

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

Issuing Date: 2017-09-26

Revision Date: 2025-05-12

Version: 3

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

1.1. Product identifier

Product No 9004
Product name SimpleChIP® Plus 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)
- 7014: SimpleChIP® Human RPL30 Exon 3 Primers
- 7015: SimpleChIP® Mouse RPL30 Intron 2 Primers
- 7016: DTT (Dithiothreitol)
- 10011: Micrococcal Nuclease
- 10012: Proteinase K
- 4620: Histone H3 (D2B12) XP® Rabbit mAb (ChIP Formulated)
- 2729: Normal Rabbit IgG

Hazardous Components

7006: Buffer A (4X)
7008: ChIP Buffer (10X)
7011: 0.5 M EDTA, pH 8.0
10007: DNA Binding Buffer
7012: Protease Inhibitor Cocktail (200X)
10012: Proteinase K
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 |
| 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 |
| polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether (10 - | Not Listed | 9002-93-1 |

9004 - SimpleChIP® Plus Enzymatic Chromatin IP Kit (Agarose Beads)

| | | |
|--|--------------|------------|
| 20%) | | |
| glycine (0 - 10%) | Not Listed | 56-40-6 |
| 2-[2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethoxy]ethanol (0 - 10%) | Not Listed | 9036-19-5 |
| sodium dodecyl sulphate (0 - 10%) | Not Listed | 151-21-3 |
| benzenesulfonyl fluoride, 4-(2-aminoethyl)-, hydrochloride (1:1) (0 - 10%) | | 30827-99-7 |
| Proteinase, Tritirachium album serine (0 - 10%) | Not Listed | 39450-01-6 |
| sodium 3-alpha,12-alphadihydroxy-5beta-cholan-24-oate (0 - 10%) | Not Listed | 302-95-4 |
| 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. Not for Use in Diagnostic Procedures.

1.3. Details of the supplier of the safety data sheet

| | |
|--|---|
| Importer | Manufacturer |
| Cell Signaling Technology Europe B.V. Dellaertweg 9b 2316 WZ Leiden The Netherlands TEL: +31 (0)71 7200 200 FAX: +31 (0)71 891 0019 | 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 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

| | |
|---|---------------------|
| Acute toxicity - Oral | 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) | Category 3 - (H336) |
| Hazardous to the aquatic environment - chronic | Category 3 - (H412) |
| Flammable liquids | Category 2 - (H225) |

2.2. Label elements



Signal word
Danger

- Hazard statements** H302 - Harmful if swallowed
 H315 - Causes skin irritation
 H318 - Causes serious eye damage
 H225 - Highly flammable liquid and vapor
 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

Precautionary Statements - EU (§28, 1272/2008)

- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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
 P271 - Use only outdoors or in a well-ventilated area
 P273 - Avoid release to the environment
 P284 - In case of inadequate ventilation wear respiratory protection
 P280 - Wear protective gloves/protective clothing/eye protection/face 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
 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 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

No information available.

SECTION 3. Composition/information on ingredients

Kit Component 7005: Glycine Solution (10X)

| Chemical name | CAS No. | Weight-% | EC No. (Index No.) | Classification according to Regulation (EC) | REACH registration number |
|---------------|---------|----------|--------------------|---|---------------------------|
| | | | | | |

9004 - SimpleChIP® Plus Enzymatic Chromatin IP Kit (Agarose Beads)

| | | | | No. 1272/2008 [CLP] | |
|--------------|------------|------|-----------|---|-------------------|
| glycine | 56-40-6 | 5-10 | 200-272-2 | No data available | 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)

DANGER: Causes serious eye damage. Harmful to aquatic life with long lasting effects.

| Chemical name | CAS No. | Weight-% | EC No. (Index No.) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | REACH registration number |
|--|----------------|-----------------|---------------------------|---|----------------------------------|
| 2-[2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethoxy]ethanol | 9036-19-5 | 1-5 | 618-541-1 | Acute Tox. 4 (H302) Eye Dam 1 (H318) Aquatic Chronic 3 (H412) | 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. (Index No.) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | 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 7008: ChIP Buffer (10X)

