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

**1.1. Product identifier**

| Product No | 9052 |
| Product name | Dasatinib |
| 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**

| Chemical Name | Index No. | CAS No |
| N-(2-chloro-6-methylphenyl)-2-[[6-[[4-(2-hydroxyethyl)piperazin-1-yl]-2-methylpyrimidin-4-yl]amino]-1,3-thiazole-5-carboxamide (90 - 100%) | Not Listed | 302962-49-8 |

| Formula | C₂₂H₂₆ClN₇O₂S |
| Molecular Weight | 488.0 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**

| Acute oral toxicity | Category 3 - (H301) |
| Reproductive toxicity | Category 1B - (H360Df) |
2.2. Label elements

Signal word
Danger

Hazard statement(s)
H301 - Toxic if swallowed
H360Df - May damage the unborn child. Suspected of damaging fertility
H372 - Causes damage to organs through prolonged or repeated exposure
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statement(s)
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
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
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P330 - Rinse mouth
P391 - Collect spillage
P405 - Store locked up
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
Dasatinib (anhydrous);
Sprycel;
5-Thiazolecarboxamide,
N-(2-chloro-6-methylphenyl)-2-((6-(4-(2-hydroxyethyl)-1-piperazinyl)-2-methyl-4-pyrimidinyl) amino)-;
N-(2-chloro-6-methylphenyl)-2-(6-(4-(2-hydroxyethyl)-piperazin-1-yl)-2-methylpyrimidin-4-yl amino) thiazole-5-carboxamide

Formula
C22H26Cl2N7O2S

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>
</table>

Page 2 / 9
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
Immediate medical attention is required. Move to fresh air. If not breathing, give artificial respiration.

Skin contact
Immediate medical attention is required. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

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

Ingestion
Do NOT induce vomiting. Immediate medical attention is required. Never give anything by mouth to an unconscious person. Drink plenty of water.

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


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 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
Use personal protective equipment.

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.
Clean contaminated surface thoroughly. 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.

Methods for cleaning up
Clean contaminated surface thoroughly. 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.

6.4. Reference to other sections

See Sections 8 & 13 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Wear personal protective equipment. Ensure adequate ventilation. When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Protect from light. Protect from moisture. Keep in a bunded area.

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 Impervious gloves. Impervious clothing.
Respiratory protection
In case of inadequate ventilation wear respiratory protection.

Environmental Exposure Controls
Local authorities should be advised if significant spillages cannot be contained. Do not allow material to contaminate ground water system. Prevent product from entering drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Powder</td>
</tr>
<tr>
<td>Color</td>
<td>White to off-white</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
</tbody>
</table>
9052 Dasatinib

Odor Threshold
No information available

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>274-276 °C</td>
<td>No information available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Flash point</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Relative density</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water</td>
<td>No information available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td></td>
<td>No information available</td>
</tr>
</tbody>
</table>

9.2. Other information

Softening point
No information available

Molecular Weight
488.0 g/mol

Solubility in other solvents
Soluble in dimethyl sulfoxide (DMSO) @ 200 mg/mL

VOC content
No information available

Density
No information available.

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
None known based on information supplied.

10.5. Incompatible materials
Strong oxidizing agents, Chlorinated compounds.

10.6. Hazardous decomposition products
Thermal decomposition can lead to release of irritating gases and vapors: Carbon oxides (COx), Nitrogen oxides (NOx).

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.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-(2-chloro-6-methylphenyl)-2-[[6-[4-(2-hydroxyethyl)piperazin-1-yl]-2-methylpyrimidin-4-yl]amino]-1,3-thiazole-5-carboxamide</td>
<td>50 - 100 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Information on likely routes of exposure

- **Inhalation**: May cause irritation of respiratory tract.
- **Eye contact**: Contact with eyes may cause irritation.
- **Skin contact**: May cause irritation.
- **Ingestion**: May be fatal if swallowed.

Symptoms


Skin corrosion/irritation: No information available.

Serious eye damage/eye irritation: Not applicable.

Sensitization: No sensitization responses were observed.

