information on ingredients**

### KAPA Frag Stop Solution

#### Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

#### Components

| Chemical name | CAS-No.             | Classification     | Concentration   |
|---------------|---------------------|--------------------|-----------------|
|               | EC-No.              |                    | (% w/w)         |
|               | Index-No.           |                    |                 |
|               | Registration number |                    |                 |
| edetic acid   | 60-00-4             | Eye Irrit. 2; H319 | >= 1,0 - < 10,0 |
|               | 200-449-4           |                    |                 |
|               | 607-429-00-8        |                    |                 |
|               | 01-2119486399-18    |                    |                 |

For explanation of abbreviations see section 16.

### KAPA Frag Enzyme (5X)

#### Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

#### Components

| Chemical name                    | CAS-No.             | Classification      | Concentration |
|----------------------------------|---------------------|---------------------|---------------|
|                                  | EC-No.              |                     | (% w/w)       |
|                                  | Index-No.           |                     |               |
|                                  | Registration number |                     |               |
| Nucleotidyltransferase, deoxyri- | 9012-90-2           | Not classified      | < 0,1         |
| bonucleate                       | 232-741-2           |                     |               |
|                                  |                     |                     |               |
| Nuclease, deoxyribo-             | 9003-98-9           | Resp. Sens. 1; H334 | < 0,1         |
|                                  | 232-667-0           | Skin Sens. 1; H317  |               |
|                                  |                     |                     |               |

For explanation of abbreviations see section 16.

### KAPA Frag Conditioning Solution

#### Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.



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### Components

Remarks : No hazardous ingredients

For explanation of abbreviations see section 16.

### KAPA Frag Buffer (10X)

#### Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

#### **Components**

| Remarks      | : | No hazardous ingredients |
|--------------|---|--------------------------|
| literinarite | • | ne nazaračač mgrčaterite |

For explanation of abbreviations see section 16.

#### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures General advice : Do not leave the victim unattended. If inhaled Move to fresh air. • If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician. In case of skin contact If on skin, rinse well with water. : Immediately flush eye(s) with plenty of water. In case of eye contact : Remove contact lenses. Protect unharmed eye. If eye irritation persists, consult a specialist. If swallowed Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Rinse mouth with water.

### 4.2 Most important symptoms and effects, both acute and delayed

None known.

#### 4.3 Indication of any immediate medical attention and special treatment needed

The first aid procedure should be established in consultation Treatment 2 with the doctor responsible for industrial medicine.



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### **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

| Suitable extinguishing media                     | :   | Use extinguishing measures that are appropriate to local cir-<br>cumstances and the surrounding environment.   |  |  |  |
|--|-----|--|--|--|--|
| 5.2 Special hazards arising from                 | the | e substance or mixture   |  |  |  |
| Specific hazards during fire-<br>fighting        | :   | No information available.  |  |  |  |
| 5.3 Advice for firefighters                      |     |  |  |  |  |
| Special protective equipment<br>for firefighters | :   | Wear self-contained breathing apparatus for firefighting if necessary.   |  |  |  |
| Further information                              | :   | Standard procedure for chemical fires.<br>Use extinguishing measures that are appropriate to local cir-<br>cumstances and the surrounding environment. |  |  |  |

#### **SECTION 6: Accidental release measures**

| • • •   | re equipment and emergency procedures<br>Refer to protective measures listed in sections 7 and 8.   |  |  |
|---|---|--|--|
| <b>6.2 Environmental precautions</b><br>Environmental precautions :   | Local authorities should be advised if significant spillages cannot be contained.   |  |  |
| 6.3 Methods and material for conta<br>Methods for cleaning up :   | <b>inment and cleaning up</b><br>Wipe up with absorbent material (e.g. cloth, fleece).<br>Keep in suitable, closed containers for disposal. |  |  |
| <b>6.4 Reference to other sections</b><br>Treat recovered material as described in the section "Disposal considerations". |   |  |  |
| SECTION 7: Handling and storage   |   |  |  |
| 7.1 Precautions for safe handling   | 7.1 Precautions for safe handling   |  |  |

| Advice on safe handling                         | : | For personal protection see section 8.<br>Smoking, eating and drinking should be prohibited in the ap-<br>plication area. |
|---|---|---|
| Advice on protection against fire and explosion | : | Normal measures for preventive fire protection.   |
| Hygiene measures                                | : | Handle in accordance with good industrial hygiene and safety practice.  |



