

**Safety Data Sheet (SDS)** According to the REACH Regulation (EC) No. 1907/2006

**Issuing Date:** 2017-08-20

**Revision Date:** 2018-07-09

**Version:** 2

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

### 1.1. Product identifier

<b>Product No</b>	<b>95176</b>
<b>Product name</b>	<b>SimpleDIP™ Hydroxymethylated DNA IP (hMeDIP) Kit</b>
<b>Kit Component</b>	31482: SimpleDIP™ Cell Lysis Buffer 49291: SimpleDIP™ DNA-IP Buffer (10X) 74252: TE Buffer 89173: 3 M Sodium Acetate, pH 5.2 7009: ChIP Elution Buffer (2X) 51660: 5-Hydroxymethylcytosine (5-hmC) (HMC31) Mouse mAb 98528: Mouse (G3A1) mAb IgG1 Isotype Control (DIP Formulated) 9006: ChIP-Grade Protein G Magnetic Beads 10007: DNA Binding Buffer 7013: RNase A (10 mg/ml) 10012: Proteinase K 10008: DNA Wash Buffer 10009: DNA Elution Buffer 86179: SimpleDIP™ Hydroxymethyl Control Spike-In DNA 20906: SimpleDIP™ Hydroxymethyl Control Primers

**Reach registration number** This substance/mixture contains only ingredients which have been registered, or are exempt from registration, according to Regulation (EC) No. 1907/2006.

### Contains

<b>Chemical Name</b>	<b>Index No.</b>	<b>CAS No</b>
glycerol (>100%)	Not Listed	56-81-5
propan-2-ol (50 - 60%)	603-117-00-0	67-63-0
guanidinium chloride (50 - 60%)	607-148-00-0	50-01-1
Sodium diacetate (20 - 30%)	-	126-96-5
disodium hydrogenorthophosphate (20 - 30%)	Not Listed	7558-79-4
trometamol (10 - 20%)	Not Listed	77-86-1
glycine,	Not Listed	6381-92-6
N,N'-1,2-ethanediybis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2) (0 - 10%)	Not Listed	151-21-3
sodium dodecyl sulphate (0 - 10%)	Not Listed	39450-01-6
Proteinase, Tritirachium album serine (0 - 10%)	Not Listed	9002-93-1
polyethylene glycol	Not Listed	
p-(1,1,3,3-tetramethylbutyl)phenylether (0 - 10%)		
hydrochloric acid (0 - 10%)	017-002-01-X	7647-01-0
sodium azide (0 - 10%)	011-004-00-7	26628-22-8

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

# 95176 SimpleDIP™ Hydroxymethylated DNA IP (hMeDIP) Kit

## Identified uses

For research use only

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

#### Importer (Applicable in EU only)

Cell Signaling Technology Europe B.V.  
Schuttersveld 2  
2316 ZA Leiden  
The Netherlands  
TEL: +31 (0)71 7200 200  
FAX: +31 (0)71 891 0098

#### Manufacturer

Cell Signaling Technology, Inc.  
3 Trask Lane  
Danvers, MA 01923  
United States  
TEL: +1 978 867 2300  
FAX: +1 978 867 2400

#### Website

www.cellsignal.com

#### E-mail Address

info@cellsignal.eu

### 1.4. Emergency telephone number

**CHEMTREC** 24 hours a day, 7 days a week, 365 days a year  
+1 703 527 3887 (INTERNATIONAL) +1 800 424 9300 (NORTH AMERICA)

#### Europe

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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No. 1272/2008

Classification and label elements described below are inclusive of all hazards of the combined kit. The most severe classifications are listed for each endpoint. Refer to individual kit component SDS for classification and label elements for each component present in the kit.

