

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

Issuing Date: 2017-09-20

Revision Date: 2020-05-01

Version: 2

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

1.1. Product identifier

Product No	9002
Product name	SimpleChIP® Enzymatic Chromatin IP Kit (Agarose Beads)
Kit Component	7005: Glycine Solution (10X) 7006: Buffer A (4X) 7007: Buffer B (4X) 7008: ChIP Buffer (10X) 7009: ChIP Elution Buffer (2X) 7010: 5 M NaCl 7011: 0.5 M EDTA, pH 8.0 9007: ChIP-Grade Protein G Agarose Beads 10007: DNA Binding Buffer 10008: DNA Wash Buffer 10009: DNA Elution Buffer 10010: DNA Purification Columns and Collection Tubes 7012: Protease Inhibitor Cocktail (200X) 7013: RNase A (10 mg/ml) 10011: Micrococcal Nuclease 10012: Proteinase K 7014: SimpleChIP® Human RPL30 Exon 3 Primers 7015: SimpleChIP® Mouse RPL30 Intron 2 Primers 4620: Histone H3 (D2B12) XP® Rabbit mAb (ChIP Formulated) 2729: Normal Rabbit IgG 7016: DTT (Dithiothreitol)

Contains

Chemical name	Index No.	CAS No
glycerol (>100%)	Not Listed	56-81-5
(R*,R*)-1,4-dimercaptobutane-2,3-diol (90 - 100%)	Not Listed	3483-12-3
dimethyl sulfoxide (90 - 100%)	Not Listed	67-68-5
sucrose (80 - 90%)	Not Listed	57-50-1
propan-2-ol (50 - 60%)	603-117-00-0	67-63-0
guanidinium chloride (50 - 60%)	607-148-00-0	50-01-1
glycine, N,N'-1,2-ethanediybis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2) (20 - 30%)	Not Listed	6381-92-6
trometamol (20 - 30%)	Not Listed	77-86-1
polyethylene glycol	Not Listed	9002-93-1
p-(1,1,3,3-tetramethylbutyl)phenylether (10 - 20%)		

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2-[2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethoxy]ethanol (0 - 10%)	Not Listed	9036-19-5
potassium chloride (0 - 10%)	Not Listed	7447-40-7
sodium dodecyl sulphate (0 - 10%)	Not Listed	151-21-3
sodium hydroxide (0 - 10%)	011-002-00-6	1310-73-2
Proteinase, Tritirachium album serine (0 - 10%)	Not Listed	39450-01-6
sodium	Not Listed	302-95-4
3-alpha,12-alpha-dihydroxy-5beta-cholan-24-oate (0 - 10%)		
edetic acid (0 - 10%)	607-429-00-8	60-00-4
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

Identified uses For research use only

1.3. Details of the supplier of the safety data sheet

Importer	Manufacturer
Cell Signaling Technology Europe B.V.	Cell Signaling Technology, Inc.
Dellaertweg 9b	3 Trask Lane
2316 WZ Leiden	Danvers, MA 01923
The Netherlands	United States
TEL: +31 (0)71 7200 200	TEL: +1 978 867 2300
FAX: +31 (0)71 891 0019	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 112

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)
Chronic aquatic toxicity	Category 3 - (H412)
Flammable liquids	Category 2 - (H225)

2.2. Label elements

9002 SimpleChIP® Enzymatic Chromatin IP Kit (Agarose Beads)



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

H412 - Harmful to aquatic life with long lasting effects

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

P240 - Ground/Bond container and receiving equipment

P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment

P242 - Use only non-sparking tools

P243 - Take precautionary measures against static discharge

P260 - Do not breathe 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

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P284 - In case of inadequate ventilation wear respiratory protection

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

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

P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

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

P370 + P378 - In case of fire: Use dry chemical, CO₂, water spray or regular foam to extinguish

P403 + P235 - Store in a well-ventilated place. Keep cool

P405 - Store locked up

P501 - Dispose of contents/container to an approved waste disposal plant

2.3. Other hazards

May accelerate skin absorption of other materials. Special attention needed when toxic materials are present in dimethyl sulfoxide because of enhanced skin absorption.

