

Revision Date 09.04.2018

Version 2.1

aSECTION 1. Identification of 1.1 Product identifier	the substance/mixture and of the company/undertaking
Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	ChIP Dilution Buffer
REACH Registration Number	This product is a mixture. REACH Registration Number see section 3.
1.2 Relevant identified uses of th	e substance or mixture and uses advised against
Identified uses	Biochemical research/analysis For additional information on uses please refer to the Merck Chemicals portal (www.merckgroup.com).
1.3 Details of the supplier of the	safety data sheet
Company Responsible Department	Merck KGaA * 64271 Darmstadt * Germany * Phone:+49 6151 72-0 LS-QHC * e-mail: prodsafe@merckgroup.com
1.4 Emergency telephone number	Please contact the regional company representation in your country.

# S

	number
SEC	CTION 2. Hazards identification
2.	1 Classification of the substance or mixture
	Classification (REGULATION (EC) No 1272/2008)
	Eye irritation, Category 2, H319

Chronic aquatic toxicity, Category 3, H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

# 2.2 Label elements

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

Hazard pictograms



Signal word

Catalogue No. Product name 632271 Chromatin Immunoprecipitation (ChIP) Assay Kit ChIP Dilution Buffer

Warning

*Hazard statements* H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.

Precautionary statements Prevention P273 Avoid release to the environment. Response P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### Reduced labelling (≤125 ml)

Hazard pictograms



Signal word Warning

Hazard statements H412 Harmful to aquatic life with long lasting effects.

### 2.3 Other hazards

None known.

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

Chemical nature

Aqueous solution

### 3.1 Substance

Not applicable

# 3.2 Mixture

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	ChIP Dilution Buffer

#### Hazardous components (REGULATION (EC) No 1272/2008)

Chemical name (Concentration)

CAS-No. Registration number Classification Triton-X-100 (>= 1 % - < 2,5 % )

9002-93-1 \*)

Acute toxicity, Category 4, H302
Skin irritation, Category 2, H315
Serious eye damage, Category 1, H318
Acute aquatic toxicity, Category 1, H400
Chronic aquatic toxicity, Category 1, H410
M-Factor: 10

\*) A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

For the full text of the H-Statements mentioned in this Section, see Section 16.

### **SECTION 4. First aid measures**

4.1 Description of first aid measures

After inhalation: fresh air.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

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

irritant effects Vomiting, Dermatitis Risk of corneal clouding. Drying-out effect resulting in rough and chapped skin. Risk of serious damage to eyes.

**4.3 Indication of any immediate medical attention and special treatment needed** No information available.

### **SECTION 5. Firefighting measures**

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	ChIP Dilution Buffer

#### 5.1 Extinguishing media

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

*Unsuitable extinguishing media* For this substance/mixture no limitations of extinguishing agents are given.

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

Not combustible. Ambient fire may liberate hazardous vapours.

#### 5.3 Advice for firefighters

*Special protective equipment for firefighters* In the event of fire, wear self-contained breathing apparatus.

#### Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system. Suppress (knock down) gases/vapours/mists with a water spray jet.

# SECTION 6. Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

#### 6.2 Environmental precautions

Do not let product enter drains.

#### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

#### 6.4 Reference to other sections

Indications about waste treatment see section 13.

#### SECTION 7. Handling and storage

7.1 Precautions for safe handling Advice on safe handling Observe label precautions.

*Hygiene measures* Change contaminated clothing. Wash hands after working with substance.

# 7.2 Conditions for safe storage, including any incompatibilities

Catalogue No.

Product name

632271 Chromatin Immunoprecipitation (ChIP) Assay Kit ChIP Dilution Buffer

Storage conditions Tightly closed.

Recommended storage temperature see product label.

The data applies to the entire pack.

# 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

# SECTION 8. Exposure controls/personal protection

# 8.1 Control parameters

# 8.2 Exposure controls

### Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

### Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

*Eye/face protection* Safety glasses

# Hand protection

full contact:

er

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Other protective equipment protective clothing

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	ChIP Dilution Buffer

Respiratory protection

required when vapours/aerosols are generated.

Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

# Environmental exposure controls

Do not let product enter drains.

# SECTION 9. Physical and chemical properties

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

Form	liquid
Colour	clear colourless
Odour	No strong odour known.
Odour Threshold	No information available.
рН	8,0 - 8,2 at 20 °C
Melting point	No information available.
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.
Relative vapour density	No information available.
Density	No information available.
Relative density	No information available.

# according to Regulation (EC) No. 1907/2006

Catalogue No. Product name	632271 Chromatin Immunoprecipitation (ChIP) Assay Kit ChIP Dilution Buffer
Water solubility	No information available.
Partition coefficient: n-	No information available.
octanol/water Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none
9.2 Other data	

none

#### **SECTION 10. Stability and reactivity**

10.1 Reactivity

See section 10.3

#### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

The generally known reaction partners of water.

# 10.4 Conditions to avoid

no information available

# 10.5 Incompatible materials

no information available

# 10.6 Hazardous decomposition products

no information available

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	ChIP Dilution Buffer

#### SECTION 11. Toxicological information

#### 11.1 Information on toxicological effects Mixture

#### wixture

Acute oral toxicity Symptoms: Vomiting, Risk of aspiration upon vomiting., Pulmonary failure possible after aspiration of vomit., Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Acute toxicity estimate: > 2.000 mg/kg Calculation method

Acute inhalation toxicity

#### Symptoms: Possible damages:, mucosal irritations

*Acute dermal toxicity* This information is not available.

*Skin irritation* This information is not available.

*Eye irritation* Mixture causes serious eye irritation.

*Sensitisation* This information is not available.

*Germ cell mutagenicity* This information is not available.

*Carcinogenicity* This information is not available.

*Reproductive toxicity* This information is not available.

*Teratogenicity* This information is not available.

*Specific target organ toxicity - single exposure* This information is not available.

*Specific target organ toxicity - repeated exposure* This information is not available.

*Aspiration hazard* This information is not available.

### 11.2 Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

### Components

Triton-X-100

# Catalogue No.632271Product nameChromatin Immunoprecipitation (ChIP) Assay Kit<br/>ChIP Dilution Buffer

Acute oral toxicity LD50 Rat: 1.900 - 5.000 mg/kg (External MSDS) The value is given in analogy to the following substances:

Acute dermal toxicity LD50 Rabbit: > 3.000 mg/kg (External MSDS) The value is given in analogy to the following substances:

Skin irritation Rabbit Result: irritating OECD Test Guideline 404 The value is given in analogy to the following substances:

Sensitisation Sensitisation test: human Result: negative (External MSDS) The value is given in analogy to the following substances:

*Germ cell mutagenicity Genotoxicity in vitro* Mutagenicity (mammal cell test): Mouse lymphoma test Result: negative (Lit.)

#### **SECTION 12. Ecological information**

#### Mixture

12.1 Toxicity No information available.

- 12.2 Persistence and degradability No information available.
- 12.3 Bioaccumulative potential

No information available.

# 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

#### 12.6 Other adverse effects

Discharge into the environment must be avoided.

### Components

*Triton-X-100 Toxicity to fish* semi-static test LC50 Leuciscus idus (Golden orfe): 0,26 mg/l; 96 h Analytical monitoring: yes OECD Test Guideline 203 The value is given in analogy to the following substances:

*Toxicity to daphnia and other aquatic invertebrates* static test EC50 Daphnia magna (Water flea): 0,011 mg/l; 48 h (ECOTOX Database) The value is given in analogy to the following substances:

*Toxicity to algae* static test EC50 Pseudokirchneriella subcapitata (green algae): 1,9 mg/l; 96 h (ECHA) The value is given in analogy to the following substances:

# according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	ChIP Dilution Buffer

*Toxicity to fish (Chronic toxicity)* flow-through test Danio rerio (zebra fish): 0,012 mg/l Analytical monitoring: yes OECD Test Guideline 210 The value is given in analogy to the following substances:

*Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)* semi-static test NOEC Daphnia magna (Water flea): 0,03 mg/l; 21 d

Analytical monitoring: yes

OECD Test Guideline 202 The value is given in analogy to the following substances:

*Biodegradability* 22 %; 28 d; aerobic OECD Test Guideline 301C The value is given in analogy to the following substances:

Not readily biodegradable.