Acute oral toxicity	Category 4 - (H302)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Respiratory sensitization	Category 1 - (H334)
Specific target organ toxicity - single exposure (STOT SE)	Category 3 - (H336)
Flammable liquids	Category 2 - (H225)

### 2.2. Label elements



#### Signal word

Danger

#### Hazard statement(s)

H302 - Harmful if swallowed

H315 - Causes skin irritation

H318 - Causes serious eye damage

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H336 - May cause drowsiness or dizziness

H225 - Highly flammable liquid and vapor

#### Precautionary statement(s)

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

P233 - Keep container tightly closed

P235 - Keep cool

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P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment  
 P242 - Use only non-sparking tools  
 P243 - Take precautionary measures against static discharge  
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P271 - Use only outdoors or in a well-ventilated area  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P284 - Wear respiratory protection  
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P310 - Immediately call a POISON CENTER or doctor/physician  
 P330 - Rinse mouth  
 P332 + P313 - If skin irritation occurs: Get medical advice/attention  
 P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician  
 P362 + P364 - Take off contaminated clothing and wash it before reuse  
 P370 + P378 - In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish  
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
 P405 - Store locked up  
 P501 - Dispose of contents/container to an approved waste disposal plant

### 2.3. Other hazards

For the full text of the H-phrases & EUH-phrases mentioned in this Section, see Section 16

## SECTION 3. Composition/information on ingredients

### Kit Component 31482: SimpleDIP™ Cell Lysis Buffer

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
glycine, N,N'-1,2-ethanediybis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2)]	6381-92-6	1-5	-	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available

### Kit Component 49291: SimpleDIP™ DNA-IP Buffer (10X)

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	9002-93-1	1 - <3	-	Acute Tox. 4(H302) Eye Dam. 1(H318) Aquatic Chronic 2 (H411)	no data available

### Kit Component 74252: TE Buffer

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
hydrochloric acid	7647-01-0	0.1 - <1	231-595-7	Acute Tox. 3 (H331) Skin Corr. 1A (H314) Skin Corr. 1B (H314) STOT SE 3 (H335) Press. Gas	no data available

### Kit Component 89173: 3 M Sodium Acetate, pH 5.2

Chemical Name	CAS No	Weight %	EC No	Classification	REACH
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				(1272/2008)	Registration Number
Sodium diacetate	126-96-5	20-30	204-814-9	Eye Dam. 1 (H318)	no data available

**Kit Component** 7009: ChIP Elution Buffer (2X)

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
sodium dodecyl sulphate	151-21-3	1-3	205-788-1	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Acute Tox. 4 (H302) Acute Tox. 3 (H311)	no data available
trometamol	77-86-1	0.5-1.5	201-064-4	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available

**Kit Component** 51660: 5-Hydroxymethylcytosine (5-hmC) (HMC31) Mouse mAb  
98528: Mouse (G3A1) mAb IgG1 Isotype Control (DIP Formulated)

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
glycerol	56-81-5	30-60	200-289-5	-	no data available

**Kit Component Name** 9006: ChIP - Grade Protein G Magnetic Beads

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
sodium azide	26628-22-8	<=0.1	247-852-1	Acute Tox. 2 (H300) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH032)	no data available

**Kit Component** 10007: DNA Binding Buffer

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
propan-2-ol	67-63-0	30-60	200-661-7	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225)	no data available
guanidinium chloride	50-01-1	30-60	200-002-3	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	no data available

**Kit Component Name** 7013: RNase A (10 mg/ml)

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
glycerol	56-81-5	30-60	200-289-5	-	no data available
trometamol	77-86-1	7-13	201-064-4	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available

**Kit Component Name** 10012: Proteinase K

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
glycerol	56-81-5	30-60	200-289-5	-	no data available
Proteinase, Tritirachium album serine	39450-01-6	1-5	254-457-8	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	no data available

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				Resp. Sens. 1 (H334)	
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**Kit Component Name**                    10008: DNA Wash Buffer  
   10009: DNA Elution Buffer  
   86179: SimpleDIP™ Hydroxymethyl Control Spike-In DNA  
   20906: SimpleDIP™ Hydroxymethyl Control Primers

These products do not contain substances at concentrations requiring disclosure under (EC) No. 1907/2006 (REACH).

*For the full text of the H-phrases & EUH-phrases mentioned in this Section, see Section 16*

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

**General advice**                    Use first aid treatment according to the nature of the injury. When symptoms persist or in all cases of doubt seek medical advice. Show this safety data sheet to the doctor in attendance.

**Inhalation**                        IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately if symptoms occur. If breathing is difficult, give oxygen.

**Skin contact**                    Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation or rash occurs: Get medical advice/attention.

**Eye contact**                    Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately if symptoms occur.

**Ingestion**                        Do NOT induce vomiting. Clean mouth with water and afterwards drink plenty of water. Get medical attention immediately if symptoms occur.