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 7005: Glycine Solution (10X)

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
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glycine	56-40-6	5-10	200-272-2	-	no data available
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 7006: Buffer A (4X)

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
sucrose	57-50-1	30-60	200-334-9	-	no data available
2-[2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethoxy]ethanol	9036-19-5	1-5	-	Acute Tox. 4 (H302) Eye Dam 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	no data available
potassium chloride	7447-40-7	1-5	231-211-8	-	no data available
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 7007: Buffer B (4X)

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
sucrose	57-50-1	30-60	200-334-9	-	no data available
potassium chloride	7447-40-7	1-5	231-211-8	-	no data available
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 7008: ChIP 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	5-10	618-344-0	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)	no data available
trometamol	77-86-1	3-7	201-064-4	-	no data available
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
sodium 3-alpha,12-alphadihydroxy-5beta-cholan-24-oate	302-95-4	0.1-1	206-132-7	Acute Tox. 4 (H302) STOT SE 3 (H335)	no data available
sodium dodecyl sulphate	151-21-3	0.1-1	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

Kit Component 7009: ChIP Elution Buffer (2X)

9002 SimpleChIP® Enzymatic Chromatin IP Kit (Agarose Beads)

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	-	no data available

Kit Component 7011: 0.5 M EDTA, pH 8.0

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	10-30	-	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available
sodium hydroxide	1310-73-2	<1	215-185-5	Skin Corr. 1A (H314)	no data available

Kit Component 9007: ChIP-Grade Protein G Agarose 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 Name 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 7012: Protease Inhibitor Cocktail (200X)

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
dimethyl sulfoxide	67-68-5	60-<100	200-664-3	-	no data available
benzenesulfonyl fluoride, 4-(2-aminoethyl)-, hydrochloride (1:1)	30827-99-7	1-<3	608-547-2	Skin Corr. 1B (H314)	no data available

Kit Component 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-<10	201-064-4	-	no data available

Kit Component Name 10011: Micrococcal Nuclease

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
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glycerol	56-81-5	30-60	200-289-5	-	no data available
edetic acid	60-00-4	0.1-1	200-449-4	Acute Tox. 4 (H302) Eye Irrit. 2 (H319)	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-<3	254-457-8	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334)	no data available

Kit Component Name 4620: Histone H3 (D2B12) XP® Rabbit mAb (ChIP 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
sodium azide	26628-22-8	<0.02	247-852-1	Acute Tox. 2 (H300) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH032)	no data available

Kit Component 2729: Normal Rabbit IgG

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 7016: DTT (Dithiothreitol)

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
(R*,R*)-1,4-dimercaptobutane-2,3-diol	3483-12-3	60-100	222-468-7	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available

Kit Component Name 7010: 5M NaCl
10008: DNA Wash Buffer
10009: DNA Elution Buffer
7014: SimpleChIP® Human RPL30 Exon 3 Primers
7015: SimpleChIP® Mouse RPL30 Intron 2 Primers
100010: DNA Purification Columns and Collection Tubes

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. Get medical attention immediately if symptoms occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get

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Ingestion medical attention immediately if symptoms occur.
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. Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

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). 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. Ensure adequate ventilation.

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

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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.

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 ³ TWA 10 mg/m ³	TWA 10 mg/m ³	TWA 10 mg/m ³	Ceiling / Peak: 400 mg/m ³ TWA: 200 mg/m ³
dimethyl sulfoxide					TWA: 50 ppm TWA: 160 mg/m ³ Skin Ceiling / Peak: 100 ppm Ceiling / Peak: 320 mg/m ³ H*
sucrose		STEL 20 mg/m ³ TWA 10 mg/m ³	TWA 10 mg/m ³	TWA 10 mg/m ³	
propan-2-ol		STEL 500 ppm STEL 1250 mg/m ³ TWA 400 ppm TWA 999 mg/m ³	STEL 400 ppm STEL 980 mg/m ³	TWA 200 ppm TWA 500 mg/m ³ STEL 400 ppm STEL 1000 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ Ceiling / Peak: 400 ppm Ceiling / Peak: 1000 mg/m ³
sodium hydroxide		STEL 2 mg/m ³	TWA 2 mg/m ³	STEL 2 mg/m ³	
sodium azide	TWA 0.1 mg/m ³ STEL 0.3 mg/m ³ S*	STEL 0.3 mg/m ³ TWA 0.1 mg/m ³ Skin	TWA 0.1 mg/m ³ STEL 0.3 mg/m ³ P*	TWA 0.1 mg/m ³ STEL 0.3 mg/m ³ S*	TWA: 0.2 mg/m ³ Ceiling / Peak: 0.4 mg/m ³
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
glycerol		TWA 10 mg/m ³		TWA 20 mg/m ³	
dimethyl sulfoxide				TWA 50 ppm iho*	TWA 50 ppm TWA 160 mg/m ³
sucrose		TWA 10 mg/m ³ C(A4)			
propan-2-ol		TWA 200 ppm STEL 400 ppm C(A4)		TWA 200 ppm TWA 500 mg/m ³ STEL 250 ppm STEL 620 mg/m ³	TWA 200 ppm TWA 490 mg/m ³
sodium hydroxide		Ceiling 2 mg/m ³		STEL 2 mg/m ³ Ceiling 2 mg/m ³	Ceiling 2 mg/m ³
sodium azide	TWA 0.1 mg/m ³ STEL 0.3 mg/m ³ Pelle*	TWA 0.1 mg/m ³ STEL 0.3 mg/m ³ Ceiling 0.29 mg/m ³ Ceiling 0.11 ppm C(A4) P*	Huid* STEL 0.3 mg/m ³ TWA 0.1 mg/m ³	TWA 0.1 mg/m ³ STEL 0.3 mg/m ³ iho*	TWA 0.1 mg/m ³ H*
Chemical name	Austria	Switzerland	Poland	Norway	Ireland

