

Product name PMSF
(M)SDS Number 8553
Version 1

Issuing Date: 2025-01-06

1. Identification

Product identifier

Product name PMSF

Other means of identification

(M)SDS Number 8553

Contains

Chemical name	English chemical name	CAS No
alpha-toluenesulphonyl fluoride	alpha-toluenesulphonyl fluoride	329-98-6

UN number UN2928

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

Molecular Weight 174.19 g/mol

Details of the supplier of the safety data sheet

Manufacturer

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

Importer

Cell Signaling Technology, Inc.
Building 7
A-SUN Science & Technology Park
399 Shengxia Road
Pudong Shanghai 201210
China
TEL: 4006-473287
FAX: (86) 21-5835-6116

Supplier

No information available

E-mail address support@cellsignal.com

Emergency telephone number

Emergency telephone number In case of emergency call CHEMTREC 1-800-424-9300
+31 (0) 71 568 1047

Emergency telephone 400 120 4937

Recommended use of the chemical and restrictions on use

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

Restrictions on use No information available

2. Hazard(s) identification**Emergency Overview**

Toxic if swallowed. Causes severe skin burns and eye damage.

Appearance Crystalline Powder /
White to off-white, light yellow**Physical state** Solid**Odor** See section 9**Classification of the substance or mixture**

Acute toxicity - Oral	Category 3
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

Label elements**Signal Word**

Danger

Hazard Statements

Toxic if swallowed

Causes severe skin burns and eye damage

Prevention

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.

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

Response

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

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

Immediately call a POISON CENTER or doctor/physician.

Wash contaminated clothing before reuse.

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

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Rinse mouth.

Storage

Store locked up.

Disposal

Dispose of contents/container to an approved waste disposal plant

Physical and chemical hazards

Not applicable.

Health hazards

Immediate Health Effects: Contact may irritate or burn skin and eyes.

Chronic effects: Not applicable.

Environmental hazards

Not applicable.

Other hazards which do not result in classification

Contact with water liberates toxic gas.

3. Composition/information on ingredients

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

Chemical name	Weight-%	CAS No
alpha-toluenesulphonyl fluoride	100	329-98-6

4. First-aid measures**Description of necessary first aid measures**

Inhalation	Move to fresh air. 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.
Skin contact	Rinse substance thoroughly from skin (approx. 5 minutes), then treat immediately with calcium gluconate gel. Call a physician immediately.
Ingestion	Clean mouth with water and afterwards drink plenty of water. Call a physician immediately.
<u>Most important symptoms/effects, acute and delayed</u>	Causes severe skin burns and eye damage. May cause irritation to mucous membranes and respiratory tract.
<u>For emergency responders</u>	No information available.
<u>Note to physicians</u>	Treat symptomatically.

5. Fire-fighting measures**Extinguishing media**

Suitable Extinguishing Media	Dry powder Carbon dioxide (CO ₂) Alcohol-resistant foam Dry chemical
Unsuitable Extinguishing Media	No information available
<u>Specific hazards arising from the chemical</u>	Water hydrolyzes material liberating acidic gas. Contact with metals may evolve flammable hydrogen gas.
Hazardous Combustion Products	Carbon oxides (COx) Sulfur oxides Hydrogen fluoride
<u>Special protective actions for fire-fighters</u>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	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.
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.
Methods and material for containment and cleaning up	Prevent further leakage or spillage if safe to do so. Use personal protective equipment. Avoid dust formation. Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.
Precautions to prevent secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and storage

Precautions for safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. See Section 8 for information on appropriate personal protective equipment.
Conditions for safe storage, including any incompatibilities	Keep containers tightly closed in a dry, cool and well-ventilated place.
Incompatible materials	None known based on information supplied.

8. Exposure controls/personal protection

Occupational exposure limits

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

Biological occupational exposure limits

No data available

Monitoring and observation processes

No applicable information was found.

Engineering controls

Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection	Tightly fitting safety goggles.
Skin and body protection	Wear protective gloves/clothing.
Hand protection	Impervious gloves.
Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment.

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

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Crystalline Powder
Color	White to off-white, light yellow
Physical state	Solid
Odor	No information available
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	no data available	None known
Melting point/freezing point	92 °C	
Boiling point or initial boiling point and boiling range	no data available	None known
Flash point	no data available	None known
Evaporation rate	no data available	None known
Flammability	no data available	None known
Flammability Limits in Air		None known
Upper explosion limit	no data available	
Lower explosion limit	no data available	
Vapor pressure	no data available	None known
Relative vapor density	No data available	None known
Relative density	no data available	None known
Solubility	no data available	None known
Solubility in other solvents	no data available	None known
Partition coefficient: n-octanol/water	no data available	None known
Autoignition temperature	no data available	None known
Decomposition temperature	no data available	None known
Viscosity	no data available	None known
Viscosity, dynamic	no data available	None known

Additional information

Explosive properties	No information available
Oxidizing properties	No information available
Molecular Weight	174.19 g/mol

10. Stability and reactivity

Stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to Avoid Incompatible products
Extremes of temperature and direct sunlight
Exposure to water

Incompatible products Strong oxidizing agents, Bases, Water, Glass

Hazardous Decomposition Products Carbon oxides (COx), Sulfur oxides, Hydrogen fluoride.

11. Toxicological information

Acute Toxicity

Numerical measures of toxicity

No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 200.00 mg/kg

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

Skin corrosion/irritation No information available

Serious eye damage/eye irritation No information available

Respiratory or skin sensitization No information available

Mutagenic effects No information available

Carcinogenicity No information available

Reproductive toxicity No information available.

Specific target organ toxicity (single exposure) No information available

Specific target organ toxicity (repeated exposure) No information available

Aspiration hazard No information available

12. Ecological information

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

Unknown Aquatic Toxicity 100 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Mobility in soil No information available.

13. Disposal considerations

Waste chemicals Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Do not empty into drains; dispose of this material and its container in a safe way.

Contaminated packaging Do not reuse empty containers.

14. Transport information

IMDG/IMO

UN number	UN2928
UN proper shipping name	Toxic solid, corrosive, organic, n.o.s. (alpha-toluenesulphonyl fluoride)
Transport hazard class(es)	6.1(8)
Subsidiary hazard class	8
Packing group	II

IATA

UN number	UN2928
UN proper shipping name	Toxic solid, corrosive, organic, n.o.s. (alpha-toluenesulphonyl fluoride)
Transport hazard class(es)	6.1(8)
Subsidiary hazard class	8
Packing group	II

China

UN number	UN2928
UN proper shipping name	Toxic solid, corrosive, organic, n.o.s. (alpha-toluenesulphonyl fluoride)
Transport hazard class(es)	6.1
Subsidiary class	8
Packing group	II

Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

15. Regulatory information

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

National regulations

Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Catalog of occupational hazard factors:	Not applicable
Catalog of occupational diseases:	Not applicable

Regulations on the Control over Safety of Hazardous Chemicals

Inventory of hazardous chemicals	Not applicable
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GB 18218-2009 Identification of major hazard installations for dangerous chemicals	Not applicable
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List of hazardous chemicals under priority management	Not applicable
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Regulations on Labor Protection in Workplaces Where Toxic Substances Are Used

Inventory of highly toxic goods	Not applicable
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Regulations for Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

List of toxic chemicals severely restricted for import and export in China	Not applicable
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Measures for the Environmental Management of New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances -

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

16. Other information

Issuing Date: 2025-01-06

Revision Note The symbol (*) in the margin of this SDS indicates that this line has been revised.

Abbreviations and acronyms

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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
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

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

End of Safety Data Sheet