DANGER: Causes skin irritation. Causes serious eye damage. Harmful to aquatic life with long lasting effects.

| Chemical name | CAS No. | Weight-% | EC No. (Index No.) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | 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 |
| glycine, N,N'-1,2-ethanediybis[N-(carboxymethyl)-, sodium | 6381-92-6 | 1-5 | - | Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) | No data available |

9004 - SimpleChIP® Plus Enzymatic Chromatin IP Kit (Agarose Beads)

| | | | | | |
|--|----------|-------|-----------|---|-------------------|
| salt, hydrate (1:2:2) | | | | | |
| 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 |
| sodium 3-alpha,12-alphadihydrox y-5beta-cholan-24-oate | 302-95-4 | 0.1-1 | 206-132-7 | Acute Tox. 4 (H302) STOT SE 3 (H335) | No data available |

Kit Component 7009: ChIP Elution Buffer (2X)

| Chemical name | CAS No. | Weight-% | EC No. (Index No.) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | 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 |

Kit Component 7011: 0.5 M EDTA, pH 8.0

WARNING: Causes skin irritation. Causes serious eye irritation.

| Chemical name | CAS No. | Weight-% | EC No. (Index No.) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | 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 |

Kit Component 9007: ChIP-Grade Protein G Agarose Beads

| Chemical name | CAS No. | Weight-% | EC No. (Index No.) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | 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

DANGER: Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Highly flammable liquid and vapor.

9004 - SimpleChIP® Plus Enzymatic Chromatin IP Kit (Agarose Beads)

| Chemical name | CAS No. | Weight-% | EC No. (Index No.) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | 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 |

NOTE: Reacts vigorously with bleach and releases toxic gas

Kit Component 7012: Protease Inhibitor Cocktail (200X)

WARNING: Causes skin irritation. Causes serious eye irritation.

| Chemical name | CAS No. | Weight-% | EC No. (Index No.) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | REACH registration number |
|--|------------|----------|--------------------|---|---------------------------|
| dimethyl sulfoxide | 67-68-5 | 60-<100 | 200-664-3 | No data available | 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. (Index No.) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | REACH registration number |
|---------------|---------|----------|--------------------|---|---------------------------|
| glycerol | 56-81-5 | 30-60 | 200-289-5 | No data available | No data available |

Kit Component 10011: Micrococcal Nuclease

| Chemical name | CAS No. | Weight-% | EC No. (Index No.) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | REACH registration number |
|---------------|---------|----------|--------------------|---|---------------------------|
| glycerol | 56-81-5 | 30-60 | 200-289-5 | No data available | 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 10012: Proteinase K

DANGER: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

| Chemical name | CAS No. | Weight-% | EC No. (Index No.) | Classification according to Regulation (EC) | REACH registration number |
|---------------|---------|----------|--------------------|---|---------------------------|
|---------------|---------|----------|--------------------|---|---------------------------|

9004 - SimpleChIP® Plus Enzymatic Chromatin IP Kit (Agarose Beads)

| | | | | No. 1272/2008 [CLP] | |
|---------------------------------------|------------|-------|-----------|---|-------------------|
| glycerol | 56-81-5 | 30-60 | 200-289-5 | No data available | 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 4620: Histone H3 (D2B12) XP® Rabbit mAb (ChIP Formulated)

| Chemical name | CAS No. | Weight-% | EC No. (Index No.) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | REACH registration number |
|----------------------|----------------|-----------------|---------------------------|---|----------------------------------|
| glycerol | 56-81-5 | 30-60 | 200-289-5 | No data available | 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. (Index No.) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | REACH registration number |
|----------------------|----------------|-----------------|---------------------------|--|----------------------------------|
| glycerol | 56-81-5 | 30-60 | 200-289-5 | No data available | No data available |

Kit Component 7016: DTT (Dithiothreitol)