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glycerol		SS-C** TWA 50 mg/m ³ STEL 100 mg/m ³	TWA 10 mg/m ³		TWA 10 mg/m ³ STEL 30 mg/m ³
dimethyl sulfoxide	H* TWA 50 ppm TWA 160 mg/m ³	H* TWA 50 ppm TWA 160 mg/m ³ STEL 100 ppm STEL 320 mg/m ³			
sucrose					TWA 10 mg/m ³ STEL 20 mg/m ³
propan-2-ol	STEL 800 ppm STEL 2000 mg/m ³ TWA 200 ppm TWA 500 mg/m ³ C	SS-C** TWA 200 ppm TWA 500 mg/m ³ STEL 400 ppm STEL 1000 mg/m ³	TWA 900 mg/m ³ STEL 1200 mg/m ³	TWA 100 ppm TWA 245 mg/m ³ STEL 150 ppm STEL 306.25 mg/m ³	TWA 200 ppm STEL 400 ppm Skin
sodium hydroxide	STEL 4 mg/m ³ TWA 2 mg/m ³	SS-C** TWA 2 mg/m ³ STEL 2 mg/m ³	TWA 0.5 mg/m ³ STEL 1 mg/m ³	Ceiling 2 mg/m ³	STEL 2 mg/m ³
sodium azide	H* STEL 0.3 mg/m ³ TWA 0.1 mg/m ³	TWA 0.2 mg/m ³ STEL 0.4 mg/m ³	TWA 0.1 mg/m ³ STEL 0.3 mg/m ³	TWA 0.1 mg/m ³ STEL 0.1 mg/m ³	TWA 0.1 mg/m ³ STEL 0.3 mg/m ³ Skin

Chemical name	European Union	United Kingdom	France	Spain	Germany
propan-2-ol				40	Biologische Grenzwerte nach TRGS 903 sind zu beachten
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
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 If splashes are likely to occur, wear Face-shield

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

Kit Component

Physical state

Appearance

Color

pH VALUE

Remarks

7005: Glycine Solution (10X)

Liquid

Transparent

Clear Colorless

6.58

@ 20 °C

Kit Component

Physical state

Appearance

Color

7006: Buffer A (4X)

Liquid

Translucent

Clear

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pH VALUE 7.5
Remarks @ 20 °C

Kit Component 7007: Buffer B (4X)
Physical state Liquid
Appearance Translucent
Color Clear Colorless
pH VALUE 7.5
Remarks @ 20 °C

Kit Component 7008: ChIP Buffer (10X)
Physical state Liquid
Appearance Translucent
Color Clear
pH VALUE 8.1
Remarks @ 20 °C

Kit Component 7009: ChIP Elution Buffer (2X)
Physical state Liquid
Appearance Translucent
Color Clear
pH VALUE 7.5
Remarks @ 20 °C

Kit Component 7010: 5M NaCl
Physical state Liquid
Appearance Translucent
Color Clear Colorless
pH VALUE 5.35
Remarks @ 20 °C

