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

Issuing Date: 2018-05-10 **Revision Date:** 2024-05-14 **Version:** 2

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

1.1. Product identifier

Product No 9038

Product name Cell Fractionation Kit

Kit Component
9041: Cytoplasmic Isolation Buffer (CIB)
9048: Membrane Isolation Buffer (MIB)
9049: Cytoskeletal/Nuclear Isolation Buffer (CyNIB)
5871: Protease Inhibitor Cocktail (100X)

Hazardous Components
9049: Cytoskeletal/Nuclear Isolation Buffer (CyNIB)
5871: Protease Inhibitor Cocktail (100X)

Contains

Chemical name	Index No.	CAS No
benzenesulfonyl fluoride, 4-(2-aminoethyl)-, hydrochloride (1:1) (0 - 10%)	-	30827-99-7
sodium dodecyl sulphate (0 - 10%)	Not Listed	151-21-3
sodium fluoride (0 - 10%)	009-004-00-7	7681-49-4
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether (0 - 10%)	Not Listed	9002-93-1

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

Identified uses For Research Use Only. Not for Use in Diagnostic Procedures.

1.3. Details of the supplier of the safety data sheet

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

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

Website www.cellsignal.com
E-mail Address info@cellsignal.eu

1.4. Emergency telephone number

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

Europe 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Classification and label elements described below are inclusive of all hazards of the combined kit. The most severe classifications are listed for each endpoint. Refer to individual kit component SDS for classification and label elements for each component present in the kit.

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)

2.2. Label elements

Signal word
Warning

Hazard statement(s)
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.

Precautionary statement(s)
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313 - If skin irritation occurs: Get medical advice/attention.
P337 + P313 - If eye irritation persists: Get medical advice/attention.
P362 + P364 - Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

Polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether (CAS no. 9002-93-1) is a suspected endocrine disruptor. Endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100(3) or Commission Regulation (EU) 2018/605(4).

For the full text of the H-phrases & EUH-phrases mentioned in this Section, see Section 16

SECTION 3. Composition/information on ingredients

Kit Component **9041: Cytoplasmic Isolation Buffer (CIB)**

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number

sodium fluoride	7681-49-4	0.1-1	231-667-8	Acute Tox. 3 (H301) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) (EUH032)	no data available

Kit Component **9048: Membrane Isolation Buffer (MIB)**

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
sodium fluoride	7681-49-4	0.1-1	231-667-8	Acute Tox. 3 (H301) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) (EUH032)	no data available
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	9002-93-1	0.5	618-344-0	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)	no data available

Kit Component **9049: Cytoskeletal/Nuclear Isolation Buffer (CyNIB)**

WARNING: Causes serious eye irritation.

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
sodium dodecyl sulphate	151-21-3	1-3	205-788-1	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Acute Tox. 4 (H302) Acute Tox. 3 (H311)	no data available
sodium fluoride	7681-49-4	0.1-1	231-667-8	Acute Tox. 3 (H301) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) (EUH032)	no data available

Kit Component **5871: Protease Inhibitor Cocktail (100X)**

WARNING: Causes serious eye irritation. Causes skin irritation.

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
benzenesulfonyl fluoride, 4-(2-aminoethyl)-, hydrochloride (1:1)	30827-99-7	1-<3	608-547-2	Skin Corr. 1B (H314)	no data available

For the full text of the H-phrases & EUH-phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Use first aid treatment according to the nature of the injury. When symptoms persist or in all cases of doubt seek medical advice.

Inhalation	Move to fresh air.
Skin contact	Wash off immediately with soap and plenty of water. If skin irritation occurs, get medical advice/attention.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician if irritation persists.
Ingestion	Clean mouth with water and afterwards drink plenty of water.

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

Irritating to eyes and skin. Respiratory irritation. Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes. Significant esophageal or gastrointestinal tract irritation or burns may occur following ingestion.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to physician	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
Unsuitable Extinguishing Media	No information available

5.2. Special hazards arising from the substance or mixture

Sealed containers may rupture when heated.

Hazardous Combustion Products	Thermal decomposition can lead to release of irritating and toxic gases and vapors, Carbon oxides (COx), Nitrogen oxides (NOx), Sulfur oxides, Halogenated compounds

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

See Section 12 for more information. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Should not be released into the environment. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Dike to collect large liquid spills. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

6.4. Reference to other sections

See Sections 8 & 13 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Avoid breathing vapors or mists. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Ensure adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep in properly labeled containers.

7.3. Specific end use(s)

Use as a laboratory reagent.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values					
Chemical name	**European Union**	**United Kingdom**	**France**	**Spain**	**Germany**
sodium fluoride	TWA 2.5 mg/m³	STEL 7.5 mg/m³ TWA 2.5 mg/m³	TWA 2 mg/m³ TWA 2.5 mg/m³	TWA 2.5 mg/m³	TWA: 1 mg/m³ Skin
Chemical name	**Italy**	**Portugal**	**Netherlands**	**Finland**	**Denmark**
sodium fluoride	TWA 2.5 mg/m³	TWA 2.5 mg/m³ C(A4)		TWA 2.5 mg/m³	TWA 2.5 mg/m³
Chemical name	**Austria**	**Switzerland**	**Poland**	**Norway**	**Ireland**
sodium fluoride			TWA 2 mg/m³	TWA 0.5 mg/m³ STEL 1.5 mg/m³	TWA 2.5 mg/m³ STEL 7.5 mg/m³

Biological limit values					
Chemical name	**European Union**	**United Kingdom**	**France**	**Spain**	**Germany**
sodium fluoride			3 10	2 3	Biologische Grenzwerte nach TRGS 903 sind zu beachten
Chemical name	**Austria**	**Switzerland**	**Poland**	**Norway**	**Ireland**
sodium fluoride		4			

8.2. Exposure controls

Appropriate engineering controls
Showers, eyewash stations, and ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection	Safety glasses with side-shields
Skin protection	Wear protective gloves and protective clothing
Hand protection	Impervious gloves
Other	Wear suitable protective clothing.
Respiratory protection	In case of inadequate ventilation wear respiratory protection

Environmental Exposure Controls

No information available

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Information on the known physical chemical properties of each component within Kit are given below. If not included, information is either not available or not applicable. Refer to individual kit component SDS for further information.