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#### 7.2 Conditions for safe storage, including any incompatibilities

| Requirements for storage areas and containers  | : Electrical installations / working materials must co<br>the technological safety standards. | mply with |
|--|---|-----------|
| Further information on stor-<br>age conditions | : See label, package insert or internal guidelines  |           |
| Advice on common storage                       | : No materials to be especially mentioned.  |           |
| Storage class (TRGS 510)                       | : 12, Non Combustible Liquids   |           |
| Further information on stor-<br>age stability  | : No decomposition if stored and applied as directe   | d.        |
| 7.3 Specific end use(s)                        |   |           |

| Specific use(s) | : Laboratory chemicals |
|-----------------|------------------------|
|                 |                        |

#### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

### KAPA Frag Stop Solution

#### **Occupational Exposure Limits**

| Components  | CAS-No. | Value type (Form of exposure) | Control parameters | Basis  |
|-------------|---------|-------------------------------|--------------------|--|
| edetic acid | 60-00-4 | IOEL                          | 1,5 mg/m3          | Roche Indus-<br>trial Hygiene<br>Committee<br>(RIHC) |

### KAPA Frag Enzyme (5X)

#### **Occupational Exposure Limits**

| Components         | CAS-No.  | Value type (Form      | Control parameters           | Basis         |
|--------------------|--|-----------------------|------------------------------|---------------|
|                    |  | of exposure)          |                              |               |
| glycerol           | 56-81-5  | AGW (Inhalable        | 200 mg/m3                    | DE TRGS       |
|                    |  | fraction)             | -                            | 900           |
|                    | Peak-limit: ex   | cursion factor (categ | ory): 2;(I)                  |               |
|                    | Further inform   | nation: When there is | s compliance with the OEL ar | nd biological |
|                    | tolerance values, there is no risk of harming the unborn child |                       |                              |               |
| Nucleotidyltrans-  | 9012-90-2  | IOEL                  | 0,00006 mg/m3                | Roche Indus-  |
| ferase, deoxyribo- |  |                       |                              | trial Hygiene |
| nucleate           |  |                       |                              | Committee     |
|                    |  |                       |                              | (RIHC)        |
| Nuclease, deoxyri- | 9003-98-9  | IOEL                  | 0,00006 mg/m3                | Roche Indus-  |
| bo-                |  |                       | _                            | trial Hygiene |
|                    |  |                       |                              | Committee     |
|                    |  |                       |                              | (RIHC)        |



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### KAPA Frag Conditioning Solution

Contains no substances with occupational exposure limit values.

### KAPA Frag Buffer (10X)

Contains no substances with occupational exposure limit values.

#### 8.2 Exposure controls

| <b>Engineering measures</b><br>No data available                     |   |
|--|---|
| Personal protective equipment  | it  |
| Eye protection   | Safety glasses  |
|  | Use eye protection according to EN 166.   |
| Hand protection<br>Material<br>Break through time<br>Glove thickness | In case of contact through splashing:<br>Nitrile rubber<br>> 30 min<br>> 0,11 mm  |
| Material<br>Break through time<br>Glove thickness                    | In case of full contact:<br>butyl-rubber<br>> 480 min<br>> 0,4 mm   |
| Remarks  | The selected protective gloves have to satisfy the specifica-<br>tions of Regulation (EU) 2016/425 and the standard EN 374<br>derived from it. This recommendation is only valid for the<br>product mentioned in the safety data sheet and provided by<br>us and for the application specified by us. Please observe the<br>instructions regarding permeability and breakthrough time<br>which are provided by the supplier of the gloves. Also take<br>into consideration the specific local conditions under which<br>the product is used, such as the danger of cuts, abrasion,<br>and the contact time. The suitability for a specific workplace<br>should be discussed with the producers of the protective<br>gloves. |
| Skin and body protection   | Protective suit   |
| Respiratory protection   | No personal respiratory protective equipment normally re-<br>quired.  |