Kit Component 7011: 0.5 M EDTA, pH 8.0
Physical state Liquid
Appearance Clear
Color Colorless
pH VALUE 8
Remarks @ 20 °C

Kit Component 9007: ChIP-Grade Protein G Agarose Beads
Physical state Liquid
Appearance Suspension
Color Clear White to off-white with white suspended solids

Kit Component 10007: DNA Binding Buffer
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%

Kit Component 10008: DNA Wash Buffer
Physical state Liquid
pH VALUE 7.7
Remarks @ 20 °C

Kit Component 10009: DNA Elution Buffer
Physical state Liquid
pH VALUE 8.5

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Remarks	@ 20 °C
Kit Component Physical state	10010: DNA Purification Columns and Collection Tubes Solid (1 X 36 Pack)
Kit Component Physical state Appearance Color Odor pH VALUE Remarks Flash point (°C) VALUE Method Upper flammability limit Lower flammability limit	7012: Protease Inhibitor Cocktail (200X) Liquid Clear Colorless Sulphurous 7 @ 20 °C 87°C Closed cup (based on components) 42% 3.5%
Kit Component Physical state Appearance Color pH VALUE Remarks	7013: RNase A (10 mg/ml) Liquid Clear Colorless 7.6 @ 20 °C
Kit Component Physical state Appearance Color pH VALUE Remarks	10011: Micrococcal Nuclease Liquid Clear Colorless 7.5 @ 25 °C
Kit Component Physical state Appearance Color	10012: Proteinase K (20 mg/ml) Liquid Clear Colorless
Kit Component Physical state Appearance Color	7014: SimpleChIP® Human RPL30 Exon 3 Primers Liquid Clear Colorless
Kit Component Physical state Appearance Color	7015: SimpleChIP® Mouse RPL30 Intron 2 Primers Liquid Clear Colorless
Kit Component Physical state Appearance Color pH VALUE Remarks	4620: Histone H3 (D2B12) XP® Rabbit mAb (ChIP Formulated) Liquid Clear Colorless 7.5 @ 20 °C
Kit Component Physical state Appearance Color pH VALUE Remarks	2729: Normal Rabbit IgG Liquid Clear Colorless 7.5 @ 20 °C
Kit Component Physical state Appearance	7016: DTT (Dithiothreitol) Solid Powder

9002 SimpleChIP® Enzymatic Chromatin IP Kit (Agarose Beads)

Color

White

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

Hazardous polymerization Hazardous polymerization does not occur.
Hazardous reactions None under normal processing.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight. Heat, flames and sparks. Over a period of time, sodium azide may react with copper, lead, brass, or solder in plumbing systems to form an accumulation of the HIGHLY EXPLOSIVE compounds of lead azide & copper azide.

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

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.

Kit Component **7010: 5M NaCl**
 ATEmix (oral) 10,267 mg/kg

Kit Component **10007: DNA Binding Buffer**
 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 ³ (Rat) 1 h
(R*,R*)-1,4-dimercaptobutane-2,3-diol	400 mg/kg (Rat)	-	-
dimethyl sulfoxide	= 14500 mg/kg (Rat) = 28300 mg/kg (Rat)	= 40 g/kg (Rat)	> 5.33 mg/L (Rat) 4 h
sucrose	29700 mg/kg (Rat)	-	-
propan-2-ol	5000 mg/kg (Rat)	12800 mg/kg (Rabbit)	16000 ppm (Rat) 8h
guanidinium chloride	475 mg/kg (Rat)	-	-

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glycine, N,N'-1,2-ethanediybis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2)	2800 mg/kg (Rat)	-	-
trometamol	5900 mg/kg (Rat)	-	-
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	= 1800 mg/kg (Rat)	-	-
glycine	9550 mg/kg (Rat)	-	-
2-[2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethoxy]ethanol	1700 mg/kg (Rat)	-	-
potassium chloride	2600 mg/kg (Rat)	-	-
sodium dodecyl sulphate	= 1288 mg/kg (Rat)	= 200 mg/kg (Rabbit)	> 3900 mg/m ³ (Rat) 1 h
benzenesulfonyl fluoride, 4-(2-aminoethyl)-, hydrochloride (1:1)	2834 mg/kg (mouse)	-	-
sodium 3-alpha,12-alphadihydroxy-5beta-cholestan-24-oate	1370 mg/kg (Rat)	-	-
sodium azide	= 27 mg/kg (Rat)	= 20 mg/kg (Rabbit) = 50 mg/kg (Rat)	-

