Safety Data Sheet (SDS)

Issuing Date: 2024-10-15 **Version:** 1

1. Identification

A. Product identifier

Product name SimpleChIP® Plus Enzymatic Chromatin IP Kit (Agarose Beads)

Kit Component
7005: Glycine Solution (10X)
7006: Buffer A (4X)
7007: Buffer B (4X)
7008: ChIP Buffer (10X)
7009: ChIP Elution Buffer (2X)
7010: 5 M NaCl
7011: 0.5 M EDTA, pH 8.0
9007: ChIP-Grade Protein G Agarose Beads
10007: DNA Binding Buffer
10008: DNA Wash Buffer
10009: DNA Elution Buffer
10010: DNA Purification Columns and Collection Tubes
7012: Protease Inhibitor Cocktail (200X)
7013: RNAse A (10 mg/ml)
7014: SimpleChIP® Human RPL30 Exon 3 Primers
7015: SimpleChIP® Mouse RPL30 Intron 2 Primers
7016: DTT (Dithiothreitol)
10011: Micrococcal Nuclease
10012: Proteinase K
4620: Histone H3 (D2B12) XP® Rabbit mAb (ChIP Formulated)
2729: Normal Rabbit IgG

Hazardous Components
7006: Buffer A (4X)
7008: ChIP Buffer (10X)
7011: 0.5 M EDTA, pH 8.0
10007: DNA Binding Buffer
7012: Protease Inhibitor Cocktail (200X)
10012: Proteinase K
7016: DTT (Dithiothreitol)

Product Code(s) 9004

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

Identified uses No information available

Uses advised against No information available

C. Supplier's details

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

Supplier
Seoulin Bioscience Co., Ltd.
경기도 성남시 분당구 대왕판교로 700
TEL: 1670-5911
E-mail: support@seoulin.co.kr

Supplier
Koram Biotech Co., Ltd.
서울시 강남구 선릉로76길 4
Tel: 02-556-0311
E-mail: koram@korambiotech.com

Legend:

For further information, please contact

Email address support@cellsignal.com

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

080-880-0468

2. Hazard(s) identification

A. Classification of the substance or mixture

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Respiratory sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3
Chronic aquatic toxicity	Category 3
Flammable liquids	Category 2

B. GHS Label elements, including precautionary statements

Signal Word
Danger

Hazard Statements
H225 - Highly flammable liquid and vapor
H302 - Harmful if swallowed
H315 - Causes skin irritation
H318 - Causes serious eye damage
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H336 - May cause drowsiness or dizziness
H412 - Harmful to aquatic life with long lasting effects

Legend:

Precautionary Statements - Prevention
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground/Bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash face, hands and any exposed skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
In case of inadequate ventilation wear respiratory protection.

Precautionary Statements - Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
Rinse mouth
In case of fire: Use CO2, dry chemical, or foam to extinguish

Precautionary Statements - Storage
Store in a well-ventilated place. Keep cool.
Store locked up.

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant.

C. Other hazards which do not result in classification

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

10007: DNA Binding Buffer - Reacts vigorously with bleach and releases toxic gas

3. Composition/information on ingredients

Kit Component **7005: Glycine Solution (10X)**

Chemical name	CAS No	Weight-%	Other information
glycine	56-40-6	5-10	-
sodium azide	26628-22-8	<0.1	-

Kit Component **7006: Buffer A (4X)**

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

Chemical name	CAS No	Weight-%	Other information
2-[2-[4-(2,4,4-trimethylpentan-2-yl)phe	9036-19-5	1-5	-

Legend:

noxy]ethoxy]ethanol			
sodium azide	26628-22-8	<0.1	-

Kit Component **7007: Buffer B (4X)**

Chemical name	CAS No	Weight-%	Other information
sodium azide	26628-22-8	<0.1	-

Kit Component **7008: ChIP Buffer (10X)**

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

Chemical name	CAS No	Weight-%	Other information
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	9002-93-1	5-10	-
glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2)	6381-92-6	1-5	-
sodium 3-alpha,12-alphadihydroxy-5beta-cholan-24-oate	302-95-4	0.1-1	-
sodium dodecyl sulphate	151-21-3	0.1-1	-

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

Chemical name	CAS No	Weight-%	Other information
sodium dodecyl sulphate	151-21-3	1-<3	-

Kit Component **7011: 0.5 M EDTA, pH 8.0**

WARNING: Causes skin irritation. Causes serious eye irritation.