#### **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties KAPA Frag Stop Solution

#### Physical state : liquid



## NAPA Frag

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| Colour  | : | colourless          |
|---|---|---------------------|
| Odour   | : | odourless           |
| Odour Threshold                                     | : | No data available   |
| Melting point/range                                 | : | No data available   |
| Boiling point/boiling range                         | : | No data available   |
| Upper explosion limit / Upper<br>flammability limit | : | No data available   |
| Lower explosion limit / Lower<br>flammability limit | : | No data available   |
| Flash point   | : | does not flash      |
| Auto-ignition temperature                           | : | No data available   |
| Decomposition temperature                           | : | No data available   |
| рН  | : | 8,0                 |
| Viscosity<br>Viscosity, dynamic                     | : | No data available   |
| Viscosity, kinematic                                | : | No data available   |
| Solubility(ies)<br>Water solubility                 | : | completely miscible |
| Solubility in other solvents                        | : | No data available   |
| Partition coefficient: n-<br>octanol/water          | : | No data available   |
| Vapour pressure                                     | : | No data available   |
| Relative density                                    | : | No data available   |
| Density   | : | 1,020 g/cm3         |
| Relative vapour density                             | : | No data available   |

### KAPA Frag Enzyme (5X)

| Physical state | : | liquid            |
|----------------|---|-------------------|
| Colour         | : | colourless        |
| Odour          | : | No data available |

### SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 KAPA Frag Kit

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| Odour Threshold                                     | : | No data available   |
|---|---|---------------------|
| Melting point/range                                 | : | No data available   |
| Boiling point/boiling range                         | : | No data available   |
| Upper explosion limit / Upper<br>flammability limit | : | No data available   |
| Lower explosion limit / Lower<br>flammability limit | : | No data available   |
| Flash point   |   | does not flash      |
| Auto-ignition temperature                           | : | No data available   |
| Decomposition temperature                           | : | No data available   |
| рН  | : | 7,8                 |
| Viscosity<br>Viscosity, dynamic                     | : | No data available   |
| Viscosity, kinematic                                | : | No data available   |
| Solubility(ies)<br>Water solubility                 | : | completely miscible |
| Solubility in other solvents                        | : | No data available   |
| Partition coefficient: n-<br>octanol/water          | : | No data available   |
| Vapour pressure                                     | : | No data available   |
| Relative density                                    | : | No data available   |
| Density   | : | 1,090 g/cm3         |
| Relative vapour density                             | : | No data available   |

### KAPA Frag Conditioning Solution

| Physical state      | : | liquid            |
|---------------------|---|-------------------|
| Colour              | : | colourless        |
| Odour               | : | odourless         |
| Odour Threshold     | : | No data available |
| Melting point/range | : | No data available |
|                     |   |                   |





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| Boiling point/boiling range                         | : | No data available   |
|---|---|---------------------|
| Upper explosion limit / Upper<br>flammability limit | : | No data available   |
| Lower explosion limit / Lower<br>flammability limit | : | No data available   |
| Flash point   |   | does not flash      |
| Auto-ignition temperature                           | : | No data available   |
| Decomposition temperature                           | : | No data available   |
| рН  | : | 9,0                 |
| Viscosity<br>Viscosity, dynamic                     | : | No data available   |
| Viscosity, kinematic                                | : | No data available   |
| Solubility(ies)<br>Water solubility                 | : | completely miscible |
| Solubility in other solvents                        | : | No data available   |
| Partition coefficient: n-<br>octanol/water          | : | No data available   |
| Vapour pressure                                     | : | No data available   |
| Relative density                                    | : | No data available   |
| Density   | : | 0,990 g/cm3         |
| Relative vapour density                             | : | No data available   |
|   |   |                     |

## KAPA Frag Buffer (10X)

| Physical state              | : | liquid                       |
|-----------------------------|---|------------------------------|
| Colour                      | : | colourless                   |
| Odour                       | : | odourless                    |
| Odour Threshold             | : | No data available            |
| Melting point/range         | : | No data available            |
| Boiling point/boiling range | : | No data available            |
| Flammability                | : | Does not sustain combustion. |

### SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 KAPA Frag Kit



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| Upper explosion limit / Upper<br>flammability limit | : | No data available   |
|---|---|---------------------|
| Lower explosion limit / Lower<br>flammability limit | : | No data available   |
| Flash point   |   | does not flash      |
| Auto-ignition temperature                           | : | No data available   |
| Decomposition temperature                           | : | No data available   |
| рН  | : | 8,3                 |
| Viscosity<br>Viscosity, dynamic                     | : | No data available   |
| Viscosity, kinematic                                | : | No data available   |
| Solubility(ies)<br>Water solubility                 | : | completely miscible |
| Solubility in other solvents                        | : | No data available   |
| Partition coefficient: n-<br>octanol/water          | : | No data available   |
| Vapour pressure                                     | : | No data available   |
| Relative density                                    | : | No data available   |
| Density   | : | 0,998 g/cm3         |
| Relative vapour density                             | : | No data available   |
|   |   |                     |

