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

### 1.1. Product identifier

**Product No** 5633  
**Product name** SB203580  
**Reach registration number** This substance/mixture contains only ingredients which have been registered, or are exempt from registration, according to Regulation (EC) No. 1907/2006.

**Contains**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Index No.</th>
<th>CAS No</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-[4-(4-fluorophenyl)-2-(4-methylsulfinylphenyl)-1H-imidazol-5-yl]pyridine (90 - 100%)</td>
<td>Not Listed</td>
<td>152121-47-6</td>
</tr>
</tbody>
</table>

**Formula** C_{21}H_{16}F_{3}N_{3}OS  
**Molecular Weight** 377.44 g/mol

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

**Identified uses** For research use only

### 1.3. Details of the supplier of the safety data sheet

**Importer (Applicable in EU only)** Cell Signaling Technology Europe B.V.  
**Schuttersveld 2**  
**2316 ZA Leiden**  
**The Netherlands**  
**TEL:** +31 (0)71 7200 200  
**FAX:** +31 (0)71 891 0098

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

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

**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**

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>Category 4 - (H302)</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 1 - (H318)</td>
</tr>
</tbody>
</table>
2.2. Label elements

![Signal word]

**Signal word**  
Danger

**Hazard statement(s)**  
H302 - Harmful if swallowed  
H318 - Causes serious eye damage

**Precautionary statement(s)**  
P264 - Wash face, hands and any exposed skin thoroughly after handling  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
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  
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
P330 - Rinse mouth  
P501 - Dispose of contents/container to an approved waste disposal plant

2.3. Other hazards

*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**  
SB203580;  
Pyridine, 4-[(5-(4-fluorophenyl)-2-(4-(methylsulfinyl)phenyl)-1H-imidazol-4-yl)oxy]-;  
4-(4-Fluorophenyl)-2-(4-methylsulfinylphenyl)-5-(4-pyridyl)-1H-imidazole

**Formula**  
C_{21}H_{16}FN_{3}O_{5}

**Chemical nature**  
Monoconstituent substance.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight %</th>
<th>EC No</th>
<th>Classification (1272/2008)</th>
<th>REACH Registration Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-(4-(4-Fluorophenyl)-2-(4-methylsulfinylphenyl)-1H-imidazol-5-yl)pyridine</td>
<td>152121-47-6</td>
<td>100</td>
<td>-</td>
<td>Acute Tox. 4 (H302) Eye Dam. 1 (H318)</td>
<td>no data available</td>
</tr>
</tbody>
</table>

*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**  
If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance. Do not breathe dust/fume/gas/mist/vapors/spray.

**Inhalation**  
Immediate medical attention is not required. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If
skin contact
Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Immediate medical attention is not required. If symptoms persist, call a physician.

Eye contact
Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.

Ingestion
Rinse mouth. Drink plenty of water. If symptoms persist, call a physician. Do NOT induce vomiting. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

Protection of first-aiders
Use personal protective equipment.

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

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

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

5.3. Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

For emergency responders
Use personal protection recommended in Section 8.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

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. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid dust formation. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Take precautionary measures against static discharges.

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. Prevent the formation of vapors, mists and aerosols. Do not eat, drink or smoke when using this product. Use only in area provided with appropriate exhaust ventilation. When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from direct sunlight.

7.3. Specific end use(s)

Use as a laboratory reagent.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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
   Hand protection    Impervious gloves.
   Other             Long sleeved clothing. Impervious gloves.
Respiratory protection In case of inadequate ventilation wear respiratory protection.

Environmental Exposure Controls
Do not allow material to contaminate ground water system.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
<td>No information available</td>
</tr>
<tr>
<td>Appearance</td>
<td>Powder</td>
<td>No information available</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
<td>No information available</td>
</tr>
<tr>
<td>Odor</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Solubility</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>
9.2. Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Softening point</td>
<td>No information available</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>377.44 g/mol</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
</tr>
<tr>
<td>VOC content</td>
<td>No information available</td>
</tr>
<tr>
<td>Density</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Reaction</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous polymerization</td>
<td>Hazardous polymerization does not occur.</td>
</tr>
<tr>
<td>Hazardous reactions</td>
<td>None under normal processing.</td>
</tr>
</tbody>
</table>

10.4. Conditions to avoid

None known based on information supplied.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors. Carbon oxides (COx), Nitrogen oxides (NOx), Sulfur oxides. Hydrogen fluoride.

SECTION 11: Toxicological information

11.1. 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.

Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>There is no data available for this product.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>May cause irreversible damage to eyes.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>There is no data available for this product.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>Symptoms</td>
<td>No information available.</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>No information available.</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>No information available.</td>
</tr>
<tr>
<td>Sensitization</td>
<td>No information available.</td>
</tr>
<tr>
<td>Mutagenic effects</td>
<td>No information available.</td>
</tr>
<tr>
<td>Carcinogenic effects</td>
<td>No information available.</td>
</tr>
</tbody>
</table>
Reproductive toxicity
STOT - single exposure
STOT - repeated exposure
Aspiration Hazard
Other information

No information available.

SECTION 12: Ecological information

12.1. Toxicity
No information available.

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. 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
  According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. 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 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not regulated
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

Candidate List of Substances of Very High Concern for Authorization Information

This product does not contain Substances of Very High Concern (SVHC).

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

H302 - Harmful if swallowed
H318 - Causes serious eye damage

Classification procedure: Expert judgment and weight of evidence determination.
Issuing Date: 2018-02-08

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.