Chemical name	CAS No	Weight-%	Other information
glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2)	6381-92-6	10-30	-

Kit Component **9007: ChIP-Grade Protein G Agarose Beads**

Chemical name	CAS No	Weight-%	Other information
sodium azide	26628-22-8	<=0.1	-

Kit Component **10007: DNA Binding Buffer**

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

Chemical name	CAS No	Weight-%	Other information
propan-2-ol	67-63-0	30-60	-
guanidinium chloride	50-01-1	30-60	-

NOTE: Reacts vigorously with bleach and releases toxic gas

Legend:

Kit Component **7012: Protease Inhibitor Cocktail (200X)**

WARNING: Causes skin irritation Causes serious eye irritation

Chemical name	CAS No	Weight-%	Other information
dimethyl sulfoxide	67-68-5	60-<100	-
benzenesulfonyl fluoride, 4-(2-aminoethyl)-, hydrochloride (1:1)	30827-99-7	1-<3	-

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

Chemical name	CAS No	Weight-%	Other information
glycerol	56-81-5	30-60	-

Kit Component **10011: Micrococcal Nuclease**

Chemical name	CAS No	Weight-%	Other information
glycerol	56-81-5	30-60	-
edetic acid	60-00-4	0.1-1	-

Kit Component **10012: Proteinase K**

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

Chemical name	CAS No	Weight-%	Other information
glycerol	56-81-5	30-60	-
Proteinase, Tritirachium album serine	39450-01-6	1-<3	-

Kit Component **4620: Histone H3 (D2B12) XP® Rabbit mAb (ChIP Formulated)**

Chemical name	CAS No	Weight-%	Other information
glycerol	56-81-5	30-60	-
sodium azide	26628-22-8	<0.02	-

Kit Component **2729: Normal Rabbit IgG**

Chemical name	CAS No	Weight-%	Other information
glycerol	56-81-5	30-60	-

Kit Component **7016: DTT (Dithiothreitol)**

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

Chemical name	CAS No	Weight-%	Other information
(R*,R*)-1,4-dimercaptobutane-2,3-diol	3483-12-3	60-100	-

Kit Component 7010: 5 M NaCl
7014: SimpleChIP® Human RPL30 Exon 3 Primers

Legend:

7015: SimpleChIP® Mouse RPL30 Intron 2 Primers
10008: DNA Wash Buffer
10009: DNA Elution Buffer
10010: DNA Purification Columns and Collection

These products do not contain substances at concentrations requiring disclosure

4. First-aid measures

A. In case of eye contact Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. Call a physician if irritation persists.

B. In case of skin contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If symptoms persist, call a physician.

C. In case of inhalation IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician. If breathing is irregular or stopped, administer artificial respiration.

D. In case of ingestion Rinse mouth. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

E. Indication of immediate medical attention and special treatment needed, if necessary

Note to physicians Treat symptomatically.

Symptoms Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. May cause skin, eye, and respiratory tract irritation.

5. Fire-fighting measures

A. Suitable (and unsuitable) extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Cool containers / tanks with water spray. Dry chemical. Carbon dioxide (CO_2). Alcohol-resistant foam.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire

B. Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes.

C. Special Protective Equipment for Firefighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas ELIMINATE all ignition sources (no smoking, flares,

sparks or flames in immediate area) Ensure adequate ventilation Avoid contact with skin, eyes and clothing Use personal protective equipment

For emergency responders Use personal protection recommended in Section 8.