### 9.2 Other information KAPA Frag Stop Solution

| Explosives             | : | Not explosive  |
|------------------------|---|--|
| Oxidizing properties   | : | The substance or mixture is not classified as oxidizing. |
| Flammability (liquids) | : | Does not sustain combustion.                             |
|                        |   | The product is not flammable.                            |
| Self-ignition          | : | Not applicable   |
| Evaporation rate       | : | No data available  |



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### KAPA Frag Enzyme (5X)

| Explosives             | : | Not explosive  |
|------------------------|---|--|
| Oxidizing properties   | : | The substance or mixture is not classified as oxidizing. |
| Flammability (liquids) | : | Does not sustain combustion.                             |
|                        |   | The product is not flammable.                            |
| Self-ignition          | : | Not applicable   |
| Evaporation rate       | : | No data available  |

### KAPA Frag Conditioning Solution

| Explosives             | : | Not explosive  |
|------------------------|---|--|
| Oxidizing properties   | : | The substance or mixture is not classified as oxidizing. |
| Flammability (liquids) | : | Does not sustain combustion.                             |
|                        |   | The product is not flammable.                            |
| Self-ignition          | : | Not applicable   |
| Evaporation rate       | : | No data available  |

### KAPA Frag Buffer (10X)

| Explosives             | : | Not explosive  |
|------------------------|---|--|
| Oxidizing properties   | : | The substance or mixture is not classified as oxidizing. |
| Flammability (liquids) | : | Does not sustain combustion.                             |
| Self-ignition          | : | Not applicable   |
| Evaporation rate       | : | No data available  |

### **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

#### 10.2 Chemical stability

Stable under normal conditions.



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#### 10.3 Possibility of hazardous reactions

| Hazardous reactions          | :      | No dangerous reaction known under conditions of normal use.                           |
|------------------------------|--------|---|
|                              |        | Stable under recommended storage conditions.<br>No hazards to be specially mentioned. |
| 10.4 Conditions to avoid     |        |   |
| No data available            |        |   |
| 10.5 Incompatible materials  |        |   |
| Materials to avoid           | :      | Strong oxidizing agents   |
| 10.6 Hazardous decomposition | n prod | lucts   |
| No decomposition if stored a | and ap | plied as directed.  |

#### **SECTION 11: Toxicological information**

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 KAPA Frag Stop Solution

#### Acute toxicity

Not classified based on available information.

#### **Components:**

edetic acid:

Acute oral toxicity

: LD50 (Rat, male and female): 4.500 mg/kg Method: OECD Test Guideline 401

#### Skin corrosion/irritation

Not classified based on available information.

#### Components:

#### edetic acid:

| Species<br>Exposure time | - | Rabbit<br>20 h                                |
|--------------------------|---|---|
| Method<br>Result         | : | OECD Test Guideline 404<br>No skin irritation |

#### Serious eye damage/eye irritation

Not classified based on available information.

#### **Components:**

#### edetic acid:

| Species | : | Rabbit                  |
|---------|---|-------------------------|
| Method  | : | OECD Test Guideline 405 |
| Result  | : | Irritating to eyes.     |



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#### Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.

#### **Respiratory sensitisation**

Not classified based on available information.

#### **Components:**

#### edetic acid:

| Test Type  | : | Maximisation Test                    |
|------------|---|--------------------------------------|
| Species    | : | Guinea pig                           |
| Assessment | : | Does not cause skin sensitisation.   |
| Method     | : | OECD Test Guideline 406              |
| Remarks    | : | Based on data from similar materials |
|            |   |                                      |

#### Germ cell mutagenicity

Not classified based on available information.

#### Carcinogenicity

Not classified based on available information.

#### **Reproductive toxicity**

Not classified based on available information.

#### STOT - single exposure

Not classified based on available information.

#### **STOT - repeated exposure**

Not classified based on available information.

