



SAFETY DATA SHEET (SDS): According to the OSHA Hazard Communication Standard 29 CFR 1910.1200
Issuing Date: 2015-01-06 **Revision Date:** 2015-01-07

Version: 2

SECTION 1. Identification

Product identifier

Product number 9052
Product name Dasatinib
UN number UN2811
Other means of identification 9052S

Recommended use of the chemical and restrictions on use

Identified uses This product is intended for research purposes only.
Uses advised against This product is not intended for use in diagnostic procedures or therapeutics.
This product is not intended for use in humans or animals.

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
Company phone number 978-867-2300
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)

Acute oral toxicity	Category 3
Carcinogenicity	Category 2
Reproductive toxicity	Category 1B
Specific target organ toxicity - repeated exposure (STOT RE)	Category 1

GHS Label elements, including precautionary statements



Signal Word
Danger

Hazard statement(s)

Toxic if swallowed
 Suspected of causing cancer
 May damage fertility or the unborn child
 Causes damage to organs through prolonged or repeated exposure

Precautionary Statement(s)

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not breathe dust/fume/gas/mist/vapors/spray
 IF exposed or concerned: Get medical advice/attention
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 Rinse mouth
 Store locked up
 Dispose of contents/container to an approved waste disposal plant

Supplementary Hazard Information

Hazards not otherwise classified (HNOC) Very toxic to aquatic life with long lasting effects

SECTION 3. Composition/information on ingredients
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Formula	C ₂₂ H ₂₆ ClN ₇ O ₂ S
Molecular Weight	488.0 g/mol
Chemical nature	Monoconstituent substance
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

Chemical Name	CAS No	Weight %
N-(2-chloro-6-methylphenyl)-2-[[6-[4-(2-hydroxyethyl)l)piperazin-1-yl]-2-methylpyrimidin-4-yl]amino]-1,3-thiazole-5-carboxamide	302962-49-8	100

SECTION 4. First-aid measures

Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.
Skin contact	Immediate medical attention is required. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.
Inhalation	Immediate medical attention is required. Move to fresh air. If not breathing, give artificial respiration.
Ingestion	Do NOT induce vomiting. Immediate medical attention is required. Never give anything by mouth to an unconscious person. Drink plenty of water.

Most important symptoms and effects, both acute and delayed

Acute effects include: gastrointestinal disturbance, headache, mental disturbance, fever, breathing difficulties, pulmonary hypertension, hypoxia, fatigue, chest pain, muscle pain, dizziness, ringing in ears. Chronic effects include: cardiac irregularities, prolonged QT interval, heart attack, congestive heart failure, changes in blood pressure, hemorrhage, fluid retention, bone marrow suppression, infection, neuropathy, abnormal liver enzymes, hyperuricemia.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Advice for emergency responders

General advice Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Protection of first-aiders Use personal protective equipment. Avoid contact with skin, eyes and clothing.

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

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

Unsuitable Extinguishing Media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

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 Use personal protective equipment.

Other information No information available.

Environmental precautions

Do not flush into surface water or sanitary sewer system.

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 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 and collect in suitable container for disposal. Avoid dust formation.

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

Wear personal protective equipment. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep container tightly closed in a dry and well-ventilated place. Protect from light. Protect from moisture. Keep in a banded area.

Packaging material No information available.

Incompatible products Strong oxidizing agents, Chlorinated compounds.

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	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene measures	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.

SECTION 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Solid
Appearance	Powder
Odor	None
Color	White to off-white
Odor Threshold	No information available
pH	No information available
Melting point/freezing point	274-276 °C
Initial boiling point and boiling range	No information available
Flash point	No information available.
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper flammability limit	No information available.
Lower flammability limit	No information available.
Vapor pressure	No information available
Vapor density	No information available
Relative density	No information available
Solubility	Insoluble 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.
Explosive properties	No information available
Oxidizing properties	No information available
Molecular Weight	488.0 g/mol
VOC content	No information available
Viscosity	No information available.
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

No information available.

Incompatible Materials

Strong oxidizing agents, Chlorinated compounds.