Information on likely routes of exposure

Inhalation

Kit Component
Inhalation

10007: DNA Binding Buffer
May cause drowsiness and dizziness

Kit Component
Inhalation

10012: Proteinase K
May cause allergy or asthma symptoms or breathing difficulties if inhaled

Kit Component
Inhalation

7016: DTT (Dithiothreitol)
May cause irritation of respiratory tract

Eye contact

Kit Component
Eye contact

7006: Buffer A (4X)
May cause irreversible damage to eyes

Kit Component
Eye contact

7008: ChIP Buffer (10X)
May cause irreversible damage to eyes

Kit Component
Eye contact

7009: ChIP Elution Buffer (2X)
Expected to be an irritant based on components

Kit Component
Eye contact

7010: 5M NaCl
Contact with eyes may cause irritation

Kit Component
Eye contact

7011: 0.5 M EDTA, pH 8.0
Expected to be an irritant based on components

Kit Component
Eye contact

10007: DNA Binding Buffer
Expected to be an irritant based on components

Kit Component
Eye contact

7012: Protease Inhibitor Cocktail (200X)
Expected to be an irritant based on components

Kit Component
Eye contact

7016: DTT (Dithiothreitol)
Severely irritating to eyes

Skin contact

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Kit Component Skin contact	7008: ChIP Buffer (10X) Expected to be an irritant based on components
Kit Component Skin contact	7011: 0.5 M EDTA, pH 8.0 Expected to be an irritant based on components
Kit Component Skin contact	10007: DNA Binding Buffer Expected to be an irritant based on components
Kit Component Skin contact	7012: Protease Inhibitor Cocktail (200X) Expected to be an irritant based on components
Kit Component Skin contact	7016: DTT (Dithiothreitol) Irritating to skin

Ingestion

Kit Component Ingestion	10007: DNA Binding Buffer May be harmful if swallowed
Kit Component Ingestion	7016: DTT (Dithiothreitol) 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. Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

Skin and Eye Corrosion/Irritation

Kit Component Serious eye damage/eye irritation	7006: Buffer A (4X) Risk of serious damage to eyes
Kit Component Serious eye damage/eye irritation Skin corrosion/irritation	7008: ChIP Buffer (10X) Risk of serious damage to eyes Causes skin irritation
Kit Component Serious eye damage/eye irritation	7009: ChIP Elution Buffer (2X) Causes serious eye irritation
Kit Component Serious eye damage/eye irritation	7010: 5M NaCl Irritating to eyes
Kit Component Serious eye damage/eye irritation Skin corrosion/irritation	7011: 0.5 M EDTA, pH 8.0 Causes serious eye irritation Causes skin irritation
Kit Component	10007: DNA Binding Buffer

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Serious eye damage/eye irritation	Causes serious eye irritation
Skin corrosion/irritation	Causes skin irritation
Kit Component	7012: Protease Inhibitor Cocktail (200X)
Serious eye damage/eye irritation	Causes serious eye irritation
Skin corrosion/irritation	Causes skin irritation
Kit Component	7016: DTT (Dithiothreitol)
Serious eye damage/eye irritation	Causes serious eye irritation
Skin corrosion/irritation	Causes skin irritation

Sensitization

Kit Component	10012: Proteinase K
Respiratory Sensitization	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	10007: DNA Binding Buffer
Target Organ Effects STOT - single exposure	Central nervous system (CNS) May cause drowsiness or dizziness

Kit Component	7012: Protease Inhibitor Cocktail (200X)
Other adverse effects	May accelerate skin absorption of other materials. Special attention needed when toxic materials are present in dimethyl sulfoxide because of enhanced skin absorption.

Kit Component	7016: DTT (Dithiothreitol)
STOT - single exposure	Respiratory system

Aspiration Hazard No information available.