WARNING: Causes skin irritation. Causes serious eye irritation. Harmful if swallowed. May cause respiratory irritation.

| Chemical name | CAS No. | Weight-% | EC No. (Index No.) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | 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**
- 7010: 5 M NaCl
 - 7014: SimpleChIP® Human RPL30 Exon 3 Primers
 - 7015: SimpleChIP® Mouse RPL30 Intron 2 Primers
 - 10008: DNA Wash Buffer
 - 10009: DNA Elution Buffer
 - 10010: DNA Purification Columns and Collection

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. If symptoms persist, call a physician. If breathing is irregular or stopped, administer artificial respiration. |
| Skin contact | Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If symptoms persist, call a physician. |
| Eye contact | Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. Call a physician if irritation persists. |
| Ingestion | Rinse mouth. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. |

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

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. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. May cause skin, eye, and respiratory tract irritation.

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, Cool containers / tanks with water spray, Dry chemical, Carbon dioxide (CO ₂), Alcohol-resistant foam |
| Unsuitable Extinguishing Media | 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 | Evacuate personnel to safe areas. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Remove combustible material and, if possible, all exposed reservoirs. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment. |
| For emergency responders | Use personal protection recommended in Section 8. |

6.2. Environmental precautions

Cover discharges with foam in order to reduce the risks of ignition. Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

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.

6.4. Reference to other sections

See Sections 8 & 13 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Keep away from open flames, hot surfaces and sources of ignition.

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

| Occupational exposure limit values | | | | | |
|---|---|---|---|---|---|
| Chemical name | European Union | United Kingdom | France | Spain | Germany DFG |
| glycerol | | STEL 30 mg/m ³ TWA 10 mg/m ³ | TWA 10 mg/m ³ | TWA 10 mg/m ³ | TWA: 200 mg/m ³ Ceiling / Peak: 400 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* |
| 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 azide | TWA 0.1 mg/m ³ STEL 0.3 mg/m ³ | STEL 0.3 mg/m ³ TWA 0.1 mg/m ³ | TWA 0.1 mg/m ³ STEL 0.3 mg/m ³ | TWA 0.1 mg/m ³ STEL 0.3 mg/m ³ | TWA: 0.2 mg/m ³ Ceiling / Peak: 0.4 |

9004 - SimpleChIP® Plus Enzymatic Chromatin IP Kit (Agarose Beads)

| | S* | Skin | P* | S* | mg/m ³ |
|----------------------|--|--|--|---|--|
| Chemical name | Italy MDLPS | 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 STEL 100 ppm STEL 320 mg/m ³ |
| 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 STEL 400 ppm STEL 980 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 STEL 0.3 mg/m ³ H* |
| Chemical name | Austria | Switzerland | Poland | Norway | Ireland |
| glycerol | | SS-C** TWA 50 mg/m ³ STEL 100 mg/m ³ | TWA 10 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 | | | |
| 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 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 0.3 mg/m ³ | TWA 0.1 mg/m ³ STEL 0.3 mg/m ³ Skin |

| Biological limit values | | | | | |
|--------------------------------|-----------------------|-----------------------|---------------|---------------|---|
| Chemical name | European Union | United Kingdom | France | Spain | Germany TRGS |
| propan-2-ol | | | | 40 | Biologische Grenzwerte nach TRGS 903 sind zu beachten |
| Chemical name | Austria | Switzerland | Poland | Norway | Ireland |
| propan-2-ol | | 25 0.4 | | | |

8.2. Exposure controls

Appropriate engineering controls

Showers, eyewash stations, and ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection

Safety glasses with side-shields.

Skin protection

Wear protective gloves and protective clothing.