Kit Component	**9041: Cytoplasmic Isolation Buffer (CIB)**
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH	7.5
Solubility	Soluble in water

Kit Component	**9048: Membrane Isolation Buffer (MIB)**
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH	7.5
Solubility	Soluble in water

Kit Component	**9049: Cytoskeletal/Nuclear Isolation Buffer (CyNIB)**
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH	7.5
Solubility	Soluble in water

Kit Component	**5871: Protease Inhibitor Cocktail (100X)**
Physical state	Liquid
Appearance	Clear
Color	Colorless
Odor	Odorless

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization	Hazardous polymerization does not occur.
Hazardous reactions	None under normal processing

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

Strong acids, Strong oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information
This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

Component Information

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
benzenesulfonyl fluoride, 4-(2-aminoethyl)-, hydrochloride (1:1)	2834 mg/kg (mouse)	-	-
sodium dodecyl sulphate	= 1288 mg/kg (Rat)	= 200 mg/kg (Rabbit)	> 3900 mg/m³ (Rat) 1 h
sodium fluoride	= 52 mg/kg (Rat)	= 175 mg/kg (Rat)	-
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	= 1800 mg/kg (Rat)	-	-

Information on likely routes of exposure

Inhalation There is no data available for this product.

Eye contact

Kit Component **9049: Cytoskeletal/Nuclear Isolation Buffer (CyNIB)**
Eye contact Irritating to eyes

Kit Component **5871: Protease Inhibitor Cocktail (100X)**
Eye contact Severely irritating to eyes

Skin contact

Kit Component **9049: Cytoskeletal/Nuclear Isolation Buffer (CyNIB)**
Skin contact May cause irritation

Kit Component **5871: Protease Inhibitor Cocktail (100X)**
Skin contact Irritating to skin

Ingestion There is no data available for this product.

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

Symptoms Irritating to eyes and skin. Respiratory irritation. Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes. Significant esophageal or gastrointestinal tract irritation or burns may occur following ingestion.

Skin and Eye Corrosion/Irritation

Kit Component	**5871: Protease Inhibitor Cocktail (100X)**
Serious eye damage/eye irritation	Causes serious eye irritation
Skin corrosion/irritation	Causes skin irritation

Sensitization No information available

Mutagenic effects No information available.

Carcinogenic effects No information available

Reproductive toxicity No information available.

Systemic Target Organ Toxicity (STOT) No information available

Aspiration Hazard No information available.

11.2. Information on other hazards

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Product Information No information available

Component Information

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
sodium dodecyl sulphate	EC50 53 mg/L (Desmodesmus subspicatus) 72 h EC50 30 - 100 mg/L (Desmodesmus subspicatus) 96 h EC50 42 mg/L (Desmodesmus subspicatus) 96 h EC50 3.59 - 15.6 mg/L (Pseudokirchneriella subcapitata) 96 h EC50 117 mg/L (Pseudokirchneriella subcapitata) 96 h	LC50 8 - 12.5 mg/L (Pimephales promelas) 96 h LC50 4.1 mg/L (Leuciscus idus) 48 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 LC50 15 - 18.9 mg/L (Pimephales promelas) 96 h	EC50 21.2 mg/L (Daphnia magna) 24 h EC50 1.8 mg/L (Daphnia magna) 48 h

sodium fluoride	EC50 850 mg/L (Desmodesmus subspicatus) 72 h EC50 272 mg/L (Pseudokirchneriella subcapitata) 96 h	LC50 530 mg/L (Lepomis macrochirus) 96 h LC50 180 mg/L (Pimephales promelas) 96 h LC50 38 - 68 mg/L (Oncorhynchus mykiss) 96 h LC50 830 mg/L (Lepomis macrochirus) 96 h	EC50 98 mg/L (Daphnia magna) 48 h EC50 338 mg/L (Daphnia magna) 48 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

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

Chemical name	Octanol-Water Partition Coefficient
sodium dodecyl sulphate	1.6

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Endocrine disrupting properties

Chemical name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	Endocrine disrupting properties, Article 57f - environment	-	-

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Other information Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

IMDG/IMO

14.1 UN number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated

14.4 Packing group	Not regulated
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Maritime transport in bulk according to IMO instruments	Not regulated

ADR/RID

14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	None
14.6 Special precautions for user	None

IATA

14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	None
14.6 Special precautions for user	None

SECTION 15: Regulatory information

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

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

Chemical name	Candidate List of Substances of Very High Concern for Authorization Information	REACH Annex XVII
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether (0 - 10%)	Reason for inclusion Endocrine disrupting properties, Article 57f - environment	-

SEVESO Directive Information

This product does not contain substances identified in the SEVESO Directive.

International inventories

TSCA 8(b)	-
DSL/NDSL	-
EINECS/ELINCS	-
ENCS	-
IECSC	-
KECL	-
PICCS	-
AICS	-

International inventories legend

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

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out

SECTION 16: Other information

Full text of H-Statements referred to under Sections 2 and 3

H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H315 - Causes skin irritation
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
EUH032 - Contact with acids liberates very toxic gas

Classification procedure: Expert judgment and weight of evidence determination.
Issuing Date: 2018-05-10
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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.