Safety Data Sheet (SDS) According to the OSHA Hazard Communication Standard 29 CFR 1910.1200

Issuing Date: 2017-08-20 **Version:** 1

SECTION 1. Identification

Product identifier

Product No	14231
Product name	SimpleChIP® Chromatin IP Buffers
Kit Component	**ChIP Buffer (10X)** **ChIP Elution Buffer (2X)** **5 M NaCl**

Recommended use of the chemical and restrictions on use

Identified uses	This product is intended for research purposes only.

Manufacturer, importer, supplier

Manufacturer address	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
Email address	support@cellsignal.com
Emergency telephone number	In case of emergency call CHEMTREC 1-800-424-9300

SECTION 2. Hazard(s) identification

Classification

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. This substance/mixture is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1

GHS Label elements, including precautionary statements

Signal Word
Danger

Hazard statement(s)
Causes skin irritation. Causes serious eye damage.

Precautionary Statement(s)
Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Specific treatment (see supplemental first aid instructions on this label).
IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Supplementary Hazard Information

No information available.
Hazards not otherwise classified (HNOC)
Not applicable.

SECTION 3. Composition/information on ingredients

Kit Component Name ChIP Buffer (10X)

Chemical Name	CAS No	Weight %	Hazardous
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	9002-93-1	5-10	Yes
trometamol	77-86-1	3-7	Yes
glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2)	6381-92-6	1-5	Yes
sodium 3-alpha,12-alphadihydroxy-5beta-cholan-24-oate	302-95-4	0.1-1	Yes
sodium dodecyl sulphate	151-21-3	0.1-1	Yes
hydrochloric acid	7647-01-0	0.1-1	Yes

Kit Component Name ChIP Elution Buffer (2X)

Chemical Name	CAS No	Weight %	Hazardous
sodium dodecyl sulphate	151-21-3	1-5	Yes
trometamol	77-86-1	1-5	Yes
hydrochloric acid	7647-01-0	0.1-1	Yes

Kit Component Name 5M NaCl

This product does not contain substances at concentrations requiring disclosure under 29 CFR 1910.1200 (OSHA Hazard Communication Standard).

SECTION 4. First-aid measures

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

Skin contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation occurs, get medical advice/attention.

Inhalation IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. 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.

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

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Advice for emergency responders

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.
Protection of first-aiders	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

SECTION 5. Fire-fighting measures

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.

Specific hazards arising from the chemical

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

Explosion Data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	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.
Other information	No information available.

Environmental precautions

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.

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.

SECTION 7. Handling and storage

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.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
Packaging material	No information available.
Incompatible products	Strong acids. Strong bases. Oxidizing agents.

SECTION 8. Exposure controls/personal protection

Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH REL
hydrochloric acid	Ceiling: 2 ppm	Ceiling: 5 ppm Ceiling: 7 mg/m^3	IDLH : 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m^3

Appropriate engineering controls

Showers, eyewash stations, and ventilation systems.

Individual protection measures, such as personal protective equipment

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

Eye/face protection	Tightly fitting safety goggles.
Skin and body protection	Wear protective gloves/clothing.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene measures	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.

SECTION 9. 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.

Information on basic physical and chemical properties

Kit Component	ChIP Buffer (10X)
Physical state	Liquid
Appearance	Translucent
Color	Clear

pH VALUE	8.1
Remarks	@ 20 °C

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

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

SECTION 10. Stability and reactivity

Reactivity

No information available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous reactions	None under normal processing.
Hazardous polymerization	None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Strong acids. Strong bases. Oxidizing agents.

Hazardous Decomposition Products

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

SECTION 11. Toxicological information

Information on likely routes of exposure

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.

Inhalation May cause irritation of respiratory tract.

Eye contact .

Kit Component	ChIP Elution Buffer (2X)
Eye contact	Expected to be an irritant based on components

Kit Component	ChIP Buffer (10X)
Eye contact	May cause irreversible damage to eyes

Skin contact .