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 | 7005: Glycine Solution (10X) |
| Physical state | Liquid |
| Appearance | Clear |
| Color | Colorless |
| pH | 6.58 (20 °C) |
| Kit Component | 7006: Buffer A (4X) |
| Physical state | Liquid |
| Appearance | Clear |
| Color | Colorless |
| pH | 7.5 (20 °C) |
| Kit Component | 7007: Buffer B (4X) |
| Physical state | Liquid |
| Appearance | Clear |
| Color | Colorless |
| pH | 7.5 (20 °C) |
| Kit Component | 7008: ChIP Buffer (10X) |
| Physical state | Liquid |
| Appearance | Clear |
| Color | Colorless |
| pH | 8.1 (20 °C) |
| Kit Component | 7009: ChIP Elution Buffer (2X) |
| Physical state | Liquid |
| Appearance | Clear |
| Color | Colorless |
| pH | 7.5 (20 °C) |
| Kit Component | 7010: 5M NaCl |
| Physical state | Liquid |
| Appearance | Clear |
| Color | Colorless |
| pH | 5.35 (20 °C) |
| Kit Component | 7011: 0.5 M EDTA, pH 8.0 |
| Physical state | Liquid |
| Appearance | Clear |
| Color | Colorless |
| pH | 8.0 (20 °C) |
| Kit Component | 9007: ChIP-Grade Protein G Agarose Beads |
| Physical state | Liquid |
| Appearance | Suspension |
| Color | White to off-white with white suspended solids |
| Kit Component | 10007: DNA Binding Buffer |
| Physical state | Liquid |
| Appearance | Clear |
| Color | Colorless |
| Odor | Alcohol-like odor |
| pH | 7.0 (20 °C) |
| pH - VALUE 1 | 7.0 (20 °C) |

9004 - SimpleChIP® Plus Enzymatic Chromatin IP Kit (Agarose Beads)

Flash point >=21 (20 °C)
Autoignition temperature 425 (20 °C)
Lower explosion limit 2%
Upper explosion limit 12%

Kit Component 10008: DNA Wash Buffer
Physical state Liquid
Appearance Clear
Color Colorless
pH 7.7 (20 °C)

Kit Component 10009: DNA Elution Buffer
Physical state Liquid
pH 8.5 (20 °C)

Kit Component 10010: DNA Purification Columns and Collection Tubes
Physical state Solid

Kit Component 7012: Protease Inhibitor Cocktail (200X)
Physical state Liquid
Appearance Clear
Color Colorless
Odor Sulphurous
pH - VALUE 1 7 (20 °C)
Flash point °C - VALUE 1 87°C
Lower explosion limit 3.5%
Upper explosion limit 42%

Kit Component 7013: RNase A (10 mg/ml)
Physical state Liquid
Appearance Clear
Color Colorless
pH - VALUE 1 7.6 (20 °C)

Kit Component 10011: Micrococcal Nuclease
Physical state Liquid
Appearance Clear
Color Colorless
pH - VALUE 1 7.5 (25 °C)

Kit Component 10012: Proteinase K (20 mg/ml)
Physical state Liquid
Appearance Clear
Color Colorless

Kit Component 7014: SimpleChIP® Human RPL30 Exon 3 Primers
Physical state Liquid
Appearance Clear
Color Colorless

Kit Component 7015: SimpleChIP® Mouse RPL30 Intron 2 Primers
Physical state Liquid
Appearance Clear
Color Colorless

Kit Component 4620: Histone H3 (D2B12) XP® Rabbit mAb (ChIP Formulated)
Physical state Liquid
Appearance Clear
Color Colorless

pH - VALUE 1 7.5 (20 °C)

Kit Component 2729: Normal Rabbit IgG
Physical state Liquid
Appearance Clear
Color Colorless
pH - VALUE 1 7.5 (20 °C)

Kit Component 7016: DTT (Dithiothreitol)
Appearance Powder
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 10007: DNA Binding Buffer - Reacts vigorously with bleach and releases toxic gas

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, Bleach

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 hazard classes as defined in Regulation (EC) No 1272/2008

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.