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

Contains kit components which may cause the following effects, refer to individual component SDSs for full information on symptoms:

Corrosive to the eyes and may cause irreversible eye damage. Causes skin irritation. May cause allergic respiratory reaction. Vapors may cause drowsiness and dizziness. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

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

**Notes to physician**                    Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

**Suitable Extinguishing Media**                    Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**                    CAUTION: Use of water spray when fighting fire may be inefficient. Do not use a solid water stream as it may scatter and spread fire.

#### 5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes.

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**                    ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

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Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

### For emergency responders

Use personal protection recommended in Section 8.

### 6.2. Environmental precautions

Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.

### 6.3. Methods and material for containment and cleaning up

#### Methods for containment

Prevent further leakage or spillage if safe to do so.

#### Methods for cleaning up

Cover liquid spill with sand, earth or other noncombustible absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. Prevent product from entering drains.

### 6.4. Reference to other sections

See Sections 8 & 13 for additional information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Use according to package label instructions. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wear personal protective equipment. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feeding stuffs. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Provide regular cleaning of equipment, work area and clothing. Wash hands before breaks and immediately after handling the product.

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

Keep containers tightly closed in a dry, cool and well-ventilated place.

### 7.3. Specific end use(s)

Use as a laboratory reagent.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Chemical Name	European Union	United Kingdom	France	Spain	Germany
glycerol		STEL 30 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup>	TWA 10 mg/m <sup>3</sup>	TWA 10 mg/m <sup>3</sup>	Ceiling / Peak: 400 mg/m <sup>3</sup> TWA: 200 mg/m <sup>3</sup>
propan-2-ol		STEL 500 ppm STEL 1250 mg/m <sup>3</sup> TWA 400 ppm TWA 999 mg/m <sup>3</sup>	STEL 400 ppm STEL 980 mg/m <sup>3</sup>	TWA 200 ppm TWA 500 mg/m <sup>3</sup> STEL 400 ppm STEL 1000 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 500 mg/m <sup>3</sup> Ceiling / Peak: 400 ppm Ceiling / Peak: 1000 mg/m <sup>3</sup>
hydrochloric acid	TWA 5 ppm TWA 8 mg/m <sup>3</sup> STEL 10 ppm STEL 15 mg/m <sup>3</sup>	STEL 5 ppm STEL 8 mg/m <sup>3</sup> TWA 1 ppm TWA 2 mg/m <sup>3</sup>	STEL 5 ppm STEL 7.6 mg/m <sup>3</sup>	TWA 5 ppm TWA 7.6 mg/m <sup>3</sup> STEL 10 ppm STEL 15 mg/m <sup>3</sup>	TWA: 2 ppm TWA: 3 mg/m <sup>3</sup> Ceiling / Peak: 4 ppm Ceiling / Peak: 6 mg/m <sup>3</sup> TWA: 3.0 mg/m <sup>3</sup>