#### Aspiration toxicity

Not classified based on available information.

#### KAPA Frag Enzyme (5X)

#### Acute toxicity

Not classified based on available information.

#### Skin corrosion/irritation

Not classified based on available information.

#### Serious eye damage/eye irritation

Not classified based on available information.

#### Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.

#### **Respiratory sensitisation**

Not classified based on available information.

#### **Components:**

#### Nuclease, deoxyribo-:

Assessment

May cause sensitisation by inhalation.



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Assessment : May cause sensitisation by skin contact.

#### Germ cell mutagenicity

Not classified based on available information.

#### Carcinogenicity

Not classified based on available information.

#### **Reproductive toxicity**

Not classified based on available information.

#### STOT - single exposure

Not classified based on available information.

#### **Components:**

#### Nucleotidyltransferase, deoxyribonucleate:

Assessment

: The substance or mixture is not classified as specific target organ toxicant, single exposure.

Roch

#### STOT - repeated exposure

Not classified based on available information.

#### Components:

#### Nucleotidyltransferase, deoxyribonucleate:

Assessment

: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### Aspiration toxicity

Not classified based on available information.

#### **Components:**

Nucleotidyltransferase, deoxyribonucleate: No data available

#### KAPA Frag Conditioning Solution

#### Acute toxicity

Not classified based on available information.

#### Skin corrosion/irritation

Not classified based on available information.

#### Serious eye damage/eye irritation

Not classified based on available information.

#### Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.



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#### **Respiratory sensitisation**

Not classified based on available information.

#### Germ cell mutagenicity

Not classified based on available information.

#### Carcinogenicity

Not classified based on available information.

#### **Reproductive toxicity**

Not classified based on available information.

#### STOT - single exposure

Not classified based on available information.

#### **STOT - repeated exposure**

Not classified based on available information.

#### Aspiration toxicity

Not classified based on available information. KAPA Frag Buffer (10X)

#### Acute toxicity

Not classified based on available information.

#### Skin corrosion/irritation

Not classified based on available information.

#### Serious eye damage/eye irritation

Not classified based on available information.

#### Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.

#### **Respiratory sensitisation**

Not classified based on available information.

#### Germ cell mutagenicity

Not classified based on available information.

#### Carcinogenicity

Not classified based on available information.

#### **Reproductive toxicity**

Not classified based on available information.

#### STOT - single exposure

Not classified based on available information.

#### **STOT - repeated exposure**

Not classified based on available information.

#### Aspiration toxicity

Not classified based on available information.



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#### 11.2 Information on other hazards

#### Endocrine disrupting properties

#### **Product:**

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### KAPA Frag Stop Solution

#### **Endocrine disrupting properties**

#### Product:

Assessment

The substance/mixture does not contain components consid-1 ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### KAPA Frag Enzyme (5X)

#### **Endocrine disrupting properties**

#### Product:

Assessment

The substance/mixture does not contain components consid-: ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### KAPA Frag Conditioning Solution

#### Endocrine disrupting properties

#### Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### KAPA Frag Buffer (10X)

#### **Endocrine disrupting properties**

#### Product:

| Assessment | <ul> <li>The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at</li> </ul> |
|------------|---|
|            | levels of 0.1% or higher.   |

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#### **SECTION 12: Ecological information**

### 12.1 Toxicity KAPA Frag Stop Solution

#### Components:

| edetic acid:<br>Toxicity to fish                    | : | LC50 (Lepomis macrochirus (Bluegill sunfish)): 41 mg/l<br>Exposure time: 96 h<br>Test Type: static test           |
|---|---|---|
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 625 mg/l<br>Exposure time: 24 h<br>Test Type: static test<br>Method: DIN 38412 |
| Ecotoxicology Assessment<br>Acute aquatic toxicity  | : | This product has no known ecotoxicological effects.   |
| Chronic aquatic toxicity                            | : | This product has no known ecotoxicological effects.   |

### KAPA Frag Enzyme (5X)

#### Components:

Nucleotidyltransferase, deoxyribonucleate:

| Ecotoxicology Assessment<br>Toxicity Data on Soil | : | Not expected to adsorb on soil. |
|---|---|---------------------------------|
| Other organisms relevant to the environment       | : | No data available               |