Hazardous Decomposition Products

None under normal use. Thermal decomposition can lead to release of irritating gases and vapors: Carbon oxides (COx), Nitrogen oxides (NOx).

SECTION 11. Toxicological information

Information on likely routes of exposure

Inhalation	May be harmful if inhaled. Inhalation of particulates may cause mechanical irritation to upper respiratory tract.
Eye contact	Contact with eyes may cause mechanical irritation.
Skin contact	Contact with skin may cause mechanical irritation.
Ingestion	May be fatal if swallowed.

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
N-(2-chloro-6-methylphenyl)-2-[[[6-[4-(2-hydroxyethyl)piperazin-1-yl]-2-methylpyrimidin-4-yl]amino]-1,3-thiazole-5-carboxamide	50 - 100 mg/kg (Rat)	-	-

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

Symptoms	Acute effects include: gastrointestinal disturbance, headache, mental disturbance, fever, breathing difficulties, pulmonary hypertension, hypoxia, fatigue, chest pain, muscle pain, dizziness, ringing in ears. Chronic effects include: cardiac irregularities, prolonged QT interval, heart attack, congestive heart failure, changes in blood pressure, hemorrhage, fluid retention, bone marrow suppression, infection, neuropathy, abnormal liver enzymes, hyperuricemia.
Skin corrosion/irritation	Not irritating to skin.

Serious eye damage/eye irritation	Not an eye irritant based on in vitro assay.
Sensitization	No sensitization responses were observed.
Mutagenic effects	The weight of evidence demonstrates that this material is not genotoxic: Negative in an in vivo rat micronucleus test. Negative in the Ames test. Caused chromosomal aberrations in vitro in Chinese hamster ovary (CHO) cells.
Carcinogenicity	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 inuterine inflammation and mineralization in monkeys, and cystic ovaries and ovarian hypertrophy in rodents.
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.
Neurological effects	No information available.
Other adverse effects	In vitro phototoxicity (mouse) : NOAEL = 30 mg/kg.
Aspiration Hazard	No information available.

SECTION 12. Ecological information

Ecotoxicity

Very toxic to aquatic life with long lasting effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
N-(2-chloro-6-methylphenyl)-2-[[6-[4-(2-hydroxyethyl)piperazin-1-yl]-2-methylpyrimidin-4-yl]amino]-1,3-thiazole-5-carboxamide	EC50 0.14 mg/L (Pseudokirchneriella subcapitata) 72 h	LC50 >0.5 mg/L (Oncorhynchus mykiss) 96 h (limit of solubility)	-

Persistence and degradability	Not readily biodegradable. 0.4% @ 21 days. Koc (Estimation by HPLC, Activated Sludge) : 2,430.
Bioaccumulation	Does not bioaccumulate.
Mobility	Is not likely mobile in the environment due its low water solubility

Other adverse effects

No information available.

SECTION 13. Disposal considerations

Waste Disposal Methods

Should not be released into the environment. Dispose of in accordance with local regulations.

Disposal considerations

Do not empty into drains; dispose of this material and its container in a safe way.

SECTION 14. Transport information**DOT**

UN number	UN2811
UN proper shipping name	Toxic solid, organic, n.o.s. (Dasatinib)
Transport hazard class(es)	6.1
Packing group	II
Special provisions	IB8, IP2, IP4, T3, TP33
Emergency response guide number	154


IATA

UN number	UN2811
UN proper shipping name	Toxic solid, organic, n.o.s. (Dasatinib)
Transport hazard class(es)	6.1
Packing group	II
ERG code	6L

SECTION 15. Regulatory information**North American Inventory Listing**

Chemical Name	TSCA 8(b)	TSCA 12(b)	DSL	NDSL
N-(2-chloro-6-methylphenyl)-2-[[6-[4-(2-hydroxyethyl)piperazin-1-yl]-2-methylpyrimidin-4-yl]amino]-1,3-thiazole-5-carboxamide	Not Listed	Not Listed	Not Listed	Not Listed

Canadian Workplace Hazardous Materials Information System (WHMIS) Classification

	Class D1A - Very Toxic Materials at $\geq 1\%$ Class D2A - Very Toxic Material at $\geq 0.1\%$
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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	Yes
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