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------------------------------|---------------------|--------------------|-----------------------|
| glycerol | = 27200 mg/kg (Rat) | > 10 g/kg (Rabbit) | > 5.85 mg/L (Rat) 4 h |
| (R*,R*)-1,4-dimercaptobutane-2,3-diol | 400 mg/kg (Rat) | - | - |

9004 - SimpleChIP® Plus Enzymatic Chromatin IP Kit (Agarose Beads)

| | | | |
|---|--|--------------------------------------|--|
| dimethyl sulfoxide | = 28300 mg/kg (Rat) | = 40000 mg/kg (Rat) | > 5.33 mg/L (Rat) 4 h |
| propan-2-ol | 5000 mg/kg (Rat) | 12800 mg/kg (Rabbit) | 16000 ppm (Rat) 8h |
| guanidinium chloride | 475 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | = 3.181 mg/L (Rat) 4 h = 7.655 mg/L (Rat) 4 h |
| glycine, N,N'-1,2-ethanediybis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2)] | 2800 mg/kg (Rat) | - | - |
| polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether | = 1700 mg/kg (Rat) = 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) | - | - |
| 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-alpha-dihydroxy-5beta-cholestan-24-oate | 1370 mg/kg (Rat) | - | - |
| edetic acid | > 2000 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

7008: ChIP Buffer (10X)
May cause irritation of respiratory tract

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)
Causes serious eye damage

Kit Component
Eye contact

7008: ChIP Buffer (10X)
Causes serious eye damage

Kit Component
Eye contact

7011: 0.5 M EDTA, pH 8.0
Causes serious eye irritation

Kit Component
Eye contact

10007: DNA Binding Buffer
Causes serious eye irritation

Kit Component
Eye contact

7012: Protease Inhibitor Cocktail (200X)
Causes serious eye damage

Kit Component
Eye contact

7016: DTT (Dithiothreitol)
Causes serious eye irritation

Skin contact

| | |
|--------------------------------------|---|
| Kit Component Skin contact | 7008: ChIP Buffer (10X) Irritating to skin |
| Kit Component Skin contact | 7011: 0.5 M EDTA, pH 8.0 Irritating to skin |
| Kit Component Skin contact | 7012: Protease Inhibitor Cocktail (200X) Irritating to skin |
| Kit Component Skin contact | 7016: DTT (Dithiothreitol) May cause slight irritation |
| Kit Component Skin contact | 10007: DNA Binding Buffer Irritating to skin |

Ingestion

| | |
|-----------------------------------|---|
| Kit Component Ingestion | 10007: DNA Binding Buffer May be harmful if swallowed. |
| Kit Component Ingestion | 7016: DTT (Dithiothreitol) May be harmful if swallowed. |

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

Symptoms 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. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. May cause skin, eye, and respiratory tract irritation.

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 Skin corrosion/irritation | 7011: 0.5 M EDTA, pH 8.0 Causes serious eye irritation Causes skin irritation |
| Kit Component Serious eye damage/eye irritation Skin corrosion/irritation | 10007: DNA Binding Buffer Causes serious eye irritation Causes skin irritation |
| Kit Component Serious eye damage/eye irritation Skin corrosion/irritation | 7012: Protease Inhibitor Cocktail (200X) Causes serious eye irritation Causes skin irritation |
| Kit Component Serious eye damage/eye irritation | 7016: DTT (Dithiothreitol) Causes serious eye irritation |

9004 - SimpleChIP® Plus Enzymatic Chromatin IP Kit (Agarose Beads)

| | |
|--|---------------------------|
| Skin corrosion/irritation | Causes skin irritation |
| Sensitization | No information available |
| 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 Target organ effects | 10007: DNA Binding Buffer May cause drowsiness or dizziness Central nervous system |
|--|---|

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

Aspiration Hazard No information available.