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sodium azide	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup> S*	STEL 0.3 mg/m <sup>3</sup> TWA 0.1 mg/m <sup>3</sup> Skin	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup> P*	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup> S*	TWA: 0.2 mg/m <sup>3</sup> Ceiling / Peak: 0.4 mg/m <sup>3</sup>
<b>Chemical Name</b>	<b>Italy</b>	<b>Portugal</b>	<b>Netherlands</b>	<b>Finland</b>	<b>Denmark</b>
glycerol		TWA 10 mg/m <sup>3</sup>		TWA 20 mg/m <sup>3</sup>	
propan-2-ol		TWA 200 ppm STEL 400 ppm C(A4)		TWA 200 ppm TWA 500 mg/m <sup>3</sup> STEL 250 ppm STEL 620 mg/m <sup>3</sup>	TWA 200 ppm TWA 490 mg/m <sup>3</sup>
hydrochloric acid	TWA 5 ppm TWA 8 mg/m <sup>3</sup> STEL 10 ppm STEL 15 mg/m <sup>3</sup>	Ceiling 2 ppm C(A4)	STEL 15 mg/m <sup>3</sup> TWA 8 mg/m <sup>3</sup>	STEL 5 ppm STEL 7.6 mg/m <sup>3</sup>	Ceiling 5 ppm Ceiling 8 mg/m <sup>3</sup>
sodium azide	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup> Pelle*	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup> Ceiling 0.29 mg/m <sup>3</sup> Ceiling 0.11 ppm C(A4) P*	Huid* STEL 0.3 mg/m <sup>3</sup> TWA 0.1 mg/m <sup>3</sup>	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup> iho*	TWA 0.1 mg/m <sup>3</sup> H*
<b>Chemical Name</b>	<b>Austria</b>	<b>Switzerland</b>	<b>Poland</b>	<b>Norway</b>	<b>Ireland</b>
glycerol		SS-C** TWA 50 mg/m <sup>3</sup> STEL 100 mg/m <sup>3</sup>	TWA 10 mg/m <sup>3</sup>		TWA 10 mg/m <sup>3</sup> STEL 30 mg/m <sup>3</sup>
propan-2-ol	STEL 800 ppm STEL 2000 mg/m <sup>3</sup> TWA 200 ppm TWA 500 mg/m <sup>3</sup> C	SS-C** TWA 200 ppm TWA 500 mg/m <sup>3</sup> STEL 400 ppm STEL 1000 mg/m <sup>3</sup>	TWA 900 mg/m <sup>3</sup> STEL 1200 mg/m <sup>3</sup>	TWA 100 ppm TWA 245 mg/m <sup>3</sup> STEL 150 ppm STEL 306.25 mg/m <sup>3</sup>	TWA 200 ppm STEL 400 ppm Skin
hydrochloric acid	STEL 10 ppm STEL 15 mg/m <sup>3</sup> TWA 5 ppm TWA 8 mg/m <sup>3</sup>	SS-C** TWA 2 ppm TWA 3.0 mg/m <sup>3</sup> STEL 4 ppm STEL 6 mg/m <sup>3</sup>	TWA 5 mg/m <sup>3</sup> STEL 10 mg/m <sup>3</sup>	Ceiling 5 ppm Ceiling 7 mg/m <sup>3</sup>	TWA 5 ppm TWA 8 mg/m <sup>3</sup> STEL 10 ppm STEL 15 mg/m <sup>3</sup>
sodium azide	H* STEL 0.3 mg/m <sup>3</sup> TWA 0.1 mg/m <sup>3</sup>	TWA 0.2 mg/m <sup>3</sup> STEL 0.4 mg/m <sup>3</sup>	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup>	TWA 0.1 mg/m <sup>3</sup> STEL 0.1 mg/m <sup>3</sup>	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup> Skin
<b>Chemical Name</b>	<b>European Union</b>	<b>United Kingdom</b>	<b>France</b>	<b>Spain</b>	<b>Germany</b>
propan-2-ol				40	Biologische Grenzwerte nach TRGS 903 sind zu beachten
<b>Chemical Name</b>	<b>Austria</b>	<b>Switzerland</b>	<b>Poland</b>	<b>Norway</b>	<b>Ireland</b>
propan-2-ol		25			

### 8.2. Exposure controls

#### Appropriate engineering controls

Showers, eyewash stations, and ventilation systems.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Tightly fitting safety goggles

##### Skin protection

###### Hand protection

Impervious gloves.

###### Other

Wear suitable protective clothing.

##### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

#### Environmental Exposure Controls

No information available.

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Information on the known physical chemical properties of each component within Kit are given below. If not included, information is

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either not available or not applicable. Refer to individual kit component SDS for further information.

<b>Kit Component</b>	<b>31482: SimpleDIP™ Cell Lysis Buffer</b>
Physical state	Liquid
Color	Clear
pH VALUE	8.0
<b>Kit Component</b>	<b>49291: SimpleDIP™ DNA-IP Buffer (10X)</b>
Physical state	Liquid
Color	Clear
pH VALUE	7.0
<b>Kit Component</b>	<b>74252: TE Buffer</b>
Physical state	Liquid
Color	Clear
pH VALUE	8.0
<b>Kit Component</b>	<b>89173: 3 M Sodium Acetate, pH 5.2</b>
Physical state	Liquid
Color	Clear
pH VALUE	5.2
<b>Kit Component</b>	<b>7009: ChIP Elution Buffer (2X)</b>
Physical state	Liquid
Appearance	Translucent
Color	Clear
pH VALUE	7.5
Remarks	@ 20 °C
<b>Kit Component</b>	<b>51660: 5-Hydroxymethylcytosine (5-hmC) (HMC31) Mouse mAb</b>
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH VALUE	7.4
Remarks	@ 20 °C
<b>Kit Component</b>	<b>98528: Mouse (G3A1) mAb IgG1 Isotype Control (DIP Formulated)</b>
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH VALUE	7.4
Remarks	@ 20 °C
<b>Kit Component</b>	<b>9006: ChIP-Grade Protein G Magnetic Beads</b>
Physical state	Liquid
Appearance	Suspension
Color	Clear White to off-white with white suspended solids
<b>Kit Component</b>	<b>10007: DNA Binding Buffer</b>
Physical state	Liquid
Appearance	Colorless
Color	Clear
Odor	Characteristic
pH VALUE	7.0
Remarks	@ 20 °C
Flash point (°C) VALUE	>=21
Autoignition temp (°C) VALUE	425
Upper flammability limit	12%
Lower flammability limit	2%
<b>Kit Component</b>	<b>7013: RNase A (10 mg/ml)</b>
Physical state	Liquid