#### Nuclease, deoxyribo-:

| Ecotoxicology Assessment                    |   |                                 |
|---|---|---------------------------------|
| Toxicity Data on Soil                       | : | Not expected to adsorb on soil. |
| Other organisms relevant to the environment | : | No data available               |

### KAPA Frag Conditioning Solution

| No   | data av | vailable |       |
|------|---------|----------|-------|
| KAPA | Frag    | Buffer   | (10X) |

No data available



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### 12.2 Persistence and degradability KAPA Frag Stop Solution

Components:

edetic acid: Biodegradability

: Test Type: aerobic Result: Not readily biodegradable. Biodegradation: 20 % Exposure time: 20 d

### KAPA Frag Enzyme (5X)

### No data available KAPA Frag Conditioning Solution

No data available KAPA Frag Buffer (10X)

No data available

### 12.3 Bioaccumulative potential KAPA Frag Stop Solution

### **Components:**

| edetic | acid: |
|--------|-------|
| cuciic | acia. |

| Bioaccumulation | : Species: Lepomis macrochirus (Bluegill sunfish)<br>Exposure time: 28 d |
|-----------------|--|
|                 | Temperature: 21 °C   |
|                 | Concentration: 0,08 mg/l   |
|                 | Bioconcentration factor (BCF): 1,8                                       |
|                 |  |

Partition coefficient: n- : Remarks: No data available octanol/water

### KAPA Frag Enzyme (5X)

#### **Components:**

#### Nucleotidyltransferase, deoxyribonucleate: Pomarke: No data available Partition coefficient

| Partition coefficient: n- | : Remarks: No data available |
|---------------------------|------------------------------|
| octanol/water             |                              |

### Nuclease, deoxyribo-:

| Partition coefficient: n- | : | Remarks: No data available |
|---------------------------|---|----------------------------|
| octanol/water             |   |                            |

### KAPA Frag Conditioning Solution

No data available KAPA Frag Buffer (10X)

No data available



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### 12.4 Mobility in soil KAPA Frag Stop Solution

No data available KAPA Frag Enzyme (5X)

No data available

### KAPA Frag Conditioning Solution

No data available

### KAPA Frag Buffer (10X)

No data available

12.5 Results of PBT and vPvB assessment

#### KAPA Frag Stop Solution

Not relevant KAPA Frag Enzyme (5X)

### Not relevant KAPA Frag Conditioning Solution

Not relevant

### KAPA Frag Buffer (10X)

Not relevant

#### 12.6 Endocrine disrupting properties

#### Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### KAPA Frag Stop Solution

Product:

| Assessment | : | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
|------------|---|---|
|            |   |   |

### KAPA Frag Enzyme (5X)

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### KAPA Frag Conditioning Solution

| Assessment | : The substance/mixture does not contain components consid- |
|------------|---|
|            | ered to have endocrine disrupting properties according to   |



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REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### KAPA Frag Buffer (10X)

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects KAPA Frag Stop Solution

No data available KAPA Frag Enzyme (5X)

### No data available KAPA Frag Conditioning Solution

No data available KAPA Frag Buffer (10X)

No data available

#### **SECTION 13: Disposal considerations**

| 13.1 Waste treatment methods |   |  |
|------------------------------|---|--|
| Product                      | : | Can be disposed as waste water, when in compliance with local regulations.   |
| Contaminated packaging       | : | Empty containers should be taken to an approved waste han-<br>dling site for recycling or disposal.<br>Do not re-use empty containers. |

### **SECTION 14: Transport information**

#### 14.1 UN number or ID number

Not regulated as a dangerous good

#### 14.2 UN proper shipping name

Not regulated as a dangerous good

#### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

#### 14.4 Packing group

Not regulated as a dangerous good

#### 14.5 Environmental hazards

Not regulated as a dangerous good



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#### 14.6 Special precautions for user

| Remarks   |  |
|-----------|--|
| i temaina |  |

Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

#### 14.7 Maritime transport in bulk according to IMO instruments

:

Remarks

: Not applicable

#### **SECTION 15: Regulatory information**

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

| Seveso III: Directive<br>2012/18/EU of the European<br>Parliament and of the Council<br>on the control of major-<br>accident hazards involving<br>dangerous substances. | : | Not applicable              |
|---|---|-----------------------------|
| Water hazard class (Germa-  | : | WGK 1 slightly hazardous to |

ny)