B. Environmental precautions Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

C. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Cover liquid spill with sand, earth or other noncombustible absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and storage

A. Precautions for safe handling

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

B. Conditions for safe storage, including any incompatibilities

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

Incompatible products Strong acids. Strong bases. Oxidizing agents. Bleach.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

8. Exposure controls/personal protection

A. Control Parameters

Occupational exposure limits

Chemical name	Korea	ACGIH TLV
glycerol	TWA: 10 mg/m³	
propan-2-ol	STEL: 400 ppm TWA: 200 ppm	STEL: 400 ppm TWA: 200 ppm
sodium azide	Ceiling: 0.29 mg/m³	Ceiling: 0.29 mg/m³ Ceiling: 0.11 ppm

B. Appropriate engineering controls

Engineering controls Showers
Eyewash stations

Legend:

Ventilation systems.

Environmental exposure controls No information available.

C. Personal Protective Equipment

Respiratory protection In case of inadequate ventilation wear respiratory protection.

Eye protection Safety glasses with side-shields

Hand protection Impervious gloves.

Body protection Wear suitable protective clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties

Kit Component	**7005: Glycine Solution (10X)**
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH	6.58 (20 °C)

Kit Component	**7006: Buffer A (4X)**
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH	7.5 (20 °C)

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

Kit Component	**7008: ChIP Buffer (10X)**
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH	8.1 (20 °C)

Kit Component	**7009: ChIP Elution Buffer (2X)**
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH	7.5 (20 °C)

Kit Component	**7010: 5M NaCl**
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH	5.35 (20 °C)

Legend:

Kit Component	**7011: 0.5 M EDTA, pH 8.0**
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH	8 (20 °C)

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

Kit Component	**10007: DNA Binding Buffer**
Physical state	Liquid
Appearance	Clear
Color	Colorless
Odor	Alcohol-like odor
pH	7.0 (20 °C)
Flash point (°C)	>=21
Autoignition temp (°C)	425
Lower explosion limit	2%
Upper explosion limit	12%

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

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

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

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

Kit Component	**7013: RNAse A (10 mg/ml)**
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH	7.6 (20 °C)

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

Kit Component	**10012: Proteinase K (20 mg/ml)**

Legend:

Physical state	Liquid
Appearance	Clear
Color	Colorless

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

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

Kit Component	**4620: Histone H3 (D2B12) XP® Rabbit mAb (ChIP Formulated)**
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH	7.5 (20 °C)

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

Kit Component	**7016: DTT (Dithiothreitol)**
Physical state	Solid
Appearance	Powder
Color	White

10. Stability and reactivity

A. Chemical stability and possibility of hazardous reactions

Stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Explosion Data	
Sensitivity to mechanical impact	None
Sensitivity to static discharge	None

B. Conditions to Avoid	Extremes of temperature and direct sunlight Heat, flames and sparks Over a period of time, sodium azide may react with copper, lead, brass, or solder in plumbing systems to form an accumulation of the HIGHLY EXPLOSIVE compounds of lead azide & copper azide
C. Incompatible products	Strong acids, Strong bases, Oxidizing agents, Bleach
D. Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating and toxic gases and vapors

11. Toxicological information

Legend:

A. Information on the likely routes of exposure

Product Information

Inhalation

Kit Component	**10007: DNA Binding Buffer**
Inhalation	May cause drowsiness and dizziness
Kit Component	**7008: ChIP Buffer (10X)**
Inhalation	May cause irritation of respiratory tract
Kit Component	**10012: Proteinase K**
Inhalation	May cause allergy or asthma symptoms or breathing difficulties if inhaled
Kit Component	**7016: DTT (Dithiothreitol)**
Inhalation	May cause irritation of respiratory tract