*M-Factor* 10

#### **SECTION 13. Disposal considerations**

*Waste treatment methods* See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

and transport (ADR/RID)	
14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.
Inland waterway transport (	ADN)
Not relevant	
Air transport (IATA)	
14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.
Sea transport (IMDG)	
14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	ChIP Dilution Buffer

### **SECTION 15. Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture EU regulations Major Accident Hazard SEVESO III Legislation Not applicable 96/82/EC Dangerous for the environment 9b Quantity 1: 200 t Quantity 2: 500 t Take note of Dir 94/33/EC on the protection of young people at Occupational restrictions work. Regulation (EC) No 1005/2009 on substances that not regulated deplete the ozone layer Regulation (EC) No 850/2004 of the European not regulated Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC Substances of very high concern (SVHC) This product does contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 59 above the respective regulatory concentration limit of > 0.1 % (w/w). Contains: Triton-X-100 National legislation Storage class 10 - 13

The data applies to the entire pack.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	ChIP Dilution Buffer

# **SECTION 16. Other information**

#### Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

# Training advice

Provide adequate information, instruction and training for operators.

### Labelling

Hazard pictograms



*Signal word* Warning

### Hazard statements

H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.

Precautionary statements Prevention P273 Avoid release to the environment. Response P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	ChIP Dilution Buffer

# Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org. Millipore Ref. 17-295

#### **Regional representation**

This information is given on the authorised Safety Data Sheet for your country.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.



# SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 Revision Date 09.04.2018

Version 2.1

SECTION 1. Identification of the su	ubstance/mixture and of the company/undertaking
1.1 Product identifier	
Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	Low Salt Immune Complex Wash Buffer
REACH Registration Number	This product is a mixture. REACH Registration Number see section 3.
1.2 Relevant identified uses of th	e substance or mixture and uses advised against
Identified uses	Biochemical research/analysis For additional information on uses please refer to the Merck Chemicals portal (www.merckgroup.com).
1.3 Details of the supplier of the	safety data sheet
Company Responsible Department	Merck KGaA * 64271 Darmstadt * Germany * Phone:+49 6151 72-0 LS-QHC * e-mail: prodsafe@merckgroup.com
1.4 Emergency telephone number	Please contact the regional company representation in your country.

# SECTION 2. Hazards identification

# 2.1 Classification of the substance or mixture

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

Eye irritation, Category 2, H319

Chronic aquatic toxicity, Category 3, H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

# 2.2 Label elements

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

Hazard pictograms



Signal word

Catalogue No.632271Product nameChromatin Immunoprecipitation (ChIP) Assay Kit<br/>Low Salt Immune Complex Wash Buffer

Warning

*Hazard statements* H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.

Precautionary statements Prevention P273 Avoid release to the environment. Response P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### Reduced labelling (≤125 ml)

Hazard pictograms



Signal word Warning

Hazard statements H412 Harmful to aquatic life with long lasting effects.

### 2.3 Other hazards

None known.

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

Chemical nature

Aqueous solution of inorganic and organic compounds.

#### 3.1 Substance

Not applicable

# 3.2 Mixture

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	Low Salt Immune Complex Wash Buffer

#### Hazardous components (REGULATION (EC) No 1272/2008)

Chemical name (Concentration) CAS-No. Registration number Classification

Triton-X-100 (>= 1 % - < 2,5 % )

9002-93-1 \*)

Acute toxicity, Category 4, H302		
Skin irritation, Category 2, H315		
Serious eye damage, Category 1, H318		
Acute aquatic toxicity, Category 1, H400		
Chronic aquatic toxicity, Category 1, H410		
M-Factor: 10		

\*) A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

For the full text of the H-Statements mentioned in this Section, see Section 16.

### **SECTION 4. First aid measures**

4.1 Description of first aid measures

After inhalation: fresh air.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

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

Risk of serious damage to eyes. irritant effects, Dermatitis, Vomiting Risk of corneal clouding. Drying-out effect resulting in rough and chapped skin.

**4.3 Indication of any immediate medical attention and special treatment needed** No information available.

#### **SECTION 5. Firefighting measures**

#### 5.1 Extinguishing media

The Safety Data Sheets for catalogue items are available at www.merckgroup.com

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	Low Salt Immune Complex Wash Buffer

#### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

*Unsuitable extinguishing media* For this substance/mixture no limitations of extinguishing agents are given.

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

Not combustible. Ambient fire may liberate hazardous vapours.

#### 5.3 Advice for firefighters

*Special protective equipment for firefighters* In the event of fire, wear self-contained breathing apparatus.

*Further information* none

#### SECTION 6. Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

#### 6.2 Environmental precautions

No special precautionary measures necessary.

#### 6.3 Methods and materials for containment and cleaning up

Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

### 6.4 Reference to other sections

Indications about waste treatment see section 13.

### SECTION 7. Handling and storage

7.1 Precautions for safe handling Advice on safe handling

Observe label precautions.

#### *Hygiene measures* Change contaminated clothing. Wash hands after working with substance.

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

Storage conditions Tightly closed.

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	Low Salt Immune Complex Wash Buffer

Recommended storage temperature see product label.

The data applies to the entire pack.

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

#### SECTION 8. Exposure controls/personal protection

#### 8.1 Control parameters

#### 8.2 Exposure controls

#### **Engineering measures**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

#### Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

*Eye/face protection* Safety glasses

#### Hand protection

full contact:

sp

	Glove material:	Nitrile rubber
	Glove thickness:	0,11 mm
	Break through time:	> 480 min
lash contact:		
	Glove material:	Nitrile rubber
	Glove thickness:	0,11 mm
	Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

*Other protective equipment* protective clothing

Respiratory protection

required when vapours/aerosols are generated. Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	Low Salt Immune Complex Wash Buffer

# substances

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

#### Environmental exposure controls

No special precautionary measures necessary.

# SECTION 9. Physical and chemical properties

# 9.1 Information on basic physical and chemical properties

Form	liquid
Colour	No information available.
Odour	No strong odour known.
Odour Threshold	No information available.
рН	No information available.
Melting point	No information available.
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.
Relative vapour density	No information available.
Density	No information available.
Relative density	No information available.
Water solubility	soluble
Partition coefficient: n- octanol/water	No information available.
Auto-ignition temperature	No information available.

according to Regulation (EC) No. 1907/2006

Catalogue No. Product name	632271 Chromatin Immunoprecipitation (ChIP) Assay Kit Low Salt Immune Complex Wash Buffer
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none
9.2 Other data	
none	

### SECTION 10. Stability and reactivity

#### 10.1 Reactivity

See section 10.3

#### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

#### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

The generally known reaction partners of water.

Strong oxidizing agents, Strong acids

### 10.4 Conditions to avoid

no information available

#### 10.5 Incompatible materials

no information available

#### 10.6 Hazardous decomposition products

no information available

#### SECTION 11. Toxicological information

#### 11.1 Information on toxicological effects Mixture

#### Acute oral toxicity

Symptoms: Vomiting, Risk of aspiration upon vomiting., Pulmonary failure possible after aspiration of vomit., Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Acute toxicity estimate: > 2.000 mg/kg Calculation method

#### Acute inhalation toxicity

Symptoms: Possible damages:, mucosal irritations

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	Low Salt Immune Complex Wash Buffer

*Acute dermal toxicity* This information is not available.

*Skin irritation* This information is not available.

*Eye irritation* Mixture causes serious eye irritation.

*Sensitisation* This information is not available.

*Germ cell mutagenicity* This information is not available.

*Carcinogenicity* This information is not available.

*Reproductive toxicity* This information is not available.

*Teratogenicity* This information is not available.

*Specific target organ toxicity - single exposure* This information is not available.

*Specific target organ toxicity - repeated exposure* This information is not available.

*Aspiration hazard* This information is not available.

