

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

Issuing Date: 2017-09-28

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Version: 4

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

1.1. Product identifier

Product No 8553
Product name PMSF

Contains

Chemical name alpha-toluenesulphonyl fluoride (100)	Index No. -	CAS No 329-98-6
Formula Molecular Weight	C ₇ H ₇ FO ₂ S 174.19 g/mol	

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
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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

Acute oral toxicity	Category 3 - (H301)
Skin corrosion/irritation	Category 1 - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)

2.2. Label elements

Signal word
Danger

Hazard statement(s)

H301 - Toxic if swallowed.

H314 - Causes severe skin burns and eye damage.

Precautionary statement(s)

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

P310 - Immediately call a POISON CENTER or doctor/physician.

P363 - Wash contaminated clothing before reuse.

P405 - Store locked up.

P501 - Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards

Contact with water liberates toxic gas.

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

SECTION 3: Composition/information on ingredients

3.1 Substances**Synonyms**

PMSF, Benzenemethanesulfonyl fluoride, Benzylsulfonyl fluoride, Phenylmethylsulfonyl fluoride, α -toluenesulphonyl fluoride

Formula

$C_7H_7FO_2S$

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
alpha-toluenesulphonyl fluoride	329-98-6	100	206-350-2	Acute Tox. 3 (301) Skin Corr. 1B (H314)	no data available

For the full text of the R-phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Inhalation	Move to fresh air. Call a physician immediately.
Skin contact	Rinse substance thoroughly from skin (approx. 5 minutes), then treat immediately with calcium gluconate gel. Call a physician immediately.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
Ingestion	Clean mouth with water and afterwards drink plenty of water. Call a physician immediately.
Protection of first-aiders	Use personal protective equipment. Avoid contact with skin, eyes and clothing.

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

Causes severe skin burns and eye damage. May cause irritation to mucous membranes and respiratory tract.

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	Dry powder Carbon dioxide (CO ₂) Alcohol-resistant foam Dry chemical
Unsuitable Extinguishing Media	No information available

5.2. Special hazards arising from the substance or mixture

Water hydrolyzes material liberating acidic gas. Contact with metals may evolve flammable hydrogen gas.

Hazardous Combustion Products	Carbon oxides (CO _x), Sulfur oxides, Hydrogen fluoride
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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	Ensure adequate ventilation. Use personal protective equipment. Avoid contact with the skin and the eyes. Avoid dust formation.
For emergency responders	Use personal protection recommended in Section 8.
Other information	DO NOT GET WATER on spilled substance or inside containers.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

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

Use personal protective equipment. Avoid dust formation. Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

6.4. Reference to other sections

See Sections 8 & 13 for additional information.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Ensure adequate ventilation. Wear personal protective equipment. Avoid dust formation. Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from direct contact with water or excessive moisture.

7.3. Specific end use(s)

Use as a laboratory reagent.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

8.2. Exposure controls**Appropriate engineering controls**

Showers, eyewash stations, and ventilation systems

Individual protection measures, such as personal protective equipment**Eye/face protection**

Tightly fitting safety goggles.

Skin protection

Wear protective gloves and protective clothing.

Hand protection

Impervious gloves.

Other

Impervious gloves Impervious 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****Physical state**

Solid - Crystalline Powder

Color

White to off-white, light yellow

Odor

No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	No information available
Melting point/freezing point	92 °C	
Boiling point or initial boiling point and boiling range	No information available	No information available
Flash point	No information available	No information available.
Evaporation rate	No information available	No information available
Flammability	No information available	No information available
Upper/lower flammability or explosive limits	/	No information available
Vapor pressure	No information available	No information available
Relative vapor density	No information available	No information available
Density and/or relative density	No information available	No information available
Solubility	No information available.	No information available
Partition coefficient: n-octanol/water	No information available	No information available
Autoignition temperature	No information available	No information available
Decomposition temperature	No information available	No information available.
Viscosity	No information available	No information available
Explosive properties	No information available	No information available
Oxidizing properties	No information available	No information available
9.2. Other information		
Softening point	No information available	
Molecular Weight	174.19 g/mol	
Solubility in other solvents	No information available	
VOC content	No information available	
Liquid Density	No information available	

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Reacts with water.

10.3. Possibility of hazardous reactions

Hazardous polymerization

Hazardous polymerization does not occur.

Hazardous reactions

Reaction with water or moist air will release toxic, corrosive or flammable gases

10.4. Conditions to avoid

Incompatible products. Extremes of temperature and direct sunlight. Exposure to water.

10.5. Incompatible materials

Strong oxidizing agents, Bases, Water, Glass.

10.6. Hazardous decomposition products

Carbon oxides (CO_x), Sulfur oxides, Hydrogen fluoride.

SECTION 11: Toxicological information

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

Toxic by ingestion. 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.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
alpha-toluenesulphonyl fluoride	200 (mg/kg) (mice)	-	-

Information on likely routes of exposure

Inhalation	Contact with moist mucous membranes of the respiratory system can cause caustic condition resulting in burns.
Eye contact	May cause irreversible damage to eyes.
Skin contact	Contact causes severe skin irritation and possible burns.
Ingestion	Ingestion causes burns of the upper digestive and respiratory tract. Toxic if swallowed.
Symptoms	Causes severe skin burns and eye damage. May cause irritation to mucous membranes and respiratory tract.
Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Sensitization	No information available.
Mutagenic effects	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration Hazard	No information available.

11.2. Information on other hazards

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Unknown Aquatic Toxicity 100% of the mixture consists of components of unknown hazards to the aquatic environment.

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

Bioaccumulation No information available.

Bioconcentration factor (BCF) No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors

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

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

IMDG/IMO

14.1 UN number	UN2928
14.2 UN proper shipping name	Toxic solid, corrosive, organic, n.o.s. (alpha-toluenesulphonyl fluoride)
14.3 Transport hazard class(es)	6.1(8)
14.4 Packing group	II
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	UN2928
14.2 UN proper shipping name	Toxic solid, corrosive, organic, n.o.s. (alpha-toluenesulphonyl fluoride)
14.3 Transport hazard class(es)	6.1(8)
14.4 Packing group	II
14.5 Environmental hazards	None
14.6 Special precautions for user	None

IATA

14.1 UN number	UN2928
14.2 UN proper shipping name	Toxic solid, corrosive, organic, n.o.s. (alpha-toluenesulphonyl fluoride)
14.3 Transport hazard class(es)	6.1(8)
14.4 Packing group	II
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)****SEVESO Directive Information**

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

International inventories

TSCA 8(b)	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	-
IECSC	Complies
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
H314 - Causes severe skin burns and eye damage
EUH029 - Contact with water liberates toxic gas

Classification procedure: Expert judgment and weight of evidence determination.
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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.