: WGK 1 slightly hazardous to water

### KAPA Frag Stop Solution

| REACH - Restrictions on the manufacture, placing on<br>the market and use of certain dangerous substances,<br>preparations and articles (Annex XVII) | : | Not applicable |  |
|--|---|----------------|--|
| REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).  | : | Not applicable |  |
| Regulation (EC) No 1005/2009 on substances that deplete the ozone layer  | : | Not applicable |  |
| Regulation (EU) 2019/1021 on persistent organic pollu-<br>tants (recast)   | : | Not applicable |  |
| Regulation (EC) No 649/2012 of the European Parlia-<br>ment and the Council concerning the export and import<br>of dangerous chemicals               | : | Not applicable |  |
| REACH - List of substances subject to authorisation (Annex XIV)  | : | Not applicable |  |
| The components of this product are reported in the following inventories:AIIC::On the inventory, or in compliance with the inventory                 |   |                |  |

DSL : All components of this product are on the Canadian DSL



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|-------------------------|------------------------------|--|
|                         |                              |  |
| NZIoC                   | : On the inventory           | , or in compliance with the inventory  |
| ENCS                    | : On the inventory           | , or in compliance with the inventory  |
| ISHL                    | : On the inventory           | , or in compliance with the inventory  |
| KECI                    | : On the inventory           | , or in compliance with the inventory  |
| PICCS                   | : On the inventory           | , or in compliance with the inventory  |
| IECSC                   | : On the inventory           | , or in compliance with the inventory  |
| TCSI                    | : On the inventory           | , or in compliance with the inventory  |
| TSCA                    | : All substances lis         | sted as active on the TSCA inventory   |
| TECI                    | : Not in complianc           | e with the inventory   |
| Volatile organic compou |                              | 5/EU of 24 November 2010 on industrial rated pollution prevention and control) |

### Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

#### Additional Labelling

EUH210 Safety data sheet available on request.

### KAPA Frag Enzyme (5X)

| REACH - Restrictions on the manufacture, placing on<br>the market and use of certain dangerous substances,<br>preparations and articles (Annex XVII) | : | Not applicable |
|--|---|----------------|
| REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).  | : | Not applicable |
| Regulation (EC) No 1005/2009 on substances that deplete the ozone layer  | : | Not applicable |
| Regulation (EU) 2019/1021 on persistent organic pollu-<br>tants (recast)   | : | Not applicable |
| Regulation (EC) No 649/2012 of the European Parlia-<br>ment and the Council concerning the export and import<br>of dangerous chemicals               | : | Not applicable |
| REACH - List of substances subject to authorisation (Annex XIV)  | : | Not applicable |



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| The components of this product are reported in the following inventories: |   |   |  |  |
|---|---|---|--|--|
| AIIC  | : | Not in compliance with the inventory  |  |  |
| DSL   | : | This product contains the following components that are not on the Canadian DSL nor NDSL.   |  |  |
|   |   | T4-GEN32-Proteine<br>Albumins, blood plasma, Cohn fraction V<br>Nucleotidyltransferase, deoxyribonucleate<br>Nuclease, deoxyribo- |  |  |
| NZIoC   | : | On the inventory, or in compliance with the inventory   |  |  |
| ENCS  | : | Not in compliance with the inventory  |  |  |
| ISHL  | : | Not in compliance with the inventory  |  |  |
| KECI  | : | Not in compliance with the inventory  |  |  |
| PICCS   | : | Not in compliance with the inventory  |  |  |
| IECSC   | : | Not in compliance with the inventory  |  |  |
| TCSI  | : | Not in compliance with the inventory  |  |  |
| TSCA  | : | Product contains substance(s) not listed on TSCA inventory.   |  |  |
| TECI  | : | Not in compliance with the inventory  |  |  |
| Volatile organic compounds  | : | Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Not applicable     |  |  |

#### Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

### KAPA Frag Conditioning Solution

| REACH - Restrictions on the manufacture, placing on<br>the market and use of certain dangerous substances,<br>preparations and articles (Annex XVII) | : | Not applicable |
|--|---|----------------|
| REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).  | : | Not applicable |
| Regulation (EC) No 1005/2009 on substances that deplete the ozone layer  | : | Not applicable |