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Appearance	Transparent
Color	Clear Colorless
pH VALUE	7.6
Remarks	@ 20 °C

<b>Kit Component</b>	<b>10012: Proteinase K</b>
Physical state	Liquid
Appearance	Clear
Color	Colorless

<b>Kit Component</b>	<b>10008: DNA Wash Buffer</b>
Physical state	Liquid
pH VALUE	7.7

<b>Kit Component</b>	<b>10009: DNA Elution Buffer</b>
Physical state	Liquid
pH VALUE	8.5

<b>Kit Component</b>	<b>86179: SimpleDIP™ Hydroxymethyl Control Spike-In DNA</b>
Physical state	Liquid
Appearance	Clear
Color	Colorless

<b>Kit Component</b>	<b>20906: SimpleDIP™ Hydroxymethyl Control Primers</b>
Physical state	Liquid
Appearance	Clear
Color	Colorless

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No information available.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous reactions</b>	None under normal processing.

#### 10.4. Conditions to avoid

Extremes of temperature and direct sunlight. Heat, flames and sparks.

#### 10.5. Incompatible materials

Strong acids. Strong bases. Oxidizing agents.

#### 10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Product Information

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Refer to kit component SDS for full toxicological information. This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

<b>Kit Component</b>	<b>10007: DNA Binding Buffer</b>
ATEmix (oral)	867 mg/kg
ATEmix (dermal)	25600 mg/kg

### Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
glycerol	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 570 mg/m <sup>3</sup> (Rat) 1 h
propan-2-ol	5000 mg/kg (Rat)	12800 mg/kg (Rabbit)	16000 ppm (Rat) 8h
guanidinium chloride	475 mg/kg (Rat)	-	-
disodium hydrogenorthophosphate	17000 mg/kg (Rat)	-	-
trometamol	5900 mg/kg (Rat)	-	-
glycine,	2800 mg/kg (Rat)	-	-
N,N'-1,2-ethanediybis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2)			
sodium dodecyl sulphate	= 1288 mg/kg (Rat) = 1783 mg/kg (Rat)	= 200 mg/kg (Rabbit)	> 3900 mg/m <sup>3</sup> (Rat) 1 h
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	= 1800 mg/kg (Rat)	-	-
sodium azide	= 27 mg/kg (Rat)	= 20 mg/kg (Rabbit) = 50 mg/kg (Rat)	-

### Information on likely routes of exposure

#### Inhalation

<b>Kit Component</b> Inhalation	<b>10007: DNA Binding Buffer</b> May cause drowsiness and dizziness
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<b>Kit Component</b> Inhalation	<b>10012: Proteinase K</b> May cause allergy or asthma symptoms or breathing difficulties if inhaled
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#### Eye contact

<b>Kit Component</b> Eye contact	<b>49291: SimpleDIP™ DNA-IP Buffer (10X)</b> Severely irritating to eyes
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<b>Kit Component</b> Eye contact	<b>89173: 3 M Sodium Acetate, pH 5.2</b> Corrosive to the eyes and may cause severe damage including blindness May cause irreversible damage to eyes
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<b>Kit Component</b> Eye contact	<b>7009: ChIP Elution Buffer (2X)</b> Severely irritating to eyes
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<b>Kit Component</b> Eye contact	<b>10007: DNA Binding Buffer</b> Severely irritating to eyes
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<b>Kit Component</b> Eye contact	<b>7013: RNase A (10 mg/ml)</b> Severely irritating to eyes
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#### Skin contact