Ingestion

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

Eye contact

Kit Component	**7006: Buffer A (4X)**
Eye contact	Causes serious eye damage
Kit Component	**7008: ChIP Buffer (10X)**
Eye contact	Causes serious eye damage
Kit Component	**7011: 0.5 M EDTA, pH 8.0**
Eye contact	Causes serious eye irritation
Kit Component	**10007: DNA Binding Buffer**
Eye contact	Causes serious eye irritation
Kit Component	**7012: Protease Inhibitor Cocktail (200X)**
Eye contact	Causes serious eye damage
Kit Component	**7016: DTT (Dithiothreitol)**
Eye contact	Causes serious eye irritation

Skin contact

Kit Component	**7008: ChIP Buffer (10X)**
Skin contact	Irritating to skin

Legend:

Kit Component **7011: 0.5 M EDTA, pH 8.0**
Skin contact Irritating to skin

Kit Component **7012: Protease Inhibitor Cocktail (200X)**
Skin contact Irritating to skin

Kit Component **7016: DTT (Dithiothreitol)**
Skin contact May cause slight irritation

Kit Component **10007: DNA Binding Buffer**
Skin contact Irritating to skin

Symptoms Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. May cause skin, eye, and respiratory tract irritation.

B. Health hazards information

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
glycerol	= 27200 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 5.85 mg/L (Rat) 4 h
(R*,R*)-1,4-dimercaptobutane-2,3-diol	400 mg/kg (Rat)	-	-
dimethyl sulfoxide	= 28300 mg/kg (Rat)	= 40000 mg/kg (Rat)	> 5.33 mg/L (Rat) 4 h
propan-2-ol	5000 mg/kg (Rat)	12800 mg/kg (Rabbit)	16000 ppm (Rat) 8h
guanidinium chloride	475 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3.181 mg/L (Rat) 4 h = 7.655 mg/L (Rat) 4 h
glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2)	2800 mg/kg (Rat)	-	-
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	= 1700 mg/kg (Rat) = 1800 mg/kg (Rat)	-	-
glycine	9550 mg/kg (Rat)	-	-
2-[2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethoxy]ethanol	1700 mg/kg (Rat)	-	-
sodium dodecyl sulphate	= 1288 mg/kg (Rat)	= 200 mg/kg (Rabbit)	> 3900 mg/m³ (Rat) 1 h
benzenesulfonyl fluoride, 4-(2-aminoethyl)-, hydrochloride (1:1)	2834 mg/kg (mouse)	-	-
sodium 3-alpha,12-alphadihydroxy-5beta-cholan-24-oate	1370 mg/kg (Rat)	-	-
edetic acid	> 2000 mg/kg (Rat)	-	-
sodium azide	= 27 mg/kg (Rat)	= 20 mg/kg (Rabbit) = 50 mg/kg (Rat)	-

Skin and Eye Corrosion/Irritation

Kit Component **7006: Buffer A (4X)**
Serious eye damage/eye irritation Risk of serious damage to eyes

Kit Component **7008: ChIP Buffer (10X)**
Serious eye damage/eye irritation Risk of serious damage to eyes
Skin corrosion/irritation Causes skin irritation

Legend:

Kit Component	**7011: 0.5 M EDTA, pH 8.0**
Serious eye damage/eye irritation	Causes serious eye irritation
Skin corrosion/irritation	Causes skin irritation

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

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

Kit Component	**7016: DTT (Dithiothreitol)**
Serious eye damage/eye irritation	Causes serious eye irritation
Skin corrosion/irritation	Causes skin irritation

Sensitization No information available.

Mutagenic effects No information available.

Carcinogenicity Group 3 - Not Classifiable as to Carcinogenicity in Humans.

Chemical name	IARC
propan-2-ol	3

Reproductive toxicity No information available.

Specific target organ toxicity (STOT) – single exposure Respiratory system

Specific target organ toxicity (STOT) – repeated exposure No information available

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

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

Aspiration hazard No information available.

