

**Ponatinib** 

Pan-Bcr-Abl and Multikinase Inhibitor

Catalog # A03-900

Lot # O3936-11 CAS # 943319-70-8

### **Product Description**

Molecular Formula: C<sub>29</sub>H<sub>27</sub>F<sub>3</sub>N<sub>6</sub>O Appearance: Yellow powder Molecular Weight: 532.6

Purity: >98% (HPLC); NMR (conforms)

Solubility: May be dissolved DMSO (50 mg/ml); ethanol

(25 mg/ml, warm)

### **Alias**

3-(2-Imidazo[1,2-b]pyridazin-3-ylethynyl)-4-methyl-N-[4-[(4-methyl-1-piperazinyl)methyl]-3-(trifluoromethyl)phenyl]-benzamide; AP-24534

### **Specific Activity**

Pan-Bcr-Abl and Multikinase Inhibitor

### Storage and Stability

Store desiccated as supplied at -20°C for up to 2 years. Store solutions at -20°C for up to 3 months.

# **Scientific Background**

Potent, broad inhibitor of Bcr-Abl and other tyrosine kinases: Bcr-Abl (IC $_{50}$ =0.37 nM) and its mutants T315l (IC $_{50}$ =2 nM), Q252H (IC $_{50}$ =0.44 nM), Y253F (IC $_{50}$ =0.3 nM), M351T (IC $_{50}$ =0.3 nM) and H396P (IC $_{50}$ =0.34 nM) (1). Also inhibits PDGFRa, c-Src and c-Kit (IC $_{50}$ =1.1, 5.4, and 12.5 nM) (2), and FGFR-mediated signaling (IC $_{50}$ <40 nM) (3). It reduces influenza A virus-induced death by suppressing the "cytokine storm" in mouse models (4).

### References

1. O'Hare T et al. Cancer Cell 2009 16:401

2. Gozgit JM et al. Mol. Cancer Ther. 2011 10:1028

3. Gozgit JM et al. Mol. Cancer Ther. 2012 11:690

4. Chen S et al. Front. Immunol. 2019 10:1393

Catalog # Aliquot Size
A03-900 5 mg

A03-900 25 mg

### **Molecular Structure**

# **Ponatinib**

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# SAFETY DATA SHEET

### Article 1 - Identification of the Substance

Product Name: Ponatinib Catalog # A03-900

This product is sold only for research use by qualified laboratory personnel, and is not to be used as a drug, medical device, food additive, cosmetic, nor household chemical. It is not to be used in diagnostic, therapeutic, consumer, agricultural, nor pesticidal applications.

Manufacturer's Name: SignalChem Biotech Inc.
Street Address: 110-13120 Vanier Place
City, Prov. Postal Code: Richmond, BC, V6V 2J2

Fax: 604-232-4601 EMERGENCY PHONE: 604-232-4600

### **Article 2 - Hazardous Identification**

#### 2.1 Classification of Substance (GHS)

Skin corrosion/irritation (Category 2), H315 Serious eye damage/eye irritation (Category 2A), H319

Specific target organ toxicity – single exposure (Category 3): Respiratory system, H335

### 2.2 Label Elements

Classification according to Regulation (EC) No 1272/2008



# GHS Signal Word: WARNING

**GHS Hazard Phrases:** 

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

### **GHS Precaution Phrases:**

P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+352	IF ON SKIN: Wash with plenty of soap and water.

### GHS Storage and Disposal Phrases:

Please refer to Section 7 for Storage and Section 13 for Disposal Information

2.3 Other hazards: To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

# Article 3 – Composition/Information on Ingredients

3.1 Substance

**Product Name(s):** Ponatinib

 $\textbf{Chemical Name:} \qquad \qquad 3-(2-\text{lmidazo}[1,2-\text{b}]pyridazin-3-\text{ylethynyl}]-4-\text{methyl-N-}[4-[(4-\text{methyl-1-piperazinyl})\text{methyl}]-3-(\text{trifluoromethyl})\text{phenyl}]-\text{benzamide}$ 

Molecular Formula: $C_{29}H_{27}F_3N_6O$ CAS Number:943319-70-8Concentration:100%

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# SAFETY DATA SHEET

### Article 4 - First Aid

#### 4.1 Description of First Aid Measures

General: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. If Inhaled: If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

In Case of Skin Contact: Wash with soap and plenty of water. Consult a physician.

In Case of Eye Contact: Flush eyes with water as a precaution.

If Swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. 4.2 Important Symptoms and Effects: The most important known symptoms and effects are described in section 2.2.

# Article 5 – Fire Fighting Measures

#### 5.1 Extinguishing Media

Use alcohol-resistant polymer foam, dry chemical or carbon dioxide.

#### 5.2 Special Hazards:

No data available.

#### 5.3 Precautions for Fire Fighters

Wear self-contained breathing apparatus for firefighting if necessary.

### Article 6 – Accidental Release Measures

#### 6.1 Personal Precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

#### **6.2 Environmental Precautions**

Do not let product enter drains.

#### 6.3 Methods for Containment and Clean-up

Pick up and arrange disposal without creating dust using wet towels for small quantities, for example. Keep in suitable, closed containers for disposal. Offer surplus and non-recyclable solutions to a licensed disposal company.

# **Article 7 – Handling and Storage**

### 7.1 Handling Precautions

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

### 7.2 Safe Storage Measures

Keep product tightly closed in a dry and well-ventilated place.

### **Article 8 – Exposure Controls/Personal Protection**

#### 8.1 Control Parameters

This product does not contain any hazardous materials with occupational exposure limits established by region-specific regulatory bodies.

### 8.3 Personal Protection

**Eye/Face Protection:** Tightly fitting safety goggles. Face shield.

Skin Protection: Use chemical resistant gloves. Remove and dispose of gloves properly after use. Wash hands thoroughly after use.

Body Protection: Wear a lab coat.

Respiratory Protection: Wear NIOSH / MSHA-approved respirator if required.

Personal Hygiene Measures: When using this product, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning equipment, work area and clothing.

# **Article 9 – Physical and Chemical Properties**

Appearance: Yellow powder Odour: data not available Odour Threshold: data not available

pH: data not available

Melting/Freezing Pt: data not available

Boiling Pt: data not available Flash Pt: data not available

Explosive Properties: data not available

Solubility notes: May be dissolved in DMSO (50 mg/ml); or ethanol (25 mg/ml, warm)

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# SAFETY DATA SHEET

## Article 10 - Stability and Reactivity

10.1 Stability: Stable under recommended transport or storage conditions

10.2 Conditions to Avoid: No data available.

10.3 Incompatibility - Materials to Avoid: Strong oxidizing agents.

10.4 Hazardous Decomposition Products: Carbon oxides, nitrogen oxides, hydrogen fluoride.

### **Article 11– Toxicological Information**

11.1 Toxicological Effects: The toxicological effects of this product have not been thoroughly studied.

# **Article 12 - Ecological Information**

#### 12.1 Toxicity

Avoid release into the environment.

12.2 Degradability

Data not available

# **Article 13 – Disposal Considerations**

### 13.1 Waste Treatment

Product and Contaminated Packaging: Dispose according to national legislation. Contact a licensed chemical disposal company.

### **Article 14 - Transport Information**

14.1 DOT

Not dangerous goods

14.2 IMDG

Not dangerous goods

14.2 IATA

Not dangerous goods

### **Article 15 – Regulatory Information**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

### Article 16 - Other Information

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. SignalChem shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalog for additional terms and conditions of sale.