Kit Component	ChIP Buffer (10X)
Skin contact	Expected to be an irritant based on components

Ingestion Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Information on toxicological effects

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	= 1800 mg/kg (Rat)	= 8000 mg/kg (Rabbit)	-
trometamol	5900 mg/kg (Rat)	-	-
sodium dodecyl sulphate	= 1288 mg/kg (Rat)	= 580 mg/kg (Rabbit)	> 3900 mg/m³ (Rat) 1 h
glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2)	2800 mg/kg (Rat)	-	-
sodium 3-alpha,12-alphadihydroxy-5beta-cholan-24-oate	1370 mg/kg (Rat)	-	-

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

Skin and Eye Corrosion/Irritation

Kit Component	ChIP Buffer (10X)
Skin corrosion/irritation	Causes skin irritation
Serious eye damage/eye irritation	Risk of serious damage to eyes

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

Sensitization No information available.

Mutagenic effects No information available.

Carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity No information available.

Systemic Target Organ Toxicity (STOT) No information available

Aspiration Hazard No information available.

SECTION 12. Ecological information

Ecotoxicity

Product Information

Kit Component	ChIP Buffer (10X)
Ecotoxicity	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
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
trometamol	-	-	NOEC >100 mg/L (Selenastrum capricornutum) 96 h
sodium dodecyl sulphate	EC50 53 mg/L (Desmodesmus subspicatus) 72 h EC50 3.59 - 15.6 mg/L (Pseudokirchneriella subcapitata) 96 h EC50 117 mg/L (Pseudokirchneriella subcapitata) 96 h EC50 30 - 100 mg/L (Desmodesmus subspicatus) 96 h	LC50 8 - 12.5 mg/L (Pimephales promelas) 96 h LC50 1.31 mg/L (Cyprinus carpio) 96 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 15 - 18.9 mg/L (Pimephales promelas) 96 h	EC50 1.8 mg/L (Daphnia magna) 48 h
hydrochloric acid	-	LC50 282 mg/L (Gambusia affinis) 96 h	-

Persistence and degradability .

Kit Component	ChIP Buffer (10X)
Persistence and degradability	Not readily biodegradable

Bioaccumulation No information available.

Chemical Name	Octanol-Water Partition Coefficient
sodium dodecyl sulphate	1.6

Mobility No information available

Other adverse effects

No information available.

SECTION 13. Disposal considerations

Waste Disposal Methods

Dispose of in accordance with all applicable national environmental laws and regulations.

Disposal considerations

Do not empty into drains; dispose of this material and its container in a safe way.

SECTION 14. Transport information

This material is not subject to regulation as a hazardous material for shipping.

SECTION 15. Regulatory information

North American Inventory Listing

Chemical Name	TSCA 8(b)	TSCA 12(b)	DSL	NDSL
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	Listed	Not Listed	Listed	Not Listed
trometamol	Listed	Not Listed	Listed	Not Listed
sodium dodecyl sulphate	Listed	Not Listed	Listed	Not Listed
glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2)	Not Listed	Not Listed	Listed	Not Listed
sodium 3-alpha,12-alphadihydroxy-5beta-cholan-24-oate	Listed	Not Listed	Listed	Not Listed
hydrochloric acid	Listed	Not Listed	Listed	Not Listed

SARA 313

Refer to kit component SDS for full SARA Section 313 reporting requirements.

Chemical Name	CAS No	SARA 313 - Threshold Values %
hydrochloric acid	7647-01-0	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

Refer to kit component SDS for full Clean Water Act (CWA) reporting requirements.

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances	CWA - Bioaccumulative Chemicals of Concern (BCCs)
hydrochloric acid	5000 lb	Not Listed	Not Listed	Listed	Not Listed

CERCLA

Refer to kit component SDS for full Comprehensive Environmental Response Compensation and Liability Act (CERCLA) reporting requirements.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
hydrochloric acid	5000 lb	5000 lb

California Proposition 65

Refer to kit component SDS for full California Proposition 65 information.

U.S. State Right-to-Know Regulations

Refer to kit component SDS for applicable State Right-To-Know (RTK) information.

Chemical Name	New Jersey	Massachusetts	Pennsylvania
hydrochloric acid	Listed	Listed	Listed

SECTION 16. Other information

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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.

End of Safety Data Sheet