11.2. Information on other hazards

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Product Information No information available

Component Information

| Chemical name | Algae/aquatic plants | Fish | Crustacea |
|--|--|---|--------------------------------------|
| glycerol | - | LC50 51 - 57 mL/L (Oncorhynchus mykiss) 96 h | - |
| dimethyl sulfoxide | - | LC50 34000 mg/L (Pimephales promelas) 96 h LC50 33 - 37 g/L (Oncorhynchus mykiss) 96 h LC50 40 g/L (Lepomis macrochirus) 96 h LC50 41.7 g/L (Cyprinus carpio) 96 h | - |
| propan-2-ol | EC50 1000 mg/L (Desmodosmus subspicatus) 96 h EC50 1000 mg/L (Desmodosmus subspicatus) 72 h | LC50 9640 mg/L (Pimephales promelas) 96 h LC50 11130 mg/L (Pimephales promelas) 96 h LC50 1400000 µg/L (Lepomis macrochirus) 96 h | EC50 13299 mg/L (Daphnia magna) 48 h |
| glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2) | - | LC50 320 mg/L (Poecilia reticulata) 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 |
| glycine | - | LC50 1000 mg/L (Oryzias latipes) 96 h | - |
| 2-[2-[4-(2,4,4-trimethylpentan-2-yl)ph | EC50 0.21 mg/L (Selenastrum) 96 h | LC50 7.2 mg/L (Oncorhynchus | LC50 8.6 mg/L (Daphnia magna) 48 |

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 | Partition coefficient |
|---|-----------------------|
| glycerol | -1.75 |
| dimethyl sulfoxide | -1.35 |
| propan-2-ol | 0.05 |
| guanidinium chloride | <-1.7 |
| glycine | -3.21 |
| sodium dodecyl sulphate | 1.6 |
| sodium 3-alpha,12-alphadihydroxy-5beta-cholan-24-oate | 5.35 |

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.

EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation

Contains a known or suspected endocrine disruptor

| 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 | Endocrine disrupting properties, Article 57f - environment | - | - |
| 2-[2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethoxy]ethanol | Endocrine disrupting properties, Article 57f - environment | - | - |

12.7. Other adverse effects

No information available

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

- 14.1 UN number or ID number UN3316
- 14.2 UN proper shipping name Chemical Kit
- 14.3 Transport hazard class(es) 9
- 14.4 Packing group II
- 14.5 Environmental hazards None
- 14.6 Special precautions for user
- 14.7 Maritime transport in bulk according to IMO instruments Not regulated

ADR

- 14.1 UN number or ID number UN3316
- 14.2 UN proper shipping name Chemical Kit
- 14.3 Transport hazard class(es) 9
- 14.4 Packing group II
- 14.5 Environmental hazards None
- 14.6 Special precautions for user

IATA

- 14.1 UN number or ID number UN3316
- 14.2 UN proper shipping name Chemical Kit
- 14.3 Transport hazard class(es) 9
- 14.4 Packing group II
- 14.5 Environmental hazards None
- 14.6 Special precautions for user

SECTION 15: Regulatory information

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

Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

| Chemical name | Candidate List of Substances of Very High Concern for Authorization Information | REACH Annex XVII |
|--|---|------------------|
| 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%) | Reason for inclusion Endocrine disrupting properties, Article 57f - environment | |

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 -
EINECS/ELINCS -
ENCS -
IECSC -
KECL -
PICCS -
AIC -

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 any hazard and/or precautionary statements referred to under Sections 2-15

H205 - May mass explode in fire
H228 - Flammable solid
H240 - Heating may cause an explosion
H250 - Catches fire spontaneously if exposed to air
H251 - Self-heating; may catch fire
H252 - Self-heating in large quantities; may catch fire
H252 - Self-heating in large quantities; may catch fire
H260 - In contact with water releases flammable gases which may ignite spontaneously
H270 - May cause or intensify fire; oxidizer
H271 - May cause fire or explosion; strong oxidizer
H272 - May intensify fire; oxidizer
H281 - Contains refrigerated gas; may cause cryogenic burns or injury
H301 - Toxic if swallowed
H300 - Fatal if swallowed
H370 - Causes damage to organs if inhaled
H370 - Causes damage to organs in contact with skin
H370 - Causes damage to organs
H372 - Causes damage to organs through prolonged or repeated exposure if inhaled

Classification procedure: Expert judgment and weight of evidence determination.

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Disclaimer

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