# 11.2 Further information

We have no description of any symptoms of toxicity. Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

### Components

*Triton-X-100 Acute oral toxicity* LD50 Rat: 1.900 - 5.000 mg/kg (External MSDS) The value is given in analogy to the following substances:

Acute dermal toxicity

LD50 Rabbit: > 3.000 mg/kg (External MSDS) The value is given in analogy to the following substances:

Skin irritation Rabbit Result: irritating OECD Test Guideline 404 The value is given in analogy to the following substances:

Sensitisation Sensitisation test: human Result: negative (External MSDS) The value is given in analogy to the following substances:

Germ cell mutagenicity

according to Regulation (EC) No. 1907/2006

#### Catalogue No.

Product name

632271 Chromatin Immunoprecipitation (ChIP) Assay Kit Low Salt Immune Complex Wash Buffer

*Genotoxicity in vitro* Mutagenicity (mammal cell test): Mouse lymphoma test Result: negative (Lit.)

#### **SECTION 12. Ecological information**

#### Mixture

#### 12.1 Toxicity

No information available.

- **12.2 Persistence and degradability** No information available.
- **12.3 Bioaccumulative potential** No information available.
- **12.4 Mobility in soil** No information available.

# 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

#### 12.6 Other adverse effects

Discharge into the environment must be avoided.

### Components

*Triton-X-100 Toxicity to fish* semi-static test LC50 Leuciscus idus (Golden orfe): 0,26 mg/l; 96 h Analytical monitoring: yes OECD Test Guideline 203 The value is given in analogy to the following substances:

*Toxicity to daphnia and other aquatic invertebrates* static test EC50 Daphnia magna (Water flea): 0,011 mg/l; 48 h (ECOTOX Database) The value is given in analogy to the following substances:

*Toxicity to algae* static test EC50 Pseudokirchneriella subcapitata (green algae): 1,9 mg/l; 96 h (ECHA) The value is given in analogy to the following substances:

*Toxicity to fish (Chronic toxicity)* flow-through test Danio rerio (zebra fish): 0,012 mg/l Analytical monitoring: yes OECD Test Guideline 210 The value is given in analogy to the following substances:

*Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)* semi-static test NOEC Daphnia magna (Water flea): 0,03 mg/l; 21 d

Analytical monitoring: yes

OECD Test Guideline 202 The value is given in analogy to the following substances:

*Biodegradability* 22 %; 28 d; aerobic OECD Test Guideline 301C The value is given in analogy to the following substances:

Catalogu Product		632271 Chromatin Immunoprecipitation (ChIP) Assay Kit Low Salt Immune Complex Wash Buffer
	Not readily biodegradable.	
	<i>M-Factor</i> 10	

#### **SECTION 13. Disposal considerations**

*Waste treatment methods* See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14. Transport information Land transport (ADR/RID)	
14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.
Inland waterway transport (ADN)	
Not relevant	
Air transport (IATA)	
14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.
Sea transport (IMDG)	
14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.
<b>14.7 Transport in bulk according</b> Not relevant	to Annex II of MARPOL 73/78 and the IBC Code

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

# SECTION 15. Regulatory information

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

<i>EU regulations</i> Major Accident Hazard Legislation	SEVESO III Not applicable	
	96/82/EC Dangerous for the environment 9b Quantity 1: 200 t Quantity 2: 500 t	
Occupational restrictions	Take note of Dir 94/33/EC on the protection of young people at work.	

# according to Regulation (EC) No. 1907/2006

Catalogue No. Product name		oprecipitation (ChIP) Assay Kit Complex Wash Buffer
Regulation (EC) No 1005/2009 on deplete the ozone layer	substances that	not regulated
Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC		not regulated
Substances of very high concern (		This product does contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 59 above the respective regulatory concentration limit of > 0.1 % (w/w). Triton-X-100
<i>National legislation</i> Storage class 10 - The data applies to the entire pack	-	

# 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

#### **SECTION 16. Other information**

# Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

# Training advice

Provide adequate information, instruction and training for operators.

Catalogue No.

Product name

632271 Chromatin Immunoprecipitation (ChIP) Assay Kit Low Salt Immune Complex Wash Buffer

# Labelling

Hazard pictograms



*Signal word* Warning

Hazard statementsH319 Causes serious eye irritation.H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

P273 Avoid release to the environment.

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Key or legend to abbreviations and acronyms used in the safety data sheetUsed abbreviations and acronyms can be looked up at www.wikipedia.org.Millipore Ref.17-295

### Regional representation

This information is given on the authorised Safety Data Sheet for your country.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.



# SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 Revision Date 09.04.2018

Version 2.1

SECTION 1. Identification of the substance/mixture and of the company/undertaking 1.1 Product identifier		
Catalogue No.	632271	
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit	
	High Salt Immune Complex Wash Buffer	
REACH Registration Number	This product is a mixture. REACH Registration Number see section 3.	
1.2 Relevant identified uses of th	e substance or mixture and uses advised against	
Identified uses	Biochemical research/analysis For additional information on uses please refer to the Merck Chemicals portal (www.merckgroup.com).	
1.3 Details of the supplier of the s	safety data sheet	
Company Responsible Department	Merck KGaA * 64271 Darmstadt * Germany * Phone:+49 6151 72-0 LS-QHC * e-mail: prodsafe@merckgroup.com	
1.4 Emergency telephone number	Please contact the regional company representation in your country.	

# SECTION 2. Hazards identification

# 2.1 Classification of the substance or mixture

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

Eye irritation, Category 2, H319

Chronic aquatic toxicity, Category 3, H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

# 2.2 Label elements

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

Hazard pictograms



Signal word

Catalogue No.632271Product nameChromatin Immunoprecipitation (ChIP) Assay KitHigh Salt Immune Complex Wash Buffer

Warning

*Hazard statements* H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.

Precautionary statements Prevention P273 Avoid release to the environment. Response P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### Reduced labelling (≤125 ml)

Hazard pictograms



Signal word Warning

Hazard statements H412 Harmful to aquatic life with long lasting effects.

# 2.3 Other hazards

None known.

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

Chemical nature

Aqueous solution of inorganic and organic compounds.

#### 3.1 Substance

Not applicable

# 3.2 Mixture

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	High Salt Immune Complex Wash Buffer

#### Hazardous components (REGULATION (EC) No 1272/2008)

Chemical name (Concentration) CAS-No. Registration number

CAS-No. Registration number Classification Triton-X-100 (>= 1 % - < 2,5 % )

9002-93-1 \*)

Acute toxicity, Category 4, H302		
Skin irritation, Category 2, H315		
Serious eye damage, Category 1, H318		
Acute aquatic toxicity, Category 1, H400		
Chronic aquatic toxicity, Category 1, H410		
M-Factor: 10		

\*) A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

For the full text of the H-Statements mentioned in this Section, see Section 16.

### **SECTION 4. First aid measures**

4.1 Description of first aid measures

After inhalation: fresh air.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

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

Risk of serious damage to eyes. irritant effects, Dermatitis, Vomiting Risk of corneal clouding. Drying-out effect resulting in rough and chapped skin.

**4.3 Indication of any immediate medical attention and special treatment needed** No information available.

#### **SECTION 5. Firefighting measures**

#### 5.1 Extinguishing media

The Safety Data Sheets for catalogue items are available at www.merckgroup.com

# according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	High Salt Immune Complex Wash Buffer

#### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

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

Not combustible.

Ambient fire may liberate hazardous vapours.

#### 5.3 Advice for firefighters

*Special protective equipment for firefighters* In the event of fire, wear self-contained breathing apparatus.

#### Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

#### SECTION 6. Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

#### 6.2 Environmental precautions

Do not let product enter drains.

#### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

### 6.4 Reference to other sections

Indications about waste treatment see section 13.

#### SECTION 7. Handling and storage

7.1 Precautions for safe handling Advice on safe handling Observe label precautions.

*Hygiene measures* Change contaminated clothing. Wash hands after working with substance.

Change contaminated clothing. Wash hands after working with substance

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

Storage conditions Tightly closed.

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	High Salt Immune Complex Wash Buffer

Recommended storage temperature see product label.

The data applies to the entire pack.