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| Regulation (EU) 2019/1021 on persistent organic pollu-<br>tants (recast)   | : | Not applicable |
|--|---|----------------|
| Regulation (EC) No 649/2012 of the European Parlia-<br>ment and the Council concerning the export and import<br>of dangerous chemicals | : | Not applicable |
| REACH - List of substances subject to authorisation (Annex XIV)  | : | Not applicable |

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#### The components of this product are reported in the following inventories:

| AIIC                       | : | On the inventory, or in compliance with the inventory   |
|----------------------------|---|---|
| DSL                        | : | All components of this product are on the Canadian DSL  |
| NZIoC                      | : | On the inventory, or in compliance with the inventory   |
| ENCS                       | : | On the inventory, or in compliance with the inventory   |
| ISHL                       | : | On the inventory, or in compliance with the inventory   |
| KECI                       | : | On the inventory, or in compliance with the inventory   |
| PICCS                      | : | On the inventory, or in compliance with the inventory   |
| IECSC                      | : | On the inventory, or in compliance with the inventory   |
| TCSI                       | : | On the inventory, or in compliance with the inventory   |
| TSCA                       | : | All substances listed as active on the TSCA inventory   |
| TECI                       | : | Not in compliance with the inventory  |
| Volatile organic compounds | : | Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Not applicable |

#### Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Concern for Authorisation (Article 59).

### KAPA Frag Buffer (10X)

| REACH - Restrictions on the manufacture, placing on<br>the market and use of certain dangerous substances,<br>preparations and articles (Annex XVII) | : | Not applicable |
|--|---|----------------|
| REACH - Candidate List of Substances of Very High  | : | Not applicable |



## KAPA Frag Kit

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|---|------------------------------|---|--|
| Regulation (EC) No 10 plete the ozone layer                           | 005/2009 on subst            | ances that de- : Not applicable   |  |
| Regulation (EU) 2019<br>tants (recast)                                | /1021 on persisten           | nt organic pollu- : Not applicable  |  |
| Regulation (EC) No 6-<br>ment and the Council<br>of dangerous chemica | concerning the exp           | •   |  |
| REACH - List of subst<br>(Annex XIV)                                  | ances subject to a           | authorisation : Not applicable  |  |
| The components of t   | •                            | reported in the following inventories:<br>a compliance with the inventory   |  |
| DSL   | : This p                     | product contains the following components that are n<br>e Canadian DSL nor NDSL.  |  |
|   | um sa<br>2'-dec<br>Thym      | osine 5'-(tetrahydrogen triphosphate), 2'-deoxy-, trisc<br>alt<br>oxyadenosine 5'-(tetrahydrogen triphosphate)<br>idine 5'-#(tetrahydrogen triphosphate)#, sodium salt<br>oxycytidine 5'-triphosphate disodium salt |  |
| NZIoC   | : On th                      | On the inventory, or in compliance with the inventory   |  |
| ENCS  | : Not in                     | Not in compliance with the inventory  |  |
| ISHL  | : Not in                     | Not in compliance with the inventory  |  |
| KECI  | : Not in                     | Not in compliance with the inventory  |  |
| PICCS   | : Not in                     | Not in compliance with the inventory  |  |
| IECSC   | : Not in                     | Not in compliance with the inventory  |  |
| TCSI  | : Not in                     | n compliance with the inventory   |  |
| TSCA  | : Produ                      | uct contains substance(s) not listed on TSCA invento  |  |
| TECI  | : Not in                     | n compliance with the inventory   |  |
| Volatile organic comp   | emiss                        | tive 2010/75/EU of 24 November 2010 on industrial sions (integrated pollution prevention and control) pplicable   |  |

### Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.



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#### 15.2 Chemical safety assessment

Chemical Safety Assessments for all substances in this product are either Complete or Not applicable.

#### **SECTION 16: Other information**

#### Full text of H-Statements

| H317 | : | May cause an allergic skin reaction.  |
|------|---|---|
| H319 | : | Causes serious eye irritation.  |
| H334 | : | May cause allergy or asthma symptoms or breathing difficul-<br>ties if inhaled. |

#### Full text of other abbreviations

| Eye Irrit.  | : | Eye irritation            |
|-------------|---|---------------------------|
| Resp. Sens. | : | Respiratory sensitisation |
| Skin Sens.  | : | Skin sensitisation        |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways: ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS -Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP -Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association: IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL -International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

#### **Further information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not



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to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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