

SAFETY DATA SHEET (SDS): According to the OSHA Hazard Communication Standard 29 CFR 1910.1200

### **SECTION 1. Identification**

#### Product identifier

Product number 12209
Product name Nilotinib
Other means of identification 12209S

#### 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.

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TEL: +1 978 867 2300 FAX: +1 978 867 2400 www.cellsignal.com 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

**Email address** 

Website

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

Reproductive toxicity	Category 1B Effects on or via lactation
Specific target organ toxicity - repeated exposure (STOT RE)	Category 1

## GHS Label elements, including precautionary statements



Signal Word Danger

Hazard statement(s)

May damage fertility or the unborn child

May cause harm to breast-fed children

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 Do not breathe dust/fume/gas/mist/vapors/spray Avoid contact during pregnancy/while nursing

Avoid contact during pregnancy/while hursing

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product IF exposed or concerned: Get medical advice/attention

Store locked up

Dispose of contents/container to an approved waste disposal plant

#### Supplementary Hazard Information

Hazards not otherwise classified (HNOC) May cause long lasting harmful effects to aquatic life

## **SECTION 3. Composition/information on ingredients**

AMN 107; Benzamide,

4-methyl-N-[3-(4-methylimidazol-1-yl)-5-(trifluoromethyl)phenyl]-3-[(4-pyridin-3-ylpyrimidin-2-ylp

-yl)amino]benzamide

Chemical Name	CAS No	Weight %
N-[3-[3-(1H-imidazolyl)propoxy]phenyl]-4-methyl-3-[	641571-10-0	100
[4-(3-pyridinyl)-2-pyrimidinyl]amino]benzamide		

## **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

Commonly reported symptioms include: nausea, rash, headache, fatigue, pruritus, vomiting, diarrhea, cough, constipation, arthralgia, nasopharyngitis, pyrexia, night sweats and myelosuppression: thrombocytopenia, neutropenia and anemia.

## 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.

## **SECTION 5. Fire-fighting measures**

### Extinguishing media

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

Ensure adequate ventilation. No information available.

Other information

## **Environmental precautions**

Do not flush into surface water or sanitary sewer system.

#### Methods and material for containment and cleaning up

Methods for containment Methods for cleaning up Prevent further leakage or spillage if safe to do so.

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. Clean contaminated surface thoroughly.

## **SECTION 7. Handling and storage**

## Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

Technical measures/Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

conditions

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 Skin and body protection**Tightly fitting safety goggles.

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 No information available
Color Off-white to pale yellow
Odor Threshold No information available
pH No information available

Melting point/freezing point 230 - 242 °C

Initial boiling point and boiling No information available

range

Flash point No information available. **Evaporation rate** No information available Flammability (solid, gas) No information available Upper flammability limit No information available. No information available. Lower flammability limit Vapor pressure No information available Vapor density No information available Relative density No information available Solubility Practically insoluble Solubility in other solvents No information available Partition coefficient: n-octanol/waterNo information available **Autoignition temperature** No information available **Decomposition temperature** No information available. **Explosive properties** No information available **Oxidizing properties** No information available **Molecular Weight** 529.52 g/mol **VOC** content No information available

## **SECTION 10. Stability and reactivity**

No information available.

No information available.

#### Reactivity

**Viscosity** 

**Density** 

No information available.

## **Chemical stability**

Stable under recommended storage conditions.

## Possibility of hazardous reactions

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

#### **Conditions to Avoid**

No information available.

#### Incompatible Materials

None known based on information supplied.

#### **Hazardous Decomposition Products**

None known based on information supplied.

## **SECTION 11. Toxicological information**

## Information on likely routes of exposure

Inhalation Inhalation of particulates may cause mechanical irritation to upper respiratory tract.

Eye contactContact with eyes may cause mechanical irritation.Skin contactContact with skin may cause mechanical irritation.IngestionMay be harmful if swallowed: Target Organ Effects.

### Information on toxicological effects

Carcinogenicity

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 toxocological and physiological properties of this compound is not well defined.

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

**Symptoms** Commonly reported symptioms include: nausea, rash, headache, fatigue, pruritus, vomiting,

diarrhea, cough, constipation, arthralgia, nasopharyngitis, pyrexia, night sweats and

myelosuppression: thrombocytopenia, neutropenia and anemia.

**Sensitization** No information available.

Mutagenic effects Did not show mutagenic effects in animal experiments: Negative in the chromosomal

aberration assay, Negative in the Ames test, Negative in an in vivo rat micronucleus test. 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** This material is classified as a Pregnancy Category D: Positive evidence of risk. In rats,

nilotinib at doses of 100 mg/kg/day was associated with maternal toxicity (decreased gestation weight, gravid uterine weight, net weight gain, and food consumption). Nilotinib at doses =30 mg/kg/day resulted in embryo-fetal toxicity as shown by increased resorption and post-implantation loss, and at 100 mg/kg/day, a decrease in viable fetuses. In rabbits, maternal toxicity at 300 mg/kg/day was associated with mortality, abortion, decreased gestation weights and decreased food consumption. Embryonic toxicity (increased resorption) and minor skeletal anomalies were observed at a dose of 300 mg/kg/day. One

study in lactating rats demonstrates that nilotinib is excreted into milk.

**STOT - single exposure** No information available.

**STOT - repeated exposure**Causes damage to organs through prolonged or repeated exposure if swallowed: Heart.

Liver. Gastrointestinal tract (GI).

Target Organ Effects Heart, Liver, Gastrointestinal tract (GI), Reproductive system.

**Neurological effects** No information available.

Other adverse effects

Tasigna prolongs the QT interval. Sudden deaths have been reported in patients receiving

nilotinib.

**Aspiration Hazard** No information available.

## **SECTION 12. Ecological information**

#### **Ecotoxicity**

Product does not present an aquatic toxicity hazard based on known or supplied information.

**Persistence and degradability Bioaccumulation**Not readily biodegradable.
No information available.

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

Octanol-Water Partition Coefficient
5.01

#### Other adverse effects

No information available.

## **SECTION 13. Disposal considerations**

#### Waste Disposal Methods

Should not be released into the environment.

### **Disposal considerations**

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

## **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

Chemical Name	TSCA 8(b)	TSCA 12(b)	DSL	NDSL
N-[3-[3-(1H-imidazolyl)propoxy] phenyl]-4-methyl-3-[[4-(3-pyridin yl)-2-pyrimidinyl]amino]benzami de		Not Listed	Not Listed	Not Listed

## Canadian Workplace Hazardous Materials Information System (WHMIS) Classification

<b>(</b>	Class D2A - Very Toxic Material at >= 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 No
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**

**Issuing Date:** 2015-01-15 **Revision Date:** 2015-01-15

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**