<b>Kit Component</b>	<b>10007: DNA Binding Buffer</b>
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Skin contact Expected to be an irritant based on components

**Kit Component**  
Skin contact **7013: RNase A (10 mg/ml)**  
Expected to be an irritant based on components

### Ingestion

**Kit Component**  
Ingestion **10007: DNA Binding Buffer**  
Harmful if swallowed

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Symptoms** Contains kit components which may cause the following effects, refer to individual component SDSs for full information on symptoms:  
Corrosive to the eyes and may cause irreversible eye damage. Causes skin irritation May cause allergic respiratory reaction Vapors may cause drowsiness and dizziness Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

### Skin and Eye Corrosion/Irritation

**Kit Component**  
Serious eye damage/eye irritation **49291: SimpleDIP™ DNA-IP Buffer (10X)**  
Causes serious eye irritation

**Kit Component**  
Serious eye damage/eye irritation **89173: 3 M Sodium Acetate, pH 5.2**  
Risk of serious damage to eyes

**Kit Component**  
Serious eye damage/eye irritation **7009: ChIP Elution Buffer (2X)**  
Causes serious eye irritation

**Kit Component**  
Skin corrosion/irritation **10007: DNA Binding Buffer**  
Causes skin irritation  
Serious eye damage/eye irritation Causes serious eye irritation

**Kit Component**  
Skin corrosion/irritation **7013: RNase A (10 mg/ml)**  
Causes skin irritation  
Serious eye damage/eye irritation Causes serious eye irritation

### Sensitization

**Kit Component**  
Respiratory Sensitization **10012: Proteinase K**  
Respiratory Sensitizer May cause allergy or asthma symptoms or breathing difficulties if inhaled

**Mutagenic effects** No information available

**Carcinogenic effects** No information available

**Reproductive toxicity** No information available.

### Systemic Target Organ Toxicity (STOT)

**Kit Component**  
STOT - single exposure **10007: DNA Binding Buffer**  
Target Organ Effects May cause drowsiness or dizziness  
Central nervous system (CNS)

**Aspiration Hazard** No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Product Information** No information available

#### Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
glycerol	-	LC50 51 - 57 mL/L (Oncorhynchus mykiss) 96 h	EC50 500 mg/L (Daphnia magna) 24 h
propan-2-ol	EC50 1000 mg/L (Desmodesmus subspicatus) 96 h EC50 1000 mg/L (Desmodesmus subspicatus) 72 h	LC50 9640 mg/L (Pimephales promelas) 96 h LC50 1400000 µg/L (Lepomis macrochirus) 96 h LC50 11130 mg/L (Pimephales promelas) 96 h	EC50 13299 mg/L (Daphnia magna) 48 h
guanidinium chloride	-	LC50 1758 mg/L (Leuciscus idus) 48 h	-
trometamol	-	-	NOEC >100 mg/L (Selenastrum capricornutum) 96 h
sodium dodecyl sulphate	EC50 53 mg/L (Desmodesmus subspicatus) 72 h EC50 30 - 100 mg/L (Desmodesmus subspicatus) 96 h EC50 42 mg/L (Desmodesmus subspicatus) 96 h EC50 3.59 - 15.6 mg/L (Pseudokirchneriella subcapitata) 96 h EC50 117 mg/L (Pseudokirchneriella subcapitata) 96 h	LC50 8 - 12.5 mg/L (Pimephales promelas) 96 h LC50 4.1 mg/L (Leuciscus idus) 48 h LC50 22.1 - 22.8 mg/L (Pimephales promelas) 96 h LC50 4.3 - 8.5 mg/L (Oncorhynchus mykiss) 96 h LC50 4.62 mg/L (Oncorhynchus mykiss) 96 h LC50 4.2 mg/L (Oncorhynchus mykiss) 96 h LC50 7.97 mg/L (Brachydanio rerio) 96 h LC50 9.9 - 20.1 mg/L (Brachydanio rerio) 96 h LC50 4.06 - 5.75 mg/L (Lepomis macrochirus) 96 h LC50 4.2 - 4.8 mg/L (Lepomis macrochirus) 96 h LC50 4.5 mg/L (Lepomis macrochirus) 96 h LC50 5.8 - 7.5 mg/L (Pimephales promelas) 96 h LC50 10.2 - 22.5 mg/L (Pimephales promelas) 96 h LC50 6.2 - 9.6 mg/L (Pimephales promelas) 96 h LC50 13.5 - 18.3 mg/L (Poecilia reticulata) 96 h LC50 10.8 - 16.6 mg/L (Poecilia reticulata) 96 h LC50 1.31 mg/L (Cyprinus carpio) 96 h LC50 15 - 18.9 mg/L (Pimephales promelas) 96 h	EC50 21.2 mg/L (Daphnia magna) 24 h EC50 1.8 mg/L (Daphnia magna) 48 h
hydrochloric acid	-	LC50 282 mg/L (Gambusia affinis) 96 h	-
sodium azide	EC50 0.35 mg/L (Pseudokirchneriella subcapitata) 96 h	LC50 0.8 mg/L (Oncorhynchus mykiss) 96 h LC50 5.46 mg/L (Pimephales promelas) 96 h LC50 0.7 mg/L (Lepomis macrochirus) 96 h	LC100 1 mg/L (Orconectes rusticus) 96 h