12. Ecological information

A. Ecotoxicity The environmental impact of this product has not been fully investigated.

Product Information No information available

Component Information

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
glycerol	-	LC50 51 - 57 mL/L (Oncorhynchus	-

Legend:

		mykiss) 96 h	
dimethyl sulfoxide	-	LC50 34000 mg/L (Pimephales promelas) 96 h LC50 33 - 37 g/L (Oncorhynchus mykiss) 96 h LC50 40 g/L (Lepomis macrochirus) 96 h LC50 41.7 g/L (Cyprinus carpio) 96 h	-
propan-2-ol	EC50 1000 mg/L (Desmodesmus subspicatus) 96 h EC50 1000 mg/L (Desmodesmus subspicatus) 72 h	LC50 9640 mg/L (Pimephales promelas) 96 h LC50 11130 mg/L (Pimephales promelas) 96 h LC50 1400000 µg/L (Lepomis macrochirus) 96 h	EC50 13299 mg/L (Daphnia magna) 48 h
glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2)	-	LC50 320 mg/L (Poecilia reticulata) 96 h	-
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	-	LC50 8.9 mg/l (Pimephales promelas) 96 h	EC50 26 mg/l (Daphnia) 48 h
glycine	-	LC50 1000 mg/L (Oryzias latipes) 96 h	-
2-[2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethoxy]ethanol	EC50 0.21 mg/L (Selenastrum) 96 h	LC50 7.2 mg/L (Oncorhynchus mykiss) 96 h	LC50 8.6 mg/L (Daphnia magna) 48 h
sodium dodecyl sulphate	EC50 38 mg/L (Desmodesmus subspicatus) 96 h EC50 42 mg/L (Desmodesmus subspicatus) 96 h EC50 53 mg/L (Desmodesmus subspicatus) 72 h EC50 30 - 100 mg/L (Desmodesmus subspicatus) 96 h EC50 117 mg/L (Pseudokirchneriella subcapitata) 96 h EC50 3.59 - 15.6 mg/L (Pseudokirchneriella subcapitata) 96 h	LC50 15 - 18.9 mg/L (Pimephales promelas) 96 h LC50 8 - 12.5 mg/L (Pimephales promelas) 96 h LC50 22.1 - 22.8 mg/L (Pimephales promelas) 96 h LC50 4.3 - 8.5 mg/L (Oncorhynchus mykiss) 96 h LC50 4.62 mg/L (Oncorhynchus mykiss) 96 h LC50 4.2 mg/L (Oncorhynchus mykiss) 96 h LC50 7.97 mg/L (Brachydanio rerio) 96 h LC50 9.9 - 20.1 mg/L (Brachydanio rerio) 96 h LC50 4.06 - 5.75 mg/L (Lepomis macrochirus) 96 h LC50 4.2 - 4.8 mg/L (Lepomis macrochirus) 96 h LC50 4.5 mg/L (Lepomis macrochirus) 96 h LC50 5.8 - 7.5 mg/L (Pimephales promelas) 96 h LC50 10.2 - 22.5 mg/L (Pimephales promelas) 96 h LC50 6.2 - 9.6 mg/L (Pimephales promelas) 96 h LC50 13.5 - 18.3 mg/L (Poecilia reticulata) 96 h LC50 10.8 - 16.6 mg/L (Poecilia reticulata) 96 h LC50 1.31 mg/L (Cyprinus carpio) 96 h	EC50 1.8 mg/L (Daphnia magna) 48 h
edetic acid	EC50 1.01 mg/L (Desmodesmus subspicatus) 72 h	LC50 34 - 62 mg/L (Lepomis macrochirus) 96 h LC50 44.2 - 76.5 mg/L (Pimephales promelas) 96 h	EC50 113 mg/L (Daphnia magna) 48 h
sodium azide	EC50 0.35 mg/L (Pseudokirchneriella subcapitata) 96 h	LC50 0.8 mg/L (Oncorhynchus mykiss) 96 h LC50 0.7 mg/L (Lepomis	LC100 1 mg/L (Orconectes rusticus) 96 h