Mutagenic effects: The weight of evidence demonstrates that this material is not genotoxic: Caused chromosomal aberrations in vitro in Chinese hamster ovary (CHO) cells.

Carcinogenic effects: This material was a carcinogen in animal studies. 2 years oral (daily) rat study: Tumor LOAEL = 0.3 mg/kg (males and females). (tumor organs: uterus/cervix, prostate).

Reproductive toxicity: This material is classified as a Pregnancy Category D: Positive evidence of risk. Oral (Rat): NOAEL (parent, females) = 5 mg/kg. Results of repeat dose toxicity studies in multiple species indicate the potential for dasatinib to impair reproductive function and fertility. Effects evident in male animals included reduced size and secretion of seminal vesicles, and immature prostate, seminal vesicle, and testis. Effects evident in female animals included uterine inflammation and mineralization in monkeys, and cystic ovaries and ovarian hypertrophy in rodents.

Developmental toxicity: Fetal death was observed in rats. Oral (Rat): LOAEL (embryo/fetus) = 2.5 mg/kg. Embryo-fetal toxicities included: skeletal malformations at multiple sites (scapula, humerus, femur, radius, ribs, clavicle), reduced ossification (sternum; thoracic, lumbar, and sacral vertebrae; forepaw phalanges; pelvis; and hyoid body), edema, and microhepatia.

STOT - single exposure: No information available.

STOT - repeated exposure: 2 weeks - 2 years oral (5/week-daily) monkey, rat study with recovery period (2 - 4 weeks) (males and females): NOAEL = 0.3 mg/kg. Low dose effects include: abnormal posture, hypoactivity, tremors, labored respiration, swelling, paleness, fecal changes, menstrual irregularities, gastrointestinal tract toxicity, decreased weight gain, decreased food consumption, changes in clinical chemistry parameters, decreased red blood cell count, changes in white blood cell parameters, lymphoid depletion, ovary effects, changes in the uterus. Decreased organ weights included: spleen, pituitary gland. Increased organ weights included: heart, liver, thyroid gland, ovary, adrenal glands, mortality. Low dose microscopic effects include: liver, lymph nodes, ovary, uterus, large intestine, small intestine, adrenal glands, thyroid gland, kidney, thymus, bone marrow, spleen, stomach, lungs.

Target Organ Effects: Heart, Gastrointestinal tract (GI), Bone marrow, Immune system.

Other adverse effects: In vitro phototoxicity (mouse): NOAEL = 30 mg/kg.

Other information: No information available.

SECTION 12: Ecological information

12.1. Toxicity
12.2. Persistence and degradability

Not readily biodegradable. 0.4% @ 21 days. Koc (Estimation by HPLC, Activated Sludge) : 2,430.

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Bioaccumulation</th>
<th>Does not bioaccumulate.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioconcentration factor (BCF)</td>
<td>3</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

Is not likely mobile in the environment due its low water solubility.

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

Should not be released into the environment. Dispose of in accordance with the European Directives on waste and hazardous waste.

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

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>UN2811</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>Toxic solid, organic, n.o.s. (Dasatinib)</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>6.1</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>II</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>None</td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td></td>
</tr>
<tr>
<td>EmS No.</td>
<td></td>
</tr>
<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
<td>Not regulated</td>
</tr>
</tbody>
</table>

ADR/RID

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>UN2811</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>Toxic solid, organic, n.o.s. (Dasatinib)</td>
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<td>14.3 Transport hazard class(es)</td>
<td>6.1</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>II</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>None</td>
</tr>
</tbody>
</table>
14.6 Special precautions for user
Classification Code: None
Tunnel Restriction Code: T2

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

H2 - ACUTE TOXIC

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
H360Df - May damage the unborn child. Suspected of damaging fertility
H372 - Causes damage to organs through prolonged or repeated exposure
H410 - Very toxic to aquatic life with long lasting effects

Classification procedure: Expert judgment and weight of evidence determination.
Issuing Date: 2015-01-06
Revision Date: 2018-03-14

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.