

Safety Data Sheet (SDS) According to the OSHA Hazard Communication Standard 29 CFR 1910.1200

Issuing Date: 2016-10-27

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Version: 3

SECTION 1. Identification

Product identifier

Product No 5871
Product name Protease Inhibitor Cocktail (100X)

Recommended use of the chemical and restrictions on use

Identified uses This product is intended for research purposes only.
Manufacturer, importer, supplier

Manufacturer address 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
Email address support@cellsignal.com
Emergency telephone number In case of emergency call CHEMTREC 1-800-424-9300

SECTION 2. Hazard(s) identification

Classification

This substance/mixture is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|--|-------------|
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2A |

GHS Label elements, including precautionary statements



Signal Word
 Warning.

Hazard statement(s)
 Causes skin irritation.
 Causes serious eye irritation.

Precautionary Statement(s)

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

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

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

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

If eye irritation persists: Get medical advice/attention

Supplementary Hazard Information**Hazards not otherwise classified (HNOC)**

Not applicable.

SECTION 3. Composition/information on ingredients

| Chemical name | CAS No | Weight-% |
|--|------------|----------|
| benzenesulfonyl fluoride, 4-(2-aminoethyl)-, hydrochloride (1:1) | 30827-99-7 | 1-3 |

SECTION 4. First-aid measures

| | |
|---------------------|--|
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician if irritation persists. |
| Skin contact | Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation occurs, get medical advice/attention. |
| Inhalation | Move to fresh air. If symptoms persist, call a physician. |
| Ingestion | Clean mouth with water and afterwards drink plenty of water. Call a doctor if you feel unwell. |

Most important symptoms and effects, both acute and delayed

Irritating to eyes and skin. 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. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Advice for emergency responders

| | |
|-----------------------------------|--|
| General advice | For further assistance, contact your local Poison Control Center. |
| Protection of first-aiders | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

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

| | |
|-------------------------------------|---|
| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
|-------------------------------------|---|

Specific hazards arising from the chemical

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.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel 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. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

Other information No information available.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained. Prevent entry into waterways, sewers, basements or confined areas.

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 (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.

SECTION 7. Handling and storage

Precautions for safe handling

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Avoid breathing vapors or mists.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Keep in properly labeled containers.
Packaging material No information available.
Incompatible products None known based on information supplied.

SECTION 8. Exposure controls/personal protection

Control parameters

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

Appropriate engineering controls

Showers, eyewash stations, and ventilation systems.

Individual protection measures, such as personal protective equipment

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

| | |
|---------------------------------|---|
| Eye/face protection | Tightly fitting safety goggles |
| Skin and body protection | Wear protective gloves/clothing. |
| Respiratory protection | In case of inadequate ventilation wear respiratory protection. |
| Hygiene measures | Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feeding stuffs. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Provide regular cleaning of equipment, work area and clothing. |

SECTION 9. Physical and chemical properties

Information on basic physical and chemical properties

| | | | |
|-----------------------|----------|-----------------------|--------------------------|
| Physical state | Liquid | Color | Colorless |
| Appearance | Clear | Odor Threshold | No information available |
| Odor | Odorless | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks</u> | <u>Method</u> |
|---|---------------------------|----------------|---------------|
| pH | No information available | | |
| Melting point/freezing point | | | |
| Boiling point or initial boiling point and boiling range | | | |
| Flash point | > 100 °C / > 212 °F | - Closed cup | |
| Evaporation rate | No information available | | |
| Flammability | No information available | | |
| Upper flammability limit | No information available | | |
| Lower flammability limit | No information available | | |
| Vapor pressure | No information available | | |
| Relative vapor density | No information available | | |
| Density and/or relative density | No information available | | |
| Solubility | Soluble in water | | |
| Solubility in other solvents | No information available. | | |
| Partition coefficient: n-octanol/water | No information available | | |
| Autoignition temperature | No information available | | |
| Decomposition temperature | No information available | | |
| Viscosity | No information available | | |
| Viscosity, dynamic | No information available | | |
| Explosive properties | No information available | | |
| Oxidizing properties | No information available | | |

Other information

| | |
|-------------------------|--------------------------|
| Softening point | No information available |
| Molecular Weight | No information available |
| VOC content | No information available |
| Liquid Density | No information available |
| Bulk density | No information available |

SECTION 10. Stability and reactivity

Reactivity

No information available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous reactions None under normal processing.
Hazardous polymerization None under normal processing.

Conditions to Avoid

Heat.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

SECTION 11. Toxicological information

Information on likely routes of exposure

Inhalation Avoid breathing vapors or mists. May cause irritation of respiratory tract.
Eye contact Expected to be an irritant based on components. Severely irritating to eyes.
Skin contact Expected to be an irritant based on components. Irritating to skin.
Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Information on toxicological effects

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 |
|--|--------------------|-------------|-----------------|
| benzenesulfonyl fluoride, 4-(2-aminoethyl)-, hydrochloride (1:1) | 2834 mg/kg (mouse) | - | - |

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

Symptoms Irritating to eyes and skin. 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. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Skin corrosion/irritation Causes skin irritation.
Serious eye damage/eye irritation Causes serious eye irritation.

Sensitization No information available.
Mutagenic effects No information available.
Carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Neurological effects No information available.
Aspiration Hazard No information available.

SECTION 12. Ecological information

Ecotoxicity

3% of the mixture consists of components of unknown hazards to the aquatic environment.

| | |
|--------------------------------------|---------------------------|
| Persistence and degradability | No information available |
| Mobility | No information available |
| Bioaccumulation | No information available. |

Other adverse effects

No information available.

SECTION 13. Disposal considerations

Waste Disposal Methods

Dispose of in accordance with all applicable national environmental laws and regulations.

Disposal considerations

Do not empty into drains; dispose of this material and its container in a safe way. Dispose of wastes in an approved waste disposal facility.

SECTION 14. Transport information

This material is not subject to regulation as a hazardous material for shipping.

SECTION 15. Regulatory information

North American Inventory Listing

Canadian Workplace Hazardous Materials Information System (WHMIS) Classification

This product does not meet the criteria for classification under the Hazardous Products Act.

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

| | |
|--|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40

CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. FIFRA Label Information

This product does not contain any substances regulated as pesticides.

US Commerce Department - Export Administration Regulations Information

This product does not contain any substances regulated under the Chemical Weapons Convention (CWC).

U.S. Drug Enforcement Administration Information

This product does not contain any substances regulated under the DEA.

SECTION 16. Other information

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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.

End of Safety Data Sheet