SECTION 12: Ecological information

12.1. Toxicity

Product Information

Harmful to aquatic life with long lasting effects

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
dimethyl sulfoxide	EC50 12350 - 25500 mg/L (Skeletonema costatum) 96 h	LC50 34000 mg/L (Pimephales promelas) 96 h LC50 41.7 g/L (Cyprinus carpio) 96 h LC50 40 g/L (Lepomis macrochirus) 96 h LC50	EC50 7000 mg/L (Daphnia species) 24 h

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		33 - 37 g/L (Oncorhynchus mykiss) 96 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
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	-	LC50 8.9 mg/l (Pimephales promelas) 96 h	EC50 26 mg/l (Daphnia) 48 h
2-[2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethoxy]ethanol	EC50 0.21 mg/L (Selenastrum) 96 h	LC50 7.2 mg/L (Oncorhynchus mykiss) 96 h	LC50 8.6 mg/L (Daphnia magna) 48 h
potassium chloride	EC50 2500 mg/L (Desmodesmus subspicatus) 72 h	LC50 1060 mg/L (Lepomis macrochirus) 96 h LC50 750 - 1020 mg/L (Pimephales promelas) 96 h	EC50 825 mg/L (Daphnia magna) 48 h EC50 83 mg/L (Daphnia magna) 48 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
sodium hydroxide	-	LC50 45.4 mg/L (Oncorhynchus mykiss) 96 h	-
edetic acid	EC50 1.01 mg/L (Desmodesmus subspicatus) 72 h	LC50 34 - 62 mg/L (Lepomis macrochirus) 96 h LC50 44.2 - 76.5 mg/L (Pimephales promelas) 96 h	EC50 113 mg/L (Daphnia magna) 48 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

7006: Buffer A (4X)

Results show, that both long and short chain 4-tert-OPnEO are not readily biodegradable using standard test methods.

Kit Component

Persistence and degradability

7007: Buffer B (4X)

Product is biodegradable

Kit Component

7008: ChIP Buffer (10X)

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Persistence and degradability Not readily biodegradable

Kit Component
Persistence and degradability **10007: DNA Binding Buffer**
Readily biodegradable

Kit Component
Persistence and degradability **7012: Protease Inhibitor Cocktail (200X)**
Degrades to dimethyl sulfide.

12.3. Bioaccumulative potential

Kit Component
Bioaccumulation **7007: Buffer B (4X)**
Not likely to bioaccumulate

Kit Component
Bioaccumulation **10007: DNA Binding Buffer**
Not likely to bioaccumulate

Kit Component
Bioaccumulation **7012: Protease Inhibitor Cocktail (200X)**
Not likely to bioaccumulate

Chemical name	Octanol-Water Partition Coefficient
glycerol	-1.76
dimethyl sulfoxide	-2.03
propan-2-ol	0.05
guanidinium chloride	-1.7
sodium dodecyl sulphate	1.6

12.4. Mobility in soil

Kit Component
Mobility **7012: Protease Inhibitor Cocktail (200X)**
Will likely be mobile in the environment due to its water solubility

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

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	-	-
2-[2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethoxy]ethanol	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 UN3316
 14.2 UN proper shipping name Chemical Kits
 14.3 Transport hazard class(es) 9
 14.4 Packing group II
 14.5 Environmental hazards None
 14.6 Special precautions for user
 EmS No. F-A, S-P
 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not regulated

ADR/RID

14.1 UN number UN3316
 14.2 UN proper shipping name Chemical Kits
 14.3 Transport hazard class(es) 9
 14.4 Packing group II
 14.5 Environmental hazards None
 14.6 Special precautions for user
 Classification Code M11
 Tunnel Restriction Code E

IATA

14.1 UN number UN3316
 14.2 UN proper shipping name Chemical Kits
 14.3 Transport hazard class(es) 9
 14.4 Packing group II
 14.5 Environmental hazards None
 14.6 Special precautions for user
 Special provisions A163, A44

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 (10 - 20%)	Reason for inclusion Endocrine disrupting properties, Article 57f - environment
2-[2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethoxy]ethanol (0 - 10%)	Listed As: 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]

SEVESO Directive Information

Chemical name	96/82/EC - Qualifying Quantities
2-[2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethoxy]ethanol	100 tonne (Lower-tier) 200 tonne (Upper-tier)

International inventories

TSCA 8(b) -
 DSL/NDSL -

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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

H225 - Highly flammable liquid and vapor
H300 - Fatal if swallowed
H302 - Harmful if swallowed
H311 - Toxic in contact with skin
H314 - Causes severe skin burns and eye damage
H315 - Causes skin irritation
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects
EUH032 - Contact with acids liberates very toxic gas

Classification procedure: Expert judgment and weight of evidence determination.

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Disclaimer

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