Legend:

		macrochirus) 96 h LC50 5.46 mg/L (Pimephales promelas) 96 h	

B. Persistence and degradability

Kit Component	**7006: Buffer A (4X)**
Persistence and degradability	Not readily biodegradable
Kit Component	**7007: Buffer B (4X)**
Persistence and degradability	Product is biodegradable
Kit Component	**7008: ChIP Buffer (10X)**
Persistence and degradability	Not readily biodegradable
Kit Component	**10007: DNA Binding Buffer**
Persistence and degradability	Readily biodegradable

C. Bioaccumulative potential

Kit Component	**7007: Buffer B (4X)**
Bioaccumulation	Not likely to bioaccumulate
Kit Component	**10007: DNA Binding Buffer**
Bioaccumulation	Not likely to bioaccumulate
Kit Component	**7012: Protease Inhibitor Cocktail (200X)**
Bioaccumulation	Not likely to bioaccumulate

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

D. Mobility in soil

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

E. Other adverse effects No information available.

13. Disposal considerations

A. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

B. Disposal considerations

Legend:

Contaminated packaging Do not reuse empty containers.

14. Transport information

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

A. UN number UN3316
B. UN proper shipping name Chemical Kit
C. Transport hazard class(es) 9
D. Packing group II
E. Marine Pollutant Not regulated
F. Special precautions for user No information available

15. Regulatory information

A. Industrial Safety and Health Law Not applicable

Harmful substances subject to control Not applicable

Chemical name	ISHA - Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying	Korea. Harmful Substances Requiring Permission	ISHA - Substances to be controlled - Organic Substances	ISHA - Substances to be controlled - Metals	ISHA - Substances to be controlled - Acids and bases	Gas-phase substances
propan-2-ol	not applicable	not applicable	>=1%	not applicable	not applicable	Not applicable

Harmful agents subject to work environment monitoring Not applicable

Chemical name	Organic compounds	Metals	Acids and alkalis	Gas-phase substances	Dusts
propan-2-ol	>=1%	Not applicable	Not applicable	Not applicable	Not applicable

Harmful agents subject to workers requiring health examination Not applicable

Chemical name	Organic compounds	Metals	Acids and alkalis	Gas-phase substances	Dusts
propan-2-ol	>=1%	Not applicable	Not applicable	Not applicable	Listed

B. Chemicals Control Act not applicable

Chemical name	TCCLT	TCCLP	TCCLR
sodium azide	1997-1-0165, 1 % *	not applicable	not applicable

Chemical name	Existing substances subject to registration	Existing substances not likely to be subject to registration	Existing substances known to be of very low risk
glycerol	Not applicable	4-d	Not applicable
sodium azide	439	Not applicable	Not applicable

Chemicals Control Act (CCA) - Accident Precaution Chemicals Not applicable

C. Safety Control of Dangerous Substances Act No information available

D. Wastes Management Dispose of waste in accordance with environmental legislation.

E. Other Regulations No information available

Chemical name	Toxic Release Inventory Chemicals - Group 1	Toxic Release Inventory Chemicals - Group 2
propan-2-ol		>=1.0 % w/w
sodium azide		>=1.0 % w/w

Legend:

International inventories

TSCA 8(b)	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AICS	Contact supplier for inventory compliance status.

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

16. Other information

A. Information source and references

Prepared By No information available.

B. Issuing Date: 2024-10-15

C. Revision number and date

Version: 1

D. Other information .

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

IMDG International Maritime Dangerous Goods (IMDG)

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA:	Time weighted average	STEL:	Short term exposure limit
Ceiling:	Maximum limit value:	*	Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification

Legend:

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

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End of Safety Data Sheet

Transport hazard class(es)	9

Legend: