

Material Safety Data Sheet (MSDS) for #9002 and #9003 SimpleChIP™ Enzymatic Chromatin IP Kit

New 03/08



I. IDENTIFICATION:

Product name: SimpleChIP™ Enzymatic Chromatin IP Kit

Product Catalog Number: #9002 and #9003

CAS number: None

Manufacturer Supplier: Cell Signaling Technology®

3 Trask Lane

Danvers, MA 01923 USA

1-978-867-2300 TEL

1-978-867-2400 FAX

1-978-578-6737 Emergency Phone

II. COMPOSITION/INFORMATION ON INGREDIENTS:

Substance Name: SimpleChIP™ Enzymatic Chromatin IP Kit

CAS#: None

Please see the individual material safety data sheets which can be found on the CST website www.cellsignal.com/support/msds.html for hazard information specific to kit components.

- Buffer A (4X) MSDS
- ChIP Buffer (10X) MSDS
- ChIP Elution Buffer (2X) MSDS
- 0.5 M EDTA Solution MSDS
- 1 M DTT MSDS
- DNA Binding Buffer MSDS
- Protease Inhibitor Cocktail MSDS
- RNase A solution MSDS
- Micrococcal Nuclease Solution MSDS
- Proteinase K Solution MSDS
- Histone H3 Antibody (covered by "Antibodies" MSDS)
- Normal Rabbit IgG (covered by "Antibodies" MSDS)

III. HAZARD IDENTIFICATION:

Harmful. Flammable. Irritant. May cause irritation to eyes, skin, mucous membranes. Harmful if swallowed.

HMIS Rating: Health: 3 Flammability: 3 Reactivity: 0

VII. HANDLING AND STORAGE:

Storage: Store kit in tightly closed container at 4°C.

XIV. TRANSPORT INFORMATION:

D.O.T.

Proper Shipping Name: ISOPROPANOL (ISOPROPYL ALCOHOL), Solution

UN Number: UN1219

Hazard Class: 3 Flammable liquids

Packing Group: Packing Group II

Hazard Label: 3

IATA

Proper Shipping Name: ISOPROPANOL (ISOPROPYL ALCOHOL), Solution

UN Number: UN1219

ICAO/IATA Class: 3 Flammable liquids

Packing Group: II

Hazard Label: 3

XV. REGULATORY INFORMATION:

US Regulations/Classifications:

Harmful. Flammable.

Harmful if swallowed. Irritating to eyes and skin.

In case of contact with eyes, wash thoroughly and seek medical attention.

SARA 313 listed: 67-63-0 propan-2-ol

IARC (international Agency for Research on Cancer): 67-63-0 propan-2-ol

XVI. OTHER INFORMATION:

This product is not intended for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. The above information is believed to be accurate but is not necessarily all-inclusive and shall be used only as a guide. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.

Material Safety Data Sheet (MSDS) for Buffer A (4X)

New 03/08

I. IDENTIFICATION:

Product name: Buffer A (4X)
Product Catalog Number: Component of kit #9002 and #9003
CAS number: None
Manufacturer Supplier: Cell Signaling Technology®
3 Trask Lane
Danvers, MA 01923 USA
1-978-867-2300 TEL
1-978-867-2400 FAX
1-978-578-6737 Emergency Phone

II. COMPOSITION/INFORMATION ON INGREDIENTS:

According to 29 CFR 1910.1200(d), hazardous ingredients at less than <1% and carcinogens at less than < 0.1% therefore considered non-hazardous. Any hazardous or carcinogenic ingredients meeting these criteria are listed below.

Ingredient	CAS#	Percent
Nonidet-40	9036-19-5	4%
Potassium chloride	7447-40-7	1.8%
Dithiothreitol	3483-12-3	<1%
Magnesium chloride	7786-30-3	<1%

III. HAZARD IDENTIFICATION:

Avoid contact, ingestion, and inhalation. May be harmful if contact with skin or swallowed. Irritating to eyes, respiratory system, skin.
To the best of our knowledge the chemical, physical, and toxicological properties of this buffer have not been investigated.

Target organ: heart.

IV. FIRST AID MEASURES:

Inhalation: Remove to fresh air. If breathing is difficult, get medical attention.
Ingestion: If person is conscious, wash out mouth with water. Get medical attention.
Skin Exposure: Wash skin with soap and water. If irritation develops or persists, get medical attention.
Eye Exposure: Immediately flush eyes with water for at least 15 minutes. Get medical attention.

V. FIRE FIGHTING MEASURES:

Flash Point: Not applicable.
Autoignition Temperature: Not applicable.
Explosion: Not applicable.
Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide.
Firefighting: Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes.

VI. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective equipment as indicated in Section VIII. Absorb liquid with an absorbent material. Transfer contaminated absorbent to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

VII. HANDLING AND STORAGE:

Store at 4°C in tightly closed container.
Avoid prolonged or repeated exposure. Avoid contact with eyes, respiratory system, skin, and clothing. Wash thoroughly after handling.

VIII. EXPOSURE CONTROLS/PERSONAL

Ventilation System: A system of local and general exhaust is recommended.
Skin Protection: Wear compatible chemical resistant gloves and protective clothing.
Eye protection: Wear chemical safety goggles. Maintain emergency eyewash and shower in work area.

IX. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Appearance: Liquid
Odor: Odorless
pH : Data not available
Boiling Point: Data not available
Melting Point: Data not available
Freezing Point: Data not available
Volatile Organic Compounds (VOC): Data not available
Autoignition temp. Data not available
Solubility: Soluble in water

X. STABILITY AND REACTIVITY:

Stability: Stable.
Conditions to avoid: Data not available.
Hazardous Decomposition: Data not available.
Hazardous polymerization: Will not occur.

XI. TOXICOLOGICAL INFORMATION:

Skin Exposure: May cause skin irritation. May be harmful if absorbed through skin.
Eye Exposure: May cause eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membrane and upper respiratory tract.
Ingestion: May be harmful if swallowed.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

XII. ECOLOGICAL INFORMATION:

Data not available.

XIII. DISPOSAL CONSIDERATIONS:

Dispose of in accordance with federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

XIV. TRANSPORT INFORMATION:

D.O.T.
Proper Shipping Name: None.
This substance is considered non-hazardous for transport.

IATA

Proper Shipping Name: None.
This substance is considered non-hazardous for air transport.

XV. REGULATORY INFORMATION:

US Regulations/Classifications: May be harmful if in contact with skin or swallowed. Irritating to eyes, respiratory system, skin.
In case of contact with eyes, wash thoroughly and seek medical attention.

SARA Listed: No.
Canada (WHMIS): DSL No, NDSL No.

XVI. OTHER INFORMATION:

This product is not intended for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. The above information is believed to be accurate but is not necessarily all-inclusive and shall be used only as a guide. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.

Material Safety Data Sheet (MSDS) for 10X ChIP Buffer

New 03/08

I. IDENTIFICATION:

Product name: 10X ChIP Buffer
Product Catalog Number: Component of kit #9002 and #9003
CAS number: None
Manufacturer Supplier: Cell Signaling Technology®
3 Trask Lane
Danvers, MA 01923 USA
1-978-867-2300 TEL
1-978-867-2400 FAX
1-978-578-6737 Emergency Phone

II. COMPOSITION/INFORMATION ON INGREDIENTS:

According to 29 CFR 1910.1200(d), hazardous ingredients at less than <1% and carcinogens at less than < 0.1% therefore considered non-hazardous. Any hazardous or carcinogenic ingredients meeting these criteria are listed below.

Ingredient	CAS#	Percent
Triton X-100	9002-93-1	10%
Ethylenediaminetetraacetic acid (EDTA), disodium, dihydrate	6381-92-6	1.9%
Sodium dodecyl sulfate (SDS)	151-21-3	1%

III. HAZARD IDENTIFICATION:

May cause eye irritation or severe eye burns.
Harmful if inhaled. May cause respiratory tract irritation.
Harmful if swallowed.
May be harmful if absorbed through skin. May cause skin irritation.

To the best of our knowledge the chemical, physical, and toxicological properties of this buffer have not been investigated.

IV. FIRST AID MEASURES:

Inhalation: Remove to fresh air. If breathing is difficult, get medical attention.
Ingestion: If person is conscious, wash out mouth with water. Get medical attention.
Skin Exposure: Wash skin with soap and water. If irritation develops or persists, get medical attention.
Eye Exposure: Immediately flush eyes with water for at least 15 minutes. Get medical attention.

V. FIRE FIGHTING MEASURES:

Flash Point: Not applicable.
Autoignition Temperature: Not applicable.
Explosion: Not applicable.
Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide.
Firefighting: Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes.

VI. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective equipment as indicated in Section VIII. Absorb liquid with an absorbent material. Transfer contaminated absorbent to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

VII. HANDLING AND STORAGE:

Store at 4°C in tightly closed container.
Avoid prolonged or repeated exposure. Avoid contact with eyes, respiratory system, skin, and clothing. Wash thoroughly after handling.

VIII. EXPOSURE CONTROLS/PERSONAL

Ventilation System: A system of local and general exhaust is recommended.
Skin Protection: Wear compatible chemical resistant gloves and protective clothing.
Eye protection: Wear chemical safety goggles. Maintain emergency eyewash and shower in work area.

IX. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Appearance: Liquid
Odor: Odorless
pH: Data not available
Boiling Point: Data not available
Melting Point: Data not available
Freezing Point: Data not available
Volatile Organic Compounds (VOC): Data not available
Autoignition temp.: Data not available
Solubility: Soluble in water

X. STABILITY AND REACTIVITY:

Stability: Stable.
Conditions to avoid: Strong oxidizing agents, strong acids, strong bases.
Hazardous Decomposition: Carbon monoxide, carbon dioxide, sulfur oxides, sodium oxides.
Hazardous polymerization: Will not occur.

XI. TOXICOLOGICAL INFORMATION:

Skin Exposure: May cause skin irritation. May be harmful if absorbed through skin.
Eye Exposure: May cause eye irritation or severe eye burns.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membrane and upper respiratory tract.
Ingestion: May be harmful if swallowed.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

XII. ECOLOGICAL INFORMATION:

Data not available.

XIII. DISPOSAL CONSIDERATIONS:

Dispose of in accordance with federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Ethylenediaminetetraacetic acid is designated as a hazardous substance under section 311(b)(2)(A) of the Federal Water Pollution Control Act and further regulated by the Clean Water Act Amendments of 1977 and 1978. These regulations apply to discharges of this substance. This designation includes any isomers and hydrates, as well as any solutions and mixtures containing this substance.

XIV. TRANSPORT INFORMATION:

D.O.T.
Proper Shipping Name: None.
This substance is considered non-hazardous for transport.

IATA
Proper Shipping Name: None.
This substance is considered non-hazardous for air transport.

XV. REGULATORY INFORMATION:

US Regulations/Classifications: May be harmful if contact with skin or swallowed. Irritating to eyes, respiratory system, skin.
In case of contact with eyes, wash thoroughly and seek medical attention.

SARA Listed: No.
Canada (WHMIS): DSL No, NDSL No.

XVI. OTHER INFORMATION:

This product is not intended for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. The above information is believed to be accurate but is not necessarily all-inclusive and shall be used only as a guide. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.

Material Safety Data Sheet (MSDS) for 2X ChIP Elution Buffer

New 03/08

I. IDENTIFICATION:

Product name: 2X ChIP Elution Buffer
Product Catalog Number: Component of kit #9002 and #9003
CAS number: None
Manufacturer Supplier: Cell Signaling Technology®
3 Trask Lane
Danvers, MA 01923 USA
1-978-867-2300 TEL
1-978-867-2400 FAX
1-978-578-6737 Emergency Phone

II. COMPOSITION/INFORMATION ON INGREDIENTS:

According to 29 CFR 1910.1200(d), hazardous ingredients at less than <1% and carcinogens at less than < 0.1% therefore considered non-hazardous. Any hazardous or carcinogenic ingredients meeting these criteria are listed below.

Ingredient	CAS#	Percent
Ethylenediaminetetraacetic acid (EDTA), disodium, dihydrate	6381-92-6	<1%
Sodium dodecyl sulfate (SDS)	151-21-3	2%

III. HAZARD IDENTIFICATION: ON HAZARDOUS INGREDIENT SODIUM DODECYL SULFATE

Toxic. Harmful if contact with skin or swallowed. Irritating to eyes, respiratory system, skin.

Target organs: Lungs

HMIS Rating:	Health: 2	Flammability: 0	Reactivity: 0
NFPA Rating:	Health: 2	Flammability: 0	Reactivity: 0

IV. FIRST AID MEASURES:

Inhalation: Remove to fresh air. If breathing is difficult, get medical attention.

Ingestion: If person is conscious, wash out mouth with water. Get medical attention.

Skin Exposure: Wash skin with soap and water. If irritation develops or persists, get medical attention.

Eye Exposure: Immediately flush eyes with water for at least 15 minutes. Get medical attention.

V. FIRE FIGHTING MEASURES:

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion: Not applicable.

Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide.

Firefighting: Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes.

VI. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective equipment as indicated in Section VIII. Absorb liquid with an absorbent material. Transfer contaminated absorbent to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

VII. HANDLING AND STORAGE:

Store at 4°C in tightly closed container.

Avoid prolonged or repeated exposure. Avoid contact with eyes, respiratory system, skin, and clothing. Wash thoroughly after handling.

VIII. EXPOSURE CONTROLS/PERSONAL

Ventilation System: A system of local (fume hood) and general exhaust is recommended.

Skin Protection: Wear compatible chemical resistant gloves and protective clothing.

Eye protection: Wear chemical safety goggles. Maintain emergency eyewash and shower in work area.

IX. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Appearance:	Colorless liquid
Odor:	Odorless
pH :	Data not available
Boiling Point:	Data not available
Melting Point:	Data not available
Freezing Point:	Data not available
Volatile Organic Compounds (VOC):	Data not available
Autoignition temp.	Data not available
Solubility:	Soluble in water

X. STABILITY AND REACTIVITY:

Stability: Stable.

Conditions to avoid: Strong oxidizing agents.

Hazardous Decomposition: Carbon monoxide, carbon dioxide, sulfur oxides, sodium oxides.

Hazardous polymerization: Will not occur.

XI. TOXICOLOGICAL INFORMATION:

Routes of Exposure:

Skin Exposure: May cause skin irritation. May be harmful if absorbed through skin.

Eye Exposure: May cause eye irritation.

Inhalation: May be harmful if inhaled. Material may be irritating to mucous membrane and upper respiratory tract.

Ingestion: May be harmful if swallowed.

Target organ: Lungs.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

XII. ECOLOGICAL INFORMATION:

Data not available.

XIII. DISPOSAL CONSIDERATIONS:

Dispose of in accordance with federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

XIV. TRANSPORT INFORMATION:

D.O.T.

Proper Shipping Name: None.

This substance is considered non-hazardous for transport.

IATA

Proper Shipping Name: None.

This substance is considered non-hazardous for air transport.

XV. REGULATORY INFORMATION:

US Regulations/Classifications: Toxic. Harmful if contact with skin or swallowed. Irritating to eyes, respiratory system, skin. In case of contact with eyes, wash thoroughly and seek medical attention.

SARA Listed: No.

Canada (WHMIS): DSL: No, NDSL: No.

XVI. OTHER INFORMATION:

This product is not intended for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. The above information is believed to be accurate but is not necessarily all-inclusive and shall be used only as a guide. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.

Material Safety Data Sheet (MSDS) for 0.5 M EDTA

New 03/08

I. IDENTIFICATION:

Product name: 0.5 M EDTA Solution
Product Catalog Number: Component of kit #9002 and #9003
CAS number: None
Manufacturer Supplier: Cell Signaling Technology®
3 Trask Lane
Danvers, MA 01923 USA
1-978-867-2300 TEL
1-978-867-2400 FAX
1-978-578-6737 Emergency Phone

II. COMPOSITION/INFORMATION ON INGREDIENTS:

According to 29 CFR 1910.1200(d), hazardous ingredients at less than <1% and carcinogens at less than < 0.1% therefore considered non-hazardous. Any hazardous or carcinogenic ingredients meeting these criteria are listed below.

Ingredient	CAS#	Percent
Ethylenediaminetetraacetic acid (EDTA), disodium, dihydrate	6381-92-6	18.6%

III. HAZARD IDENTIFICATION:

Irritant. Irritating to eyes, respiratory system, skin.

Target organs: Central nervous system.

HMIS Rating:	Health: 2	Flammability: 0	Reactivity: 0
NFPA Rating:	Health: 2	Flammability: 0	Reactivity: 0

IV. FIRST AID MEASURES:

Inhalation: Remove to fresh air. If breathing is difficult, get medical attention.

Ingestion: If person is conscious, wash out mouth with water. Get medical attention.

Skin Exposure: Wash skin with soap and water. If irritation develops or persists, get medical attention.

Eye Exposure: Immediately flush eyes with water for at least 15 minutes. Get medical attention.

V. FIRE FIGHTING MEASURES:

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion: Not applicable.

Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide.

Firefighting: Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes.

VI. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective equipment as indicated in Section VIII. Absorb liquid with an absorbent material. Transfer contaminated absorbent to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

VII. HANDLING AND STORAGE:

Store at 4°C temperature in tightly closed container.

Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

VIII. EXPOSURE CONTROLS/PERSONAL

Ventilation System: A system of local and general exhaust is recommended.

Skin Protection: Wear compatible chemical resistant gloves and protective clothing.

Eye protection: Wear chemical safety goggles. Maintain emergency eyewash and shower in work area.

IX. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Appearance:	Colorless liquid
Odor:	Odorless
pH :	Data not available
Boiling Point:	Data not available
Melting Point:	Data not available
Freezing Point:	Data not available
Volatile Organic Compounds (VOC):	Data not available
Autoignition temp.	Data not available
Solubility:	Soluble in water

X. STABILITY AND REACTIVITY:

Stability: Stable.

Conditions to avoid: Strong oxidizing agents.

Hazardous Decomposition: Carbon monoxide, carbon dioxide, nitrogen oxides.

Hazardous polymerization: Will not occur.

XI. TOXICOLOGICAL INFORMATION:

Skin Exposure: May cause skin irritation. May be harmful if absorbed through skin.

Eye Exposure: May cause eye irritation.

Inhalation: May be harmful if inhaled. Material may be irritating to mucous membrane and upper respiratory tract.

Ingestion: May be harmful if swallowed.

Signs and Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

XII. ECOLOGICAL INFORMATION:

Data not available.

XIII. DISPOSAL CONSIDERATIONS:

Dispose of in accordance with federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Ethylenediaminetetraacetic acid is designated as a hazardous substance under section 311(b)(2)(A) of the Federal Water Pollution Control Act and further regulated by the Clean Water Act Amendments of 1977 and 1978. These regulations apply to discharges of this substance. This designation includes any isomers and hydrates, as well as any solutions and mixtures containing this substance.

XIV. TRANSPORT INFORMATION:

D.O.T.

Proper Shipping Name: None.

This substance is considered non-hazardous for transport.

IATA

Proper Shipping Name: None.

This substance is considered non-hazardous for air transport.

XV. REGULATORY INFORMATION:

EU Regulations/Classifications: Data not available.

US Regulations/Classifications:

Irritant. Irritating to eyes, respiratory system, skin.

In case of contact with eyes, wash thoroughly and seek medical attention.

SARA Listed: No.

Canada (WHMIS): DSL: No, NDSL: No.

XVI. OTHER INFORMATION:

This product is not intended for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. The above information is believed to be accurate but is not necessarily all-inclusive and shall be used only as a guide. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.

Material Safety Data Sheet (MSDS) for 1 M DTT

New 03/08

I. IDENTIFICATION:

Product name: 1 M DTT
Product Catalog Number: Component of kit #9002 and #9003
CAS number: None
Manufacturer Supplier: Cell Signaling Technology®
3 Trask Lane
Danvers, MA 01923 USA
1-978-867-2300 TEL
1-978-867-2400 FAX
1-978-578-6737 Emergency Phone

II. COMPOSITION/INFORMATION ON INGREDIENTS:

According to 29 CFR 1910.1200(d), hazardous ingredients at less than <1% and carcinogens at less than < 0.1% therefore considered non-hazardous. Any hazardous or carcinogenic ingredients meeting these criteria are listed below.

Ingredient	CAS#	Percent
Dithiothreitol	3483-12-3	15.4%

III. HAZARD IDENTIFICATION:

Irritant. Irritating to eyes, respiratory system, skin.

Target organs: Central nervous system.

HMIS Rating:	Health: 2	Flammability: 0	Reactivity: 0
NFPA Rating:	Health: 2	Flammability: 0	Reactivity: 0

IV. FIRST AID MEASURES:

Inhalation: Remove to fresh air. If breathing is difficult, get medical attention.

Ingestion: If person is conscious, wash out mouth with water. Get medical attention.

Skin Exposure: Wash skin with soap and water. If irritation develops or persists, get medical attention.

Eye Exposure: Immediately flush eyes with water for at least 15 minutes. Get medical attention.

V. FIRE FIGHTING MEASURES:

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion: Not applicable.

Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide.

Firefighting: Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes.

VI. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective equipment as indicated in Section VIII. Absorb liquid with an absorbent material. Transfer contaminated absorbent to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

VII. HANDLING AND STORAGE:

Store at -20°C in tightly closed container.

Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

VIII. EXPOSURE CONTROLS/PERSONAL

Ventilation System: A system of local (fume hood) and general exhaust is recommended.

Skin Protection: Wear compatible chemical resistant gloves and protective clothing.

Eye protection: Wear chemical safety goggles. Maintain emergency eyewash and shower in work area.

IX. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Appearance:	Liquid
Odor:	Unpleasant odor
pH:	Data not available
Boiling Point:	Data not available
Melting Point:	Data not available
Freezing Point:	Data not available
Volatile Organic Compounds (VOC):	Data not available
Autoignition temp.	Data not available
Solubility:	Soluble in water

X. STABILITY AND REACTIVITY:

Stability: Stable.

Conditions to avoid: Bases, oxidizing agents, reducing agents, alkali metals.

Hazardous Decomposition: Carbon monoxide, carbon dioxide, sulfur oxides, hydrogen sulfide gas.

Hazardous polymerization: Will not occur.

XI. TOXICOLOGICAL INFORMATION:

Skin Exposure: Causes skin irritation. May be harmful if absorbed through skin.

Eye Exposure: Causes eye irritation.

Inhalation: May be harmful if inhaled. Material may be irritating to mucous membrane and upper respiratory tract.

Ingestion: May be harmful if swallowed.

Signs and Symptoms of Exposure: Exposure can cause CNS depression.

XII. ECOLOGICAL INFORMATION:

Data not available.

XIII. DISPOSAL CONSIDERATIONS:

Dispose of in accordance with federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

XIV. TRANSPORT INFORMATION:

D.O.T.

Proper Shipping Name: None.

This substance is considered non-hazardous for transport.

IATA

Proper Shipping Name: None.

This substance is considered non-hazardous for air transport.

XV. REGULATORY INFORMATION:

EU Regulations/Classifications: Harmful. Harmful if swallowed. Irritating to eyes, respiratory system, skin.

US Regulations/Classifications: Toxic. Harmful if swallowed. Irritating to eyes, respiratory system, skin. In case of contact with eyes, wash thoroughly and seek medical attention.

SARA Listed: No.

Canada (WHMIS): DSL: No, NDSL: No.

XVI. OTHER INFORMATION:

This product is not intended for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. The above information is believed to be accurate but is not necessarily all-inclusive and shall be used only as a guide. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.

Material Safety Data Sheet (MSDS) for DNA Binding Buffer

New 03/08

I. IDENTIFICATION:

Product name: DNA Binding Buffer
Product Catalog Number: Component of kit #9002 and #9003
CAS number: None
Manufacturer Supplier: Cell Signaling Technology®
3 Trask Lane
Danvers, MA 01923 USA
1-978-867-2300 TEL
1-978-867-2400 FAX
1-978-578-6737 Emergency Phone

II. COMPOSITION/INFORMATION ON INGREDIENTS:

According to 29 CFR 1910.1200(d), hazardous ingredients at less than <1% and carcinogens at less than < 0.1% therefore considered non-hazardous. Any hazardous or carcinogenic ingredients meeting these criteria are listed below.

Ingredient	CAS#	Percent
Guanidinium chloride	50-01-1	25-50%
Propan-2-ol	67-63-0	25-50%

III. HAZARD IDENTIFICATION:

Harmful. Flammable. Harmful if swallowed. Irritating to eyes, skin.

HMIS Rating:	Health: 3	Flammability: 3	Reactivity: 0
NFPA Rating:	Health: 3	Flammability: 3	Reactivity: 0

IV. FIRST AID MEASURES:

Inhalation: Remove to fresh air. If breathing is difficult, get medical attention.
Ingestion: If person is conscious, wash out mouth with water. Get medical attention.
Skin Exposure: Wash skin with soap and water. If irritation develops or persists, get medical attention.
Eye Exposure: Immediately flush eyes with water for at least 15 minutes. Get medical attention.

V. FIRE FIGHTING MEASURES:

Flash Point: 21-55°C (70-131°F)
Autoignition Temperature: Data not available.
Explosion: Data not available.
Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide.
Firefighting: Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes.

VI. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective equipment as indicated in Section VIII. Absorb liquid with an absorbent material. Transfer contaminated absorbent to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

VII. HANDLING AND STORAGE:

Store at room temperature in tightly closed container. Store away from ignition sources.

VIII. EXPOSURE CONTROLS/PERSONAL

Ventilation System: A system of local and general exhaust is recommended.
Skin Protection: Wear compatible chemical resistant gloves and protective clothing.
Eye protection: Wear chemical safety goggles. Maintain emergency eyewash and shower in work area.

Components with limit values that require monitoring at the workplace:
CAS# 67-63-0: propan-2-ol:

PEL:	980 mg/m ³ , 400 ppm
REL:	Short term value 1225 mg/m ³ , 500 ppm Long term value: 980 mg/m ³ , 400 ppm
TLV:	Short term value: 984 mg/m ³ , 400 ppm Long term value: 492 mg/m ³ , 200 ppm

IX. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Appearance:	Liquid
Odor:	Characteristic
pH at 20°C (68°F):	7.0
Boiling Point:	Data not available
Melting Point:	Data not available
Freezing Point:	Data not available
Volatile Organic Compounds (VOC):	Data not available
Ignition temp.	425°C (797°F)
Flash Point:	21-55°C (70-131°F)
Autoignition:	Product is not self-igniting
Solubility:	Soluble in water

X. STABILITY AND REACTIVITY:

Stability: Stable.
Conditions to avoid: Acids, alkalis, oxidizing reagents.
Hazardous Decomposition: Data not available.
Hazardous polymerization: Data not available.

XI. TOXICOLOGICAL INFORMATION:

Skin Exposure: Causes skin irritation. May be harmful if absorbed through skin.
Eye Exposure: Causes eye irritation.
Inhalation: Harmful if inhaled. Causes irritation to mucous membrane and upper respiratory tract.
Ingestion: Harmful if swallowed.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

XII. ECOLOGICAL INFORMATION:

Data not available.

XIII. DISPOSAL CONSIDERATIONS:

Dispose of in accordance with federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

XIV. TRANSPORT INFORMATION:

D.O.T.

Proper Shipping Name: ISOPROPANOL (ISOPROPYL ALCOHOL), Solution
UN Number: UN1219
Hazard Class: 3 Flammable Liquids
Packing Group: Packing Group II
Hazard Label: 3

IATA

Proper Shipping Name: ISOPROPANOL (ISOPROPYL ALCOHOL), Solution
UN Number: UN1219
ICAO/IATA Class: 3 Flammable Liquids
Packing Group: II
Hazard Label: 3

XV. REGULATORY INFORMATION:

US Regulations/Classifications:

Harmful. Flammable.
Harmful if swallowed. Irritating to eyes and skin.
In case of contact with eyes, wash thoroughly and seek medical attention.

SARA 313 listed: 67-63-0 propan-2-ol

IARC (international Agency for Research on Cancer): 67-63-0 propan-2-ol

XVI. OTHER INFORMATION:

This product is not intended for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. The above information is believed to be accurate but is not necessarily all-inclusive and shall be used only as a guide. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.

Material Safety Data Sheet (MSDS) for Protease Inhibitor Cocktail (200X)

New 03/08



I. IDENTIFICATION:

Product name: Protease Inhibitor Cocktail (200X)
Product Catalog Number: Component of kit #9002 and #9003
CAS number: None
Manufacturer Supplier: Cell Signaling Technology®
3 Trask Lane
Danvers, MA 01923 USA
1-978-867-2300 TEL
1-978-867-2400 FAX
1-978-578-6737 Emergency Phone

II. COMPOSITION/INFORMATION ON INGREDIENTS:

Ingredient	CAS#	Percent
Dimethyl sulfoxide (DMSO)	67-68-5	>96%
4-(2-aminoethyl)benzenesulfonyl fluoride hydrochloride	30827-99-7	2.49%
Aprotinin	9087-70-1	0.05%
Bestatin hydrochloride	65391-42-6	0.12%
N-(trans-epoxysuccinyl)-L-leucine 4-guanidinobutylamide	66701-25-5	0.09%
Leupeptin hemisulfate	103476-89-7	0.1%
Pepstatin A	26305-03-3	0.1%

III. HAZARD IDENTIFICATION:

Combustible.

Target organs: Eyes. Skin. Readily absorbed through skin.

HMIS Rating:	Health: 0	Flammability: 2	Reactivity: 0
NFPA Rating:	Health: 0	Flammability: 2	Reactivity: 0

IV. FIRST AID MEASURES:

Inhalation: Remove to fresh air. If breathing is difficult, get medical attention.

Ingestion: If person is conscious, wash out mouth with water. Get medical attention.

Skin Exposure: Wash skin with soap and water. If irritation develops or persists, get medical attention.

Eye Exposure: Immediately flush eyes with water for at least 15 minutes. Get medical attention.

V. FIRE FIGHTING MEASURES:

Flash Point: 188.6°F, 87°C Method: closed cup.

Autoignition Temperature: Not applicable.

Explosion: Not applicable.

Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide.

Firefighting: Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes.

Note: Combustible liquid. Emits toxic fumes under fire conditions.

VI. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective equipment as indicated in Section VIII. Absorb liquid with an absorbent material. Transfer contaminated absorbent to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

VII. HANDLING AND STORAGE:

Store at -20°C in tightly closed container under inert gas. Hygroscopic. Avoid prolonged or repeated exposure. Avoid contact with eyes, respiratory system, skin, and clothing. Wash thoroughly after handling. DMSO is readily absorbed through the skin and may carry materials with known or unknown toxicological properties into the body.

VIII. EXPOSURE CONTROLS/PERSONAL

Ventilation System: A system of local and general exhaust is recommended.

Skin Protection: Wear compatible chemical resistant gloves and protective clothing.

Eye protection: Wear chemical safety goggles. Maintain emergency eyewash and shower in work area.

IX. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Appearance:	Liquid
Odor:	Data not available
pH:	Data not available
Boiling Point:	Data not available
Melting Point:	Data not available
Freezing Point:	Data not available
Volatile Organic Compounds (VOC):	Data not available
Autoignition temp.	Data not available
Solubility:	Data not available

X. STABILITY AND REACTIVITY:

Stability: Stable.

Conditions to avoid: Exposure to moisture may affect product quality.

Hazardous Decomposition: Acid chlorides, phosphorus halides, strong acids, strong oxidizing agents, strong reducing agents.

Hazardous polymerization: Will not occur.

XI. TOXICOLOGICAL INFORMATION:

Skin Exposure: May cause skin irritation. May be harmful if absorbed through skin.

Eye Exposure: May cause eye irritation.

Inhalation: May be harmful if inhaled. Material may be irritating to mucous membrane and upper respiratory tract.

Ingestion: May be harmful if swallowed.

Target organs: Eyes, skin.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

XII. ECOLOGICAL INFORMATION:

Data not available.

XIII. DISPOSAL CONSIDERATIONS:

Dispose of in accordance with federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

XIV. TRANSPORT INFORMATION:

D.O.T.

Proper Shipping Name: Combustible liquid, n.o.s
UN# NA1993.

Class: Combustible Liquid.

Packing Group: Packing Group III.

Hazard Label: None.

PIH: Not PIH.

IATA

Proper Shipping Name: None.

This substance is considered non-hazardous for air transport.

XV. REGULATORY INFORMATION:

US Regulations/Classifications: Combustible.

Target organs: Eyes. Skin. Readily absorbed through skin.

SARA Listed: No.

Canada (WHMIS): DSL: No, NDSL: No.

XVI. OTHER INFORMATION:

This product is not intended for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. The above information is believed to be accurate but is not necessarily all-inclusive and shall be used only as a guide. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.

Material Safety Data Sheet (MSDS) for RNase A Solution

New 03/08

I. IDENTIFICATION:

Product name: RNase A solution
Product Catalog Number: Component of kit #9002 and #9003
CAS number: None
Manufacturer Supplier: Cell Signaling Technology®
3 Trask Lane
Danvers, MA 01923 USA
1-978-867-2300 TEL
1-978-867-2400 FAX
1-978-578-6737 Emergency Phone

II. COMPOSITION/INFORMATION ON INGREDIENTS:

According to 29 CFR 1910.1200(d), hazardous ingredients at less than <1% and carcinogens at less than <0.1% therefore considered non-hazardous. Any hazardous or carcinogenic ingredients meeting these criteria are listed below.

Ingredient	CAS#	Percent
Glycerol	56-81-5	50%

III. HAZARD IDENTIFICATION:

Emergency Overview of Hazardous ingredient: Glycerol (CAS# 56-81-5)

Caution: Avoid contact and inhalation.
Irritant. Irritating to eyes, respiratory system, skin.

NFPA Rating: Health: 1 Flammability: 0 Reactivity: 0

Target organ: Kidneys.

IV. FIRST AID MEASURES:

Inhalation: Remove to fresh air. If breathing is difficult, get medical attention.
Ingestion: If swallowed, rinse mouth with water provided person is conscious. Get medical attention.
Skin Exposure: In case of contact, wash skin with soap and water.
Eye Exposure: In case of contact with eyes, immediately flush eyes with water for at least 15 minutes. Get medical attention.

V. FIRE FIGHTING MEASURES:

Flash Point: Data not available.
Autoignition Temperature: Data not available.
Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide.
Firefighting: Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes.

VI. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective equipment as indicated in Section VIII. Absorb liquid with an absorbent material. Transfer contaminated absorbent to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

VII. HANDLING AND STORAGE:

Store at -20°C in tightly closed container. Avoid inhalation and contact with eyes and skin. Avoid prolonged or repeated exposure.

VIII. EXPOSURE CONTROLS/PERSONAL

Ventilation System: A system of local and general exhaust is recommended.
Skin Protection: Wear compatible chemical resistant gloves and protective clothing.
Eye protection: Wear chemical safety goggles. Maintain emergency eyewash and shower in work area.

IX. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Physical State: Liquid
Appearance: Colorless
Odor: Odorless
pH : 7.5
Boiling Point: Data not available
Melting Point: Data not available
Volatile Organic Compounds (VOC): Data not available
Solubility in water: Readily miscible in water

X. STABILITY AND REACTIVITY:

Stability: Stable.
Conditions to avoid: Strong oxidizing agents.
Hazardous Decomposition: May form carbon dioxide and carbon monoxide.

XI. TOXICOLOGICAL INFORMATION:

May cause skin irritation.
May be toxic if absorbed through skin or ingested.
May cause eye irritation.

Target organs: Kidneys.

Prolonged exposure may cause nausea, headache, and vomiting.

XII. ECOLOGICAL INFORMATION:

Data not available.

XIII. DISPOSAL CONSIDERATIONS:

Dispose of in accordance with federal, state and local environmental regulations.

XIV. TRANSPORT INFORMATION:

D.O.T.

Proper Shipping Name: None.

This substance is considered non-hazardous for transport.

IATA

Proper Shipping Name: None.

This substance is considered non-hazardous for air transport.

XV. REGULATORY INFORMATION:

EU Regulations/Classifications: Data not available.

US Regulations/Classifications: Irritant. Irritating to eyes, respiratory system, skin.

Caution: Avoid contact and inhalation.

Target organ(s): Kidneys.

In case of contact with eyes, wash thoroughly and seek medical attention

SARA Listed: No.

Canada (WHMIS): DSL: No, NDSL: No.

XVI. OTHER INFORMATION:

This product is not intended for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. The above information is believed to be accurate but is not necessarily all-inclusive and shall be used only as a guide. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.

Material Safety Data Sheet (MSDS) for Micrococcal Nuclease

New 03/08

I. IDENTIFICATION:

Product name: Micrococcal Nuclease
Product Catalog Number: Component of kit #9002 and #9003
CAS number: None
Manufacturer Supplier: Cell Signaling Technology®
3 Trask Lane
Danvers, MA 01923 USA
1-978-867-2300 TEL
1-978-867-2400 FAX
1-978-578-6737 Emergency Phone

II. COMPOSITION/INFORMATION ON INGREDIENTS:

According to 29 CFR 1910.1200(d), hazardous ingredients at less than <1% and carcinogens at less than <0.1% therefore considered non-hazardous. Any hazardous or carcinogenic ingredients meeting these criteria are listed below.

This product may contain the following hazardous ingredients:

Ingredient	CAS#	Percent
Glycerol	56-81-5	50%

III. HAZARD IDENTIFICATION:

Emergency Overview of Hazardous ingredient: Glycerol (CAS# 56-81-5)
Irritant. Irritating to eyes, respiratory system, skin.

Caution: Avoid contact and inhalation.

Target organ: Kidneys.

NFPA Rating: Health: 3 Flammability: 3 Reactivity: 0

IV. FIRST AID MEASURES:

Inhalation: Remove to fresh air. If breathing is difficult, get medical attention.

Ingestion: If person is conscious, wash out mouth with water. Get medical attention.

Skin Exposure: In case of contact, wash skin with soap and water.

Eye Exposure: In case of contact with eyes, immediately flush eyes with water for at least 15 minutes. Get medical attention.

V. FIRE FIGHTING MEASURES:

Flash Point: Data not available.

Autoignition Temperature: Data not available.

Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide.

Firefighting: Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes.

VI. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective equipment as indicated in Section VIII. Absorb liquid with an absorbent material. Transfer contaminated absorbent to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

VII. HANDLING AND STORAGE:

Store at -20°C in tightly closed container. Avoid inhalation and contact with eyes and skin. Avoid prolonged or repeated exposure.

VIII. EXPOSURE CONTROLS/PERSONAL

Ventilation System: A system of local and general exhaust is recommended.

Skin Protection: Wear compatible chemical resistant gloves and protective clothing.

Eye protection: Wear chemical safety goggles. Maintain emergency eyewash and shower in work area.

IX. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Physical State:	Liquid
Appearance:	Colorless
Odor:	Odorless
pH:	7.4 at 25°C
Boiling Point:	Data not available
Melting Point:	Data not available
Volatile Organic Compounds (VOC):	Data not available
Solubility:	Readily miscible in water

X. STABILITY AND REACTIVITY:

Stability: Stable.

Conditions to avoid: Strong oxidizing reagents.

Hazardous Decomposition: May form carbon dioxide and carbon monoxide.

XI. TOXICOLOGICAL INFORMATION:

May cause skin irritation.

May be toxic if absorbed through skin or ingested.

May cause eye irritation.

Target organs: Kidneys.

Prolonged exposure may cause nausea, headache, and vomiting.

XII. ECOLOGICAL INFORMATION:

Data not available.

XIII. DISPOSAL CONSIDERATIONS:

Dispose of in accordance with federal, state and local environmental regulations.

XIV. TRANSPORT INFORMATION:

D.O.T.

Proper Shipping Name: None.

This substance is considered non-hazardous for transport.

IATA

Proper Shipping Name: None.

This substance is considered non-hazardous for transport.

XV. REGULATORY INFORMATION:

EU Regulations/Classifications: Data not available.

US Regulations/Classifications:

Irritant. Irritating to eyes, respiratory system, skin.

Caution: Avoid contact and inhalation.

Target organ(s): Kidneys.

In case of contact with eyes, wash thoroughly and seek medical attention.

SARA Listed: No.

Canada (WHMIS): DSL No, NDSL No.

XVI. OTHER INFORMATION:

This product is not intended for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. The above information is believed to be accurate but is not necessarily all-inclusive and shall be used only as a guide. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.

Material Safety Data Sheet (MSDS) for Proteinase K Solution

New 03/08

I. IDENTIFICATION:

Product name: Proteinase K Solution
Product Catalog Number: Component of kit #9002 and #9003
CAS number: None
Manufacturer Supplier: Cell Signaling Technology®
3 Trask Lane
Danvers, MA 01923 USA
1-978-867-2300 TEL
1-978-867-2400 FAX
1-978-578-6737 Emergency Phone

II. COMPOSITION/INFORMATION ON INGREDIENTS:

According to 29 CFR 1910.1200(d), hazardous ingredients at less than <1% and carcinogens at less than <0.1% therefore considered non-hazardous. Any hazardous or carcinogenic ingredients meeting these criteria are listed below.

Ingredient	CAS#	Percent
Glycerol	56-81-5	50%

III. HAZARD IDENTIFICATION:

Emergency Overview of Hazardous ingredient: Glycerol (CAS# 56-81-5)
Irritant. Irritating to eyes, respiratory system, skin.

Caution: Avoid contact and inhalation.

NFPA Rating: Health: 1 Flammability: 0 Reactivity: 0

Target organ: Kidneys.

IV. FIRST AID MEASURES:

Inhalation: Remove to fresh air. If breathing is difficult, get medical attention.
Ingestion: If person is conscious, wash out mouth with water. Get medical attention.
Skin Exposure: Wash skin with soap and water. If irritation develops or persists, get medical attention.
Eye Exposure: Immediately flush eyes with water for at least 15 minutes. Get medical attention.

V. FIRE FIGHTING MEASURES:

Flash Point: Data not available.
Autoignition Temperature: Data not available.
Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide.
Firefighting: Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes.

VI. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective equipment as indicated in Section VIII. Absorb liquid with an absorbent material. Transfer contaminated absorbent to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

VII. HANDLING AND STORAGE:

Avoid inhalation and contact with eyes and skin. Avoid prolonged or repeated exposure. Store at -20°C in tightly closed container.

VIII. EXPOSURE CONTROLS/PERSONAL

Ventilation System: A system of local and general exhaust is recommended.
Skin Protection: Wear compatible chemical resistant gloves and protective clothing.
Eye protection: Wear chemical safety goggles. Maintain emergency eyewash and shower in work area.

IX. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Physical State: Liquid
Appearance: Colorless
Odor: Odorless
pH: 7.5 at 25°C
Boiling Point: Data not available
Melting Point: Data not available
Volatile Organic Compounds (VOC): Data not available
Solubility in water: Readily miscible in water

X. STABILITY AND REACTIVITY:

Stability: Stable.
Conditions to avoid: Strong oxidizing agents.
Hazardous Decomposition: May form carbon dioxide and carbon monoxide.

XI. TOXICOLOGICAL INFORMATION:

May cause skin irritation.
May be toxic if absorbed through skin or ingested.
May cause eye irritation.

Target organs: Kidneys

Prolonged exposure may cause nausea, headache, and vomiting.

XII. ECOLOGICAL INFORMATION:

Data not available.

XIII. DISPOSAL CONSIDERATIONS:

Dispose of in accordance with federal, state and local environmental regulations.

XIV. TRANSPORT INFORMATION:

D.O.T.

Proper Shipping Name: None.

This substance is considered non-hazardous for transport.

IATA

Proper Shipping Name: None.

This substance is considered non-hazardous for air transport.

XV. REGULATORY INFORMATION:

EU Regulations/Classifications: Data not available.

US Regulations/Classifications: Irritant. Irritating to eyes, respiratory system, skin.

Caution: Avoid contact and inhalation.

Target organ(s): Kidneys.

In case of contact with eyes, wash thoroughly and seek medical attention

SARA Listed: No.

Canada (WHMIS): DSL: No, NDSL: No.

XVI. OTHER INFORMATION:

This product is not intended for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. The above information is believed to be accurate but is not necessarily all-inclusive and shall be used only as a guide. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.