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

#### SECTION 8. Exposure controls/personal protection

#### 8.1 Control parameters

#### 8.2 Exposure controls

#### **Engineering measures**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

#### Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

*Eye/face protection* Safety glasses

#### Hand protection

full contact:

sp

	Glove material:	Nitrile rubber
	Glove thickness:	0,11 mm
	Break through time:	> 480 min
lash contact:		
	Glove material:	Nitrile rubber
	Glove thickness:	0,11 mm
	Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

*Other protective equipment* protective clothing

Respiratory protection

required when vapours/aerosols are generated. Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	High Salt Immune Complex Wash Buffer

### substances

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

#### Environmental exposure controls

Do not let product enter drains.

# SECTION 9. Physical and chemical properties

# 9.1 Information on basic physical and chemical properties

Form	liquid
Colour	colourless
Odour	No strong odour known.
Odour Threshold	No information available.
рН	8,0 - 8,2 at 20 °C
Melting point	No information available.
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.
Relative vapour density	No information available.
Density	No information available.
Relative density	No information available.
Water solubility	No information available.
Partition coefficient: n- octanol/water	No information available.

according to Regulation (EC) No. 1907/2006

Catalogue No. Product name	632271 Chromatin Immunoprecipitation (ChIP) Assay Kit High Salt Immune Complex Wash Buffer
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none
9.2 Other data	
none	

#### SECTION 10. Stability and reactivity

#### 10.1 Reactivity

See section 10.3

#### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

# 10.3 Possibility of hazardous reactions

Violent reactions possible with:

The generally known reaction partners of water.

Strong oxidizing agents, Strong acids

#### 10.4 Conditions to avoid

no information available

#### 10.5 Incompatible materials

no information available

**10.6 Hazardous decomposition products** no information available

# SECTION 11. Toxicological information

# 11.1 Information on toxicological effects

# Mixture

```
Acute oral toxicity
```

Symptoms: Vomiting, Risk of aspiration upon vomiting., Pulmonary failure possible after aspiration of vomit., Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Acute toxicity estimate: > 2.000 mg/kg Calculation method

according to Regulation (EC) No. 1907/2006

Catalogue No.632271Product nameChromatin Immunoprecipitation (ChIP) Assay KitHigh Salt Immune Complex Wash Buffer

#### Acute inhalation toxicity

Symptoms: Possible damages:, mucosal irritations

*Acute dermal toxicity* This information is not available.

*Skin irritation* This information is not available.

*Eye irritation* Mixture causes serious eye irritation.

*Sensitisation* This information is not available.

*Germ cell mutagenicity* This information is not available.

*Carcinogenicity* This information is not available.

*Reproductive toxicity* This information is not available.

*Teratogenicity* This information is not available.

*Specific target organ toxicity - single exposure* This information is not available.

*Specific target organ toxicity - repeated exposure* This information is not available.

*Aspiration hazard* This information is not available.

#### 11.2 Further information

We have no description of any symptoms of toxicity. Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

#### Components

#### Triton-X-100

Acute oral toxicity LD50 Rat: 1.900 - 5.000 mg/kg (External MSDS) The value is given in analogy to the following substances:

Acute dermal toxicity LD50 Rabbit: > 3.000 mg/kg (External MSDS) The value is given in analogy to the following substances:

Skin irritation Rabbit Result: irritating OECD Test Guideline 404 The value is given in analogy to the following substances:

Sensitisation Sensitisation test: human Result: negative (External MSDS) The value is given in analogy to the following substances:

according to Regulation (EC) No. 1907/2006

#### Catalogue No.

Product name

632271 Chromatin Immunoprecipitation (ChIP) Assay Kit High Salt Immune Complex Wash Buffer

*Germ cell mutagenicity Genotoxicity in vitro* Mutagenicity (mammal cell test): Mouse lymphoma test Result: negative (Lit.)

#### **SECTION 12. Ecological information**

#### Mixture

# 12.1 Toxicity

No information available.

**12.2 Persistence and degradability** No information available.

12.3 Bioaccumulative potential

No information available.

#### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

#### 12.6 Other adverse effects

Discharge into the environment must be avoided.

# Components

*Triton-X-100 Toxicity to fish* semi-static test LC50 Leuciscus idus (Golden orfe): 0,26 mg/l; 96 h Analytical monitoring: yes OECD Test Guideline 203 The value is given in analogy to the following substances:

*Toxicity to daphnia and other aquatic invertebrates* static test EC50 Daphnia magna (Water flea): 0,011 mg/l; 48 h (ECOTOX Database) The value is given in analogy to the following substances:

*Toxicity to algae* static test EC50 Pseudokirchneriella subcapitata (green algae): 1,9 mg/l; 96 h (ECHA) The value is given in analogy to the following substances:

*Toxicity to fish (Chronic toxicity)* flow-through test Danio rerio (zebra fish): 0,012 mg/l Analytical monitoring: yes OECD Test Guideline 210 The value is given in analogy to the following substances:

*Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)* semi-static test NOEC Daphnia magna (Water flea): 0,03 mg/l; 21 d

Analytical monitoring: yes

OECD Test Guideline 202 The value is given in analogy to the following substances:

# according to Regulation (EC) No. 1907/2006

#### Catalogue No.

Product name

632271 Chromatin Immunoprecipitation (ChIP) Assay Kit High Salt Immune Complex Wash Buffer

*Biodegradability* 22 %; 28 d; aerobic OECD Test Guideline 301C The value is given in analogy to the following substances:

Not readily biodegradable.

*M-Factor* 10

### SECTION 13. Disposal considerations

*Waste treatment methods* See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

# SECTION 14. Transport information

Land transport (ADR/RID)	
14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.
Inland waterway transport (ADN)	
Not relevant	
Air transport (IATA)	
14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.
Sea transport (IMDG)	
14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

# **SECTION 15. Regulatory information**

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

EU regulations	
Major Accident Hazard	SEVESO III
Legislation	Not applicable

according to Regulation (EC) No. 1907/2006

Catalogue No. Product name		noprecipitation (ChIP) Assay Kit e Complex Wash Buffer
	96/82/EC Dangerous for the env 9b Quantity 1: 200 t Quantity 2: 500 t	vironment
Occupational restrictions	Take note of Dir 94/33 work.	B/EC on the protection of young people at
Regulation (EC) No 1005/200 deplete the ozone layer	09 on substances that	not regulated
Regulation (EC) No 850/2004 Parliament and of the Counci persistent organic pollutants Directive 79/117/EEC	il of 29 April 2004 on	not regulated
Substances of very high concern (SVHC)		This product does contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 59 above the respective regulatory concentration limit of > 0.1 % (w/w).
	Contains:	Triton-X-100
<i>National legislation</i> Storage class	10 - 13	

The data applies to the entire pack.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

# SECTION 16. Other information

#### Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

# Training advice

according to Regulation (EC) No. 1907/2006

Catalogue No. Product name

632271 Chromatin Immunoprecipitation (ChIP) Assay Kit High Salt Immune Complex Wash Buffer

Provide adequate information, instruction and training for operators.

Labelling

Hazard pictograms



*Signal word* Warning

#### Hazard statements

H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

P273 Avoid release to the environment.

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Key or legend to abbreviations and acronyms used in the safety data sheet Used abbreviations and acronyms can be looked up at www.wikipedia.org. Millipore Ref. 17-295

#### **Regional representation**

This information is given on the authorised Safety Data Sheet for your country.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.



### SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 Revision Date 09.04.2018

Version 2.1

SECTION 1. Identification of the su	ubstance/mixture and of the company/undertaking
1.1 Product identifier	
Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	LiCI Immune Complex Wash Buffer
REACH Registration Number	This product is a mixture. REACH Registration Number see section 3.
1.2 Relevant identified uses of th	e substance or mixture and uses advised against
Identified uses	Biochemical research/analysis For additional information on uses please refer to the Merck Chemicals portal (www.merckgroup.com).
1.3 Details of the supplier of the	safety data sheet
Company	Merck KGaA * 64271 Darmstadt * Germany * Phone:+49 6151 72-0
Responsible Department	LS-QHC * e-mail: prodsafe@merckgroup.com
1.4 Emergency telephone number	Please contact the regional company representation in your country.

#### SECTION 2. Hazards identification

#### 2.1 Classification of the substance or mixture

This mixture is not classified as dangerous according to European Union legislation.

#### 2.2 Label elements

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

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Safety data sheet available on request.

#### 2.3 Other hazards

None known.

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

Chemical nature	Aqueous solution
3.1 Substance	

Catalogue No. 632271 Product name Chromatin Immunoprecipitation (ChIP) Assay Kit LiCI Immune Complex Wash Buffer

Not applicable

#### 3.2 Mixture

#### Hazardous components (REGULATION (EC) No 1272/2008)

Chemical name (Concentration)

CAS-No.Registration numberClassificationLithium chloride (>= 1 % - < 3 % )</td>Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

7447-41-8 01-2119560574-35-

XXXX

Acute toxicity, Category 4, H302 Skin irritation, Category 2, H315 Eye irritation, Category 2, H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### SECTION 4. First aid measures

**4.1 Description of first aid measures** After inhalation: fresh air.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

After eye contact: rinse out with plenty of water. Remove contact lenses.

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

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

The following applies to lithium compounds in general: when handled or used inappropriately, the absorption of large quantities is followed by CNS disorders, agitation, spasms, ataxia (impaired locomotor coordination) due to disturbed electrolyte balance.

**4.3 Indication of any immediate medical attention and special treatment needed** No information available.

#### **SECTION 5. Firefighting measures**

5.1 Extinguishing media

Suitable extinguishing media

#### according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	LiCI Immune Complex Wash Buffer

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

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

#### Not combustible.

Ambient fire may liberate hazardous vapours.

#### 5.3 Advice for firefighters

*Special protective equipment for firefighters* In the event of fire, wear self-contained breathing apparatus.

#### Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

#### SECTION 6. Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

#### 6.2 Environmental precautions

Do not let product enter drains.

#### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

#### 6.4 Reference to other sections

Indications about waste treatment see section 13.

#### SECTION 7. Handling and storage

#### 7.1 Precautions for safe handling

*Advice on safe handling* Observe label precautions.

*Hygiene measures* Change contaminated clothing. Wash hands after working with substance.

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

*Storage conditions* Tightly closed.

Recommended storage temperature see product label.

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	LiCI Immune Complex Wash Buffer

The data applies to the entire pack.

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

	-	controls/personal protection		
0	.1 Control parameter	15		
	Derived No Effect I	Level (DNEL)		
	Lithium chloride (7	447-41-8)		
	Worker DNEL, acute	Systemic effects	dermal	100 mg/kg Body weight
	Worker DNEL, acute	Systemic effects	inhalation	30 mg/m³
	Worker DNEL, longterm	Systemic effects	dermal	73,2 mg/kg Body weight
	Worker DNEL, longterm	Systemic effects	inhalation	10 mg/m³
	Consumer DNEL, longterm	Systemic effects	dermal	72,3 mg/kg Body weight
	Consumer DNEL, longterm	Systemic effects	inhalation	10 mg/m³
	Consumer DNEL, longterm	Systemic effects	oral	7,32 mg/kg Body weight
	0	t Concentration (PNEC)		
	Lithium chloride (7	(447-41-8)		
	PNEC Fresh water		10,4 mg/l	
	PNEC Fresh water sedi	ment	49,9 mg/kg	
	PNEC Marine water		1,004 mg/l	
	PNEC Marine sediment	:	4,99 mg/kg	
	PNEC Soil		4,13 mg/kg	

PNEC Sewage treatment plant

#### 8.2 Exposure controls

#### **Engineering measures**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

140,2 mg/l

See section 7.1.

#### Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

*Eye/face protection* Safety glasses

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	LiCI Immune Complex Wash Buffer

Hand protection splash contact:

opidon oonidot.		
	Glove material:	Nitrile rubber
	Glove thickness:	0,11 mm
	Break through time:	> 480 min
full contact:		
	Glove material:	Nitrile rubber
	Glove thickness:	0,11 mm
	Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (splash contact), KCL 741 Dermatril® L (full contact).

This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

# Other protective equipment protective clothing

#### Respiratory protection

required when vapours/aerosols are generated.

Recommended Filter type: Filter P 1 (acc. to DIN 3181) for solid particles of inert substances The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

#### Environmental exposure controls

Do not let product enter drains.

#### SECTION 9. Physical and chemical properties

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

Form	liquid
Colour	clear colourless
Odour	No strong odour known.
Odour Threshold	No information available.
рН	8,0 - 8,2 at 20 °C
Melting point	No information available.

according to Regulation (EC) No. 1907/2006

Catalogue No. Product name	632271 Chromatin Immunoprecipitation (ChIP) Assay Kit LiCI Immune Complex Wash Buffer
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.
Relative vapour density	No information available.
Density	No information available.
Relative density	No information available.
Water solubility	No information available.
Partition coefficient: n- octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none
9.2 Other data	

none

#### SECTION 10. Stability and reactivity

#### 10.1 Reactivity

See section 10.3

#### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

#### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

The generally known reaction partners of water.

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	LiCI Immune Complex Wash Buffer

#### 10.4 Conditions to avoid no information available

10.5 Incompatible materials no information available

#### **10.6 Hazardous decomposition products** no information available

#### SECTION 11. Toxicological information

#### 11.1 Information on toxicological effects Mixture

Acute oral toxicity Acute toxicity estimate: > 2.000 mg/kg Calculation method

*Acute inhalation toxicity* This information is not available.

*Acute dermal toxicity* This information is not available.

*Skin irritation* This information is not available.

*Eye irritation* This information is not available.

*Sensitisation* This information is not available.

*Germ cell mutagenicity* This information is not available.

*Carcinogenicity* This information is not available.

*Reproductive toxicity* This information is not available.

*Teratogenicity* This information is not available.

*Specific target organ toxicity - single exposure* This information is not available.

*Specific target organ toxicity - repeated exposure* This information is not available.

*Aspiration hazard* This information is not available.

#### 11.2 Further information

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	LiCI Immune Complex Wash Buffer

The following applies to lithium compounds in general: when handled or used inappropriately, the absorption of large quantities is followed by CNS disorders, agitation, spasms, ataxia (impaired locomotor coordination) due to disturbed electrolyte balance. Hazardous properties cannot be excluded, but are relatively improbable due to the low concentration of the dissolved substance(s). Handle in accordance with good industrial hygiene and safety practice.

#### Components

Lithium chloride Acute oral toxicity LD50 Rat: 526 mg/kg (RTECS)

> Acute inhalation toxicity LC50 Rat: > 5,57 mg/l; 4 h ; aerosol OECD Test Guideline 403

Acute dermal toxicity LD50 Rat: > 2.000 mg/kg OECD Test Guideline 402

*Skin irritation* Rabbit Result: Irritations (IUCLID)

*Eye irritation* Rabbit Result: Eye irritation OECD Test Guideline 405

Sensitisation Buehler Test Guinea pig Result: negative Method: OECD Test Guideline 406

*Germ cell mutagenicity Genotoxicity in vitro* Ames test Result: negative (Lit.)

#### **SECTION 12. Ecological information**

#### Mixture

**12.1 Toxicity** No information available.

- **12.2 Persistence and degradability** No information available.
- **12.3 Bioaccumulative potential** No information available.

#### 12.4 Mobility in soil

No information available.

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	LiCI Immune Complex Wash Buffer

#### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

#### 12.6 Other adverse effects

Discharge into the environment must be avoided.

#### Components

*Lithium chloride Toxicity to fish* static test LC50 Oncorhynchus mykiss (rainbow trout): 158 mg/l; 96 h Analytical monitoring: yes OECD Test Guideline 203

*Toxicity to daphnia and other aquatic invertebrates* static test EC50 Daphnia magna (Water flea): 249 mg/l; 48 h OECD Test Guideline 202

*Toxicity to algae* static test EC50 Desmodesmus subspicatus (green algae): > 400 mg/l; 72 h OECD Test Guideline 201

#### Biodegradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

#### **SECTION 13. Disposal considerations**

#### Waste treatment methods

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14. Transport information Land transport (ADR/RID)	
14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.
<b>Inland waterway transport (ADN)</b> Not relevant	
Air transport (IATA)	
14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.
Sea transport (IMDG)	

according to Regulation (EC) No. 1907/2006

Catalogue No. Product name		noprecipitation (ChIP) Assay Kit nplex Wash Buffer
14.1 - 14.6	Not classified as o regulations.	dangerous in the meaning of transport
<b>14.7 Transport in bulk accord</b> Not relevant	ling to Annex II of MAR	POL 73/78 and the IBC Code
THIS TRANSPORT DATA AF	PLIES TO THE ENTIR	E PACK!
SECTION 15. Regulatory informa 15.1 Safety, health and environ <i>EU regulations</i> Major Accident Hazard Legislation		lation specific for the substance or mixture
	SEVESO III Not applicable	
Regulation (EC) No 1005/200 deplete the ozone layer	09 on substances that	not regulated
Regulation (EC) No 850/2004 Parliament and of the Counc persistent organic pollutants Directive 79/117/EEC	il of 29 April 2004 on	not regulated
Substances of very high cond		This product does contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 59 above the respective regulatory concentration limit of > $0.1 \%$ (w/w). polymer of ethylene glycol and
<i>National legislation</i> Storage class The data applies to the entire	10 - 13	nonylphenol (ca.10 EO)

#### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	LiCI Immune Complex Wash Buffer

#### **SECTION 16. Other information**

#### Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

#### Training advice

Provide adequate information, instruction and training for operators.

Key or legend to abbreviations and acronyms used in the safety data sheetUsed abbreviations and acronyms can be looked up at www.wikipedia.org.Millipore Ref.17-295

#### **Regional representation**

This information is given on the authorised Safety Data Sheet for your country.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.



### SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 Revision Date 09.04.2018

Version 2.1

SECTION 1. Identification of the su 1.1 Product identifier	ubstance/mixture and of the company/undertaking
Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	0.5M EDTA
REACH Registration Number	This product is a mixture. REACH Registration Number see section 3.
1.2 Relevant identified uses of th	e substance or mixture and uses advised against
Identified uses	Biochemical research/analysis For additional information on uses please refer to the Merck Chemicals portal (www.merckgroup.com).
1.3 Details of the supplier of the	safety data sheet
Company Responsible Department	Merck KGaA * 64271 Darmstadt * Germany * Phone:+49 6151 72-0 LS-QHC * e-mail: prodsafe@merckgroup.com
1.4 Emergency telephone number	Please contact the regional company representation in your country.

#### SECTION 2. Hazards identification

#### 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2, H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 2.2 Label elements

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

Hazard pictograms



*Signal word* Warning

Catalogue No.632271Product nameChromatin Immunoprecipitation (ChIP) Assay Kit0.5M EDTA

*Hazard statements* H319 Causes serious eye irritation.

Precautionary statements

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### Reduced labelling (≤125 ml)

Hazard pictograms



*Signal word* Warning

#### 2.3 Other hazards

None known.

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

Chemical nature Aqueous solution 3.1 Substance Not applicable

#### 3.2 Mixture

#### Hazardous components (REGULATION (EC) No 1272/2008)

Chemical name (Concentration)

\*)

CAS-No. Registration number Classification

Ethylenediaminetetraacetic acid (>= 10 % - < 20 % )

60-00-4

Eye irritation, Category 2, H319

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	0.5M EDTA

\*) A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### SECTION 4. First aid measures

#### 4.1 Description of first aid measures

After inhalation: fresh air.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

# **4.2 Most important symptoms and effects, both acute and delayed** irritant effects, gastric pain, Nausea, Vomiting

**4.3 Indication of any immediate medical attention and special treatment needed** No information available.

#### **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

For this substance/mixture no limitations of extinguishing agents are given.

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

Not combustible. Ambient fire may liberate hazardous vapours. Fire may cause evolution of: nitrogen oxides

#### 5.3 Advice for firefighters

Special protective equipment for firefighters Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	0.5M EDTA

#### Further information

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

#### SECTION 6. Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

#### 6.2 Environmental precautions

Do not let product enter drains.

#### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb<sup>®</sup>). Dispose of properly. Clean up affected area.

#### 6.4 Reference to other sections

Indications about waste treatment see section 13.

#### SECTION 7. Handling and storage

#### 7.1 Precautions for safe handling

*Advice on safe handling* Observe label precautions.

*Hygiene measures* Change contaminated clothing. Wash hands after working with substance.

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

Storage conditions Tightly closed.

Recommended storage temperature see product label.

The data applies to the entire pack.

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

#### SECTION 8. Exposure controls/personal protection

#### 8.1 Control parameters

#### 8.2 Exposure controls

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	0.5M EDTA

#### **Engineering measures**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

#### Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

*Eye/face protection* Safety glasses

#### Hand protection

full contact:

	Glove material:	Nitrile rubber
	Glove thickness:	0,11 mm
	Break through time:	> 480 min
splash contact:		
	Glove material:	Nitrile rubber
	Glove thickness:	0,11 mm
	Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

# *Other protective equipment* protective clothing

#### Respiratory protection

required when vapours/aerosols are generated. Recommended Filter type: filter ABEK

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

#### Environmental exposure controls

Do not let product enter drains.

#### SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form

liquid

according to Regulation (EC) No. 1907/2006

Catalogue No. Product name	632271 Chromatin Immunoprecipitation (ChIP) Assay Kit 0.5M EDTA
Colour	clear colourless
Odour	No strong odour known.
Odour Threshold	No information available.
рН	7,2 at 20 °C
Melting point	No information available.
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.
Relative vapour density	No information available.
Density	No information available.
Relative density	No information available.
Water solubility	No information available.
Partition coefficient: n-	No information available.
octanol/water Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none
9.2 Other data	
none	

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	0.5M EDTA

#### **SECTION 10. Stability and reactivity**

#### 10.1 Reactivity

See section 10.3

#### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

#### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

The generally known reaction partners of water.

Strong oxidizing agents, Strong bases

#### 10.4 Conditions to avoid

no information available

#### 10.5 Incompatible materials

Copper, Copper alloys, Nickel

#### 10.6 Hazardous decomposition products

in the event of fire: See section 5.

#### SECTION 11. Toxicological information

#### 11.1 Information on toxicological effects Mixture

Acute oral toxicity Symptoms: gastric pain, Nausea, Vomiting Acute inhalation toxicity

Symptoms: Possible symptoms:, mucosal irritations

Acute dermal toxicity This information is not available.

*Skin irritation* This information is not available.

*Eye irritation* Mixture causes serious eye irritation.

*Sensitisation* This information is not available.

*Germ cell mutagenicity* This information is not available.

*Carcinogenicity* This information is not available.

*Reproductive toxicity* This information is not available.

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	0.5M EDTA

*Teratogenicity* This information is not available.

*Specific target organ toxicity - single exposure* This information is not available.

*Specific target organ toxicity - repeated exposure* This information is not available.

*Aspiration hazard* This information is not available.

#### 11.2 Further information

After uptake: Damage to: Kidney disturbed electrolyte balance. Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

#### Components

Ethylenediaminetetraacetic acid Acute oral toxicity

LD50 Rat: 4.500 mg/kg OECD Test Guideline 401

*Skin irritation* Rabbit Result: No irritation (ECHA)

*Eye irritation* Rabbit Result: Eye irritation (ECHA)

Sensitisation Maximisation Test Guinea pig Result: negative Method: OECD Test Guideline 406 The value is given in analogy to the following substances:

Germ cell mutagenicity Genotoxicity in vivo Chromosome aberration test Mouse male Oral Result: negative Method: OECD Test Guideline 474 The value is given in analogy to the following substances:

*Genotoxicity in vitro* Mutagenicity (mammal cell test): Result: positive (IUCLID)

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271	
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit	
	0.5M EDTA	

#### **SECTION 12. Ecological information**

#### Mixture

12.1 Toxicity

No information available.

**12.2 Persistence and degradability** No information available.

#### 12.3 Bioaccumulative potential

No information available.

#### 12.4 Mobility in soil

No information available.

#### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

#### 12.6 Other adverse effects

*Additional ecological information* Discharge into the environment must be avoided.

#### Components

*Ethylenediaminetetraacetic acid Toxicity to fish* LC50 Lepomis macrochirus (Bluegill sunfish): 41 mg/l; 96 h (in soft water) (IUCLID)

*Toxicity to daphnia and other aquatic invertebrates* EC50 Daphnia magna (Water flea): 113 mg/l; 48 h (ECOTOX Database)

*Toxicity to bacteria* static test EC20 activated sludge: > 500 mg/l; 30 min OECD Test Guideline 209 The value is given in analogy to the following substances:

*Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)* semi-static test NOEC Daphnia magna (Water flea): 25 mg/l; 21 d (ECHA)

*Biodegradability* 3 %; 30 d; aerobic OECD Test Guideline 301D Not readily biodegradable.

< 20 %; 28 d OECD Test Guideline 302B Not readily eliminated from water.

Ratio BOD/ThBOD BOD5 < 1 % (IUCLID)

Partition coefficient: n-octanol/water log Pow: 0,13 (experimental) Bioaccumulation is not expected. (ECHA)

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	0.5M EDTA

#### **SECTION 13. Disposal considerations**

*Waste treatment methods* See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

CTION 14. Transport information Land transport (ADR/RID)	
,	
14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.
Inland waterway transport (ADN)	
Not relevant	
Air transport (IATA)	
14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.
Sea transport (IMDG)	
14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

#### **SECTION 15. Regulatory information**

<i>EU regulations</i> Major Accident Hazard Legislation	96/82/EC Directive 96/82/EC does not apply		
	SEVESO III Not applicable		
Occupational restrictions	Take note of Dir 94/33/EC on the protection of young people at work.		
Regulation (EC) No 1005/200 deplete the ozone layer	not regulated		
Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC		not regulated	

according to Regulation (EC) No. 1907/2006

Catalogue No. Product name	632271 Chromatin II 0.5M EDTA	Chromatin Immunoprecipitation (ChIP) Assay Kit		
Substances of very high c	oncern (SVHC)	This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of $\geq$ 0.1 % (w/w).		
National legislation				
Storage class	10 - 13			
The data applies to the er	itire pack.			
15.2 Chemical safety assess	ment			
For this product a chemical safety assessment was not carried out.				

#### SECTION 16. Other information

#### Full text of H-Statements referred to under sections 2 and 3.

H319 Causes serious eye irritation.

#### Training advice

Provide adequate information, instruction and training for operators.

#### Labelling

Hazard pictograms



*Signal word* Warning

*Hazard statements* H319 Causes serious eye irritation.

#### Precautionary statements

#### Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	0.5M EDTA

#### Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org. Millipore Ref. 17-295

#### **Regional representation**

This information is given on the authorised Safety Data Sheet for your country.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.



### SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 Revision Date 09.04.2018

Version 2.1

SECTION 1 Identification of the su	ubstance/mixture and of the company/undertaking			
1.1 Product identifier	isstance/mixture and of the company/undertaking			
Catalogue No.	632271			
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit			
	SDS Lysis Buffer			
REACH Registration Number	This product is a mixture. REACH Registration Number see section 3.			
1.2 Relevant identified uses of th	1.2 Relevant identified uses of the substance or mixture and uses advised against			
Identified uses	Biochemical research/analysis For additional information on uses please refer to the Merck Chemicals portal (www.merckgroup.com).			
1.3 Details of the supplier of the safety data sheet				
Company Responsible Department	Merck KGaA * 64271 Darmstadt * Germany * Phone:+49 6151 72-0 LS-QHC * e-mail: prodsafe@merckgroup.com			
1.4 Emergency telephone number	Please contact the regional company representation in your country.			

#### **SECTION 2. Hazards identification**

#### 2.1 Classification of the substance or mixture

This mixture is not classified as dangerous according to European Union legislation.

#### 2.2 Label elements

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

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Safety data sheet available on request.

#### 2.3 Other hazards

None known.

#### SECTION 3. Composition/information on ingredients

- Chemical nature Aqueous solution of in
- 3.1 Substance

Aqueous solution of inorganic and organic compounds.

Catalogue No. Product name 632271 Chromatin Immunoprecipitation (ChIP) Assay Kit SDS Lysis Buffer

Not applicable

#### 3.2 Mixture

#### Hazardous components (REGULATION (EC) No 1272/2008)

Chemical name (Concentration)

CAS-No. Registration number Classification

dodecyl sulphate sodium salt (>= 1 % - < 2,5 %)

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

151-21-3 01-2119489461-32-

XXXX	Flammable solid, Category 2, H228
	Acute toxicity, Category 4, H302
	Skin irritation, Category 2, H315
	Serious eye damage, Category 1, H318
	Specific target organ toxicity - single exposure, Category 3, H335
	Chronic aquatic toxicity, Category 3, H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### **SECTION 4. First aid measures**

#### 4.1 Description of first aid measures

After inhalation: fresh air.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

After eye contact: rinse out with plenty of water. Remove contact lenses.

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

#### **4.2 Most important symptoms and effects, both acute and delayed** We have no description of any symptoms of toxicity.

**4.3 Indication of any immediate medical attention and special treatment needed** No information available.

#### **SECTION 5. Firefighting measures**

#### 5.1 Extinguishing media

#### according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	SDS Lysis Buffer

#### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

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

Not combustible.

Ambient fire may liberate hazardous vapours.

#### 5.3 Advice for firefighters

*Special protective equipment for firefighters* In the event of fire, wear self-contained breathing apparatus.

#### Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

#### SECTION 6. Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

#### 6.2 Environmental precautions

Do not let product enter drains.

#### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

#### 6.4 Reference to other sections

Indications about waste treatment see section 13.

#### SECTION 7. Handling and storage

7.1 Precautions for safe handling

*Advice on safe handling* Observe label precautions.

#### *Hygiene measures* Change contaminated clothing. Wash hands after working with substance.

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

Storage conditions Tightly closed.

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	SDS Lysis Buffer

Recommended storage temperature see product label.

The data applies to the entire pack.

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SEC	SECTION 8. Exposure controls/personal protection				
8.	8.1 Control parameters				
	Derived No Effect Level (DNEL)				
	dodecyl sulphate s	sodium salt (151-21-3)			
	Worker DNEL, longterm	Systemic effects	dermal	4060 mg/kg Body weight	
	Worker DNEL, longterm	Systemic effects	inhalation	285 mg/m³	
	Consumer DNEL, longterm	Systemic effects	dermal	2440 mg/kg Body weight	
	Consumer DNEL, longterm	Systemic effects	inhalation	85 mg/m³	
	Consumer DNEL, longterm	Systemic effects	oral	24 mg/kg Body weight	
	Predicted No Effect Concentration (PNEC)				
	dodecyl sulphate sodium salt (151-21-3)				
	PNEC Fresh water		0,137 mg/l		
	PNEC Marine water		0,0137 mg/l		
	PNEC Aquatic intermittent release		0,055 mg/l		
	PNEC Sewage treatme	ent plant	1084 mg/l		
	PNEC Fresh water sed	liment	4,82 mg/kg		

## 8.2 Exposure controls

**PNEC Marine sediment** 

PNEC Soil

## Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

0,482 mg/kg

0,882 mg/kg

See section 7.1.

#### Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

*Eye/face protection* Safety glasses

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	SDS Lysis Buffer

Hand protection

run oontaot.		
	Glove material:	Nitrile rubber
	Glove thickness:	0,11 mm
	Break through time:	> 480 min
splash contact:		
	Glove material:	Nitrile rubber
	Glove thickness:	0,11 mm
	Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Other protective equipment protective clothing

*Respiratory protection* Not required; except in case of aerosol formation.

#### Environmental exposure controls

Do not let product enter drains.

#### SECTION 9. Physical and chemical properties

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

Form	liquid
Colour	colourless
Odour	No strong odour known.
Odour Threshold	No information available.
рН	No information available.
Melting point	No information available.
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.

according to Regulation (EC) No. 1907/2006

Catalogue No. Product name	632271 Chromatin Immunoprecipitation (ChIP) Assay Kit SDS Lysis Buffer
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.
Relative vapour density	No information available.
Density	No information available.
Relative density	No information available.
Water solubility	at 20 °C soluble
Partition coefficient: n- octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none
9.2 Other data	

none

#### SECTION 10. Stability and reactivity

#### 10.1 Reactivity

See section 10.3

#### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

#### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

The generally known reaction partners of water.

#### 10.4 Conditions to avoid

no information available

#### 10.5 Incompatible materials

no information available

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	SDS Lysis Buffer

#### **10.6 Hazardous decomposition products** no information available

#### SECTION 11. Toxicological information

11.1 Information on toxicological effects Mixture

Acute oral toxicity Acute toxicity estimate: > 2.000 mg/kg Calculation method

*Acute inhalation toxicity* This information is not available.

Acute dermal toxicity This information is not available.

*Skin irritation* This information is not available.

*Eye irritation* This information is not available.

*Sensitisation* This information is not available.

*Germ cell mutagenicity* This information is not available.

*Carcinogenicity* This information is not available.

*Reproductive toxicity* This information is not available.

*Teratogenicity* This information is not available.

*Specific target organ toxicity - single exposure* This information is not available.

*Specific target organ toxicity - repeated exposure* This information is not available.

*Aspiration hazard* This information is not available.

#### 11.2 Further information

Hazardous properties cannot be excluded, but are relatively improbable due to the low concentration of the dissolved substance(s). Handle in accordance with good industrial hygiene and safety practice.

#### Components

dodecyl sulphate sodium salt

#### according to Regulation (EC) No. 1907/2006

Catalogue No.

#### Product name

632271 Chromatin Immunoprecipitation (ChIP) Assay Kit SDS Lysis Buffer

Acute oral toxicity LD50 Rat: 977 mg/kg OECD Test Guideline 401

Acute dermal toxicity LD50 Rabbit: > 2.000 mg/kg OECD Test Guideline 402

Skin irritation Rabbit Result: Irritations OECD Test Guideline 404

*Eye irritation* Rabbit Result: Irreversible effects on the eye OECD Test Guideline 405

Sensitisation Maximisation Test Result: negative (IUCLID)

Germ cell mutagenicity Genotoxicity in vitro Ames test Salmonella typhimurium Result: negative Method: OECD Test Guideline 471

Mutagenicity (mammal cell test): Mouse lymphoma test Result: negative Method: OECD Test Guideline 476

#### **SECTION 12. Ecological information**

#### Mixture

12.1 Toxicity

No information available.

- **12.2 Persistence and degradability** No information available.
- **12.3 Bioaccumulative potential** No information available.

**12.4 Mobility in soil** No information available.

#### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

#### 12.6 Other adverse effects

Discharge into the environment must be avoided.

#### Components

dodecyl sulphate sodium salt

#### according to Regulation (EC) No. 1907/2006

Catalogue No.	632271 Chromatin Immunoprecipitation (ChIP) Assay Kit	
Product name		
	SDS Lysis Buffer	

*Toxicity to fish* flow-through test LC50 Pimephales promelas (fathead minnow): 29 mg/l; 96 h OECD Test Guideline 203

flow-through test NOEC Pimephales promelas (fathead minnow): > 1,357 mg/l; 42 d (ECHA)

*Toxicity to daphnia and other aquatic invertebrates* EC0 E.sulcatum: 40 mg/l; 72 h (Lit.)

EC50 Daphnia magna (Water flea): 6 mg/l; 48 h (IUCLID)

*Toxicity to algae* static test EC50 Desmodesmus subspicatus (green algae): 53 mg/l; 72 h DIN 38412

Toxicity to bacteria microtox test EC50 Photobacterium phosphoreum: 0,46 mg/l; 30 min (IUCLID)

EC50 activated sludge: 130 mg/l; 3 h OECD Test Guideline 209

*Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)* flow-through test NOEC Ceriodaphnia dubia (water flea): 0,88 mg/l; 7 d

US-EPA

*Biodegradability* 95 %; 28 d; aerobic OECD Test Guideline 301B Readily biodegradable

Ratio BOD/ThBOD BOD5 99 % (Lit.)

Partition coefficient: n-octanol/water log Pow: <= -2,03 (20 °C) OECD Test Guideline 107

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

#### **SECTION 13. Disposal considerations**

Waste treatment methods

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

#### SECTION 14. Transport information

#### Land transport (ADR/RID)

14.1 - 14.6

Not classified as dangerous in the meaning of transport regulations.

Inland waterway transport (ADN)

according to Regulation (EC) No. 1907/2006

talogue No.	632271		
oduct name	Chromatin Immu	noprecipitation (ChIP) Assay Kit	
	SDS Lysis Buffer		
Not relevant			
Air transport (IATA)			
14.1 - 14.6	Not classified as regulations.	Not classified as dangerous in the meaning of transport regulations.	
Sea transport (IMDG)			
14.1 - 14.6	Not classified as regulations.	Not classified as dangerous in the meaning of transport regulations.	
<b>14.7 Transport in bulk acco</b> Not relevant	ording to Annex II of MAR	POL 73/78 and the IBC Code	
THIS TRANSPORT DATA	APPLIES TO THE ENTIR	E PACK!	
	4 <sup>1</sup>		
• •		lation anagific for the substance or mixture	
5.1 Safety, health and enviro		lation specific for the substance or mixture	
5.1 Safety, health and enviro EU regulations		lation specific for the substance or mixture	
5.1 Safety, health and enviro	onmental regulations/legis		
5.1 Safety, health and enviro <i>EU regulations</i> Major Accident Hazard	onmental regulations/legis		
5.1 Safety, health and enviro <i>EU regulations</i> Major Accident Hazard	96/82/EC 96/82/EC Directive 96/82/EC do SEVESO III Not applicable		
<i>EU regulations</i> Major Accident Hazard Legislation Regulation (EC) No 1005/2	96/82/EC Directive 96/82/EC do SEVESO III Not applicable 2009 on substances that	bes not apply	
5.1 Safety, health and enviro <i>EU regulations</i> Major Accident Hazard Legislation Regulation (EC) No 1005/2 deplete the ozone layer Regulation (EC) No 850/20 Parliament and of the Cour persistent organic pollutant	96/82/EC Directive 96/82/EC do SEVESO III Not applicable 2009 on substances that 004 of the European noil of 29 April 2004 on as and amending	not regulated	
5.1 Safety, health and enviro <i>EU regulations</i> Major Accident Hazard Legislation Regulation (EC) No 1005/2 deplete the ozone layer Regulation (EC) No 850/20 Parliament and of the Cour persistent organic pollutant Directive 79/117/EEC	96/82/EC Directive 96/82/EC do SEVESO III Not applicable 2009 on substances that 004 of the European noil of 29 April 2004 on as and amending	not regulated not regulated This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory	
5.1 Safety, health and enviro <i>EU regulations</i> Major Accident Hazard Legislation Regulation (EC) No 1005/2 deplete the ozone layer Regulation (EC) No 850/20 Parliament and of the Cour persistent organic pollutant Directive 79/117/EEC Substances of very high co	96/82/EC Directive 96/82/EC do SEVESO III Not applicable 2009 on substances that 004 of the European noil of 29 April 2004 on as and amending	not regulated not regulated This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory	

#### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

according to Regulation (EC) No. 1907/2006

Catalogue No.	632271
Product name	Chromatin Immunoprecipitation (ChIP) Assay Kit
	SDS Lysis Buffer

#### **SECTION 16. Other information**

#### Full text of H-Statements referred to under sections 2 and 3.

H228	Flammable solid.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

#### Training advice

Provide adequate information, instruction and training for operators.

#### Key or legend to abbreviations and acronyms used in the safety data sheet Used abbreviations and acronyms can be looked up at www.wikipedia.org. Millipore Ref. 17-295

#### **Regional representation**

This information is given on the authorised Safety Data Sheet for your country.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.