### 12.2. Persistence and degradability

**Kit Component**  
Persistence and degradability

**10007: DNA Binding Buffer**  
Readily biodegradable

### 12.3. Bioaccumulative potential

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**Kit Component**  
Bioaccumulation

**10007: DNA Binding Buffer**  
Not likely to bioaccumulate

Chemical Name	Octanol-Water Partition Coefficient
glycerol	-1.76
propan-2-ol	0.05
guanidinium chloride	-1.7
sodium dodecyl sulphate	1.6

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

No information available.

### 12.6. Other adverse effects

No information available

Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	Group III Chemical	-	-

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Waste from residues / unused products**

Dispose of in accordance with local regulations.

**Contaminated packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal.

**Other information**

Waste codes should be assigned by the user based on the application for which the product was used.

## SECTION 14: Transport information

This material is subject to regulation as a hazardous material for shipping:

### IMDG/IMO

14.1 UN number UN1219  
14.2 UN proper shipping name Isopropanol  
14.3 Transport hazard class(es) 3  
14.4 Packing group II  
14.5 Environmental hazards None  
14.6 Special precautions for user  
EmS No. F-E, S-D  
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not regulated

14.1 UN number UN1219  
14.2 UN proper shipping name Isopropanol  
14.3 Transport hazard class(es) 3  
14.4 Packing group II  
14.5 Environmental hazards None  
14.6 Special precautions for user  
Classification Code F1

Tunnel Restriction Code (D/E)

**IATA**

14.1 UN number UN1219  
 14.2 UN proper shipping name Isopropanol  
 14.3 Transport hazard class(es) 3  
 14.4 Packing group II  
 14.5 Environmental hazards None  
 14.6 Special precautions for user  
 ERG code 3L  
 Excepted Quantity E2

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Candidate List of Substances of Very High Concern for Authorization Information**

Chemical Name	Candidate List of Substances of Very High Concern for Authorization Information
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether (0 - 10%)	Reason for inclusion Endocrine disrupting properties, Article 57f - environment

**SEVESO Directive Information**

Chemical Name	96/82/EC - Qualifying Quantities
hydrochloric acid	25 tonne (Lower-tier) 250 tonne (Upper-tier)

**International inventories**

TSCA 8(b) -  
 DSL/NDSL -  
 EINECS/ELINCS -  
 ENCS -  
 IECSC -  
 KECL -  
 PICCS -  
 AICS -

**International inventories legend**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
 EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
 ENCS - Japan Existing and New Chemical Substances  
 IECSC - China Inventory of Existing Chemical Substances  
 KECL - Korean Existing and Evaluated Chemical Substances  
 PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 AICS - Australian Inventory of Chemical Substances

**15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out

**SECTION 16: Other information****Full text of H-Statements referred to under Sections 2 and 3**

H302 - Harmful if swallowed  
 H315 - Causes skin irritation  
 H318 - Causes serious eye damage

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H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H336 - May cause drowsiness or dizziness

H225 - Highly flammable liquid and vapor

**Classification procedure:** Expert judgment and weight of evidence determination.

**Issuing Date:** 2017-08-20

**Revision Date:** 2018-07-09

### Disclaimer

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 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.