Erlotinib HCl
Kinase Inhibitor

Catalog # E10-900C
Lot # T2257-53
CAS # 183319-69-9

Product Description

Molecular Formula: C_{22}H_{23}N_{3}O_{4} \cdot HCl
Appearance: White to off-white powder
Melting Point: N/A
Molecular Weight: 429.9
Purity: >98% (TLC); NMR (Conforms)
Solubilization: May be dissolved in DMSO (18 mg/ml, warm)

Alias

N-(3-ethynylphenyl)-6,7-bis(2-methoxyethoxy)quinazolin-4-amine, hydrochloride

Specific Activity

EGFR kinase inhibitor

Storage and Stability

Store desiccated as supplied at -20°C for up to 1 year.
Store solutions at -20°C for up to 3 months.

Scientific Background

Potent inhibitor of EGFR tyrosine kinase (IC_{50} = 2 nM) (1).
Potent inhibitor of mutant JAK2-V617F (2). Weaker inhibitor of ErbB-2 kinase (Ki = 1 µM) ErbB-4 kinase (Ki = 1.5 µM) (3).

References

1. JD Moyer et al. Cancer Res. 1997 57:4838
3. ER Wood et al. Cancer Res. 2004 64:6652

Molecular Structure

Erlotinib HCl
Kinase Inhibitor

Catalog Number E10-900C
CAS Number 183319-69-9
Specific Lot Number T2257-53
Purity >98% (TLC); NMR conforms
Format Lyophilized powder
Solubilization May be dissolved in DMSO (18 mg/ml, warm)
Storage & Shipping Store desiccated as supplied at -20°C for up to 1 year. Store solutions at -20°C for up to 3 months.

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MATERIAL SAFETY DATA SHEET

Article 1 – Identification of the Substance and of the Company/Undertaking

Product Name: Erlotinib HCl
Catalog #: E10-900C

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 Pharmaceuticals Inc.
Street Address: 550-5600 Parkwood Way
City, Prov. Postal Code: Richmond, BC, V6V 2M2
Fax: 604-232-4601
EMERGENCY PHONE: 604-232-4600

Article 2 – Hazardous Identification

2.1 Classification of Substance (GHS)
Skin Category 2
Eye Category 2A
Specific target organ toxicity - single exposure (Category 3)

2.2 Label Elements
Classification according to Regulation (EC) No 1272/2008

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<thead>
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<tbody>
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2.3 Other hazards
Data not available

Article 3 – Composition/Information on Ingredients

3.1 Substance
Product Name(s): Erlotinib HCl, N-(3-ethynylphenyl)-6,7-bis(2-methoxyethoxy)quinazolin-4-amine, hydrochloride
Molecular Formula: C_{22}H_{23}N_{3}O_{4}·HCl
CAS #: 183319-69-9

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4.1 Description of First Aid Measures

General: Move out of dangerous area and contact a doctor. Provide them with this data sheet.
If Inhaled: Move to fresh air, and monitor breathing. Give artificial respiration if breathing stops. Consult a doctor.
In Case of Skin Contact: Remove contaminated clothing. Wash with soap and water for an extended period of time. Consult a doctor.
In Case of Eye Contact: Immediately flush eye(s) with copious amounts of water for at least 15 minutes. Consult a doctor.
If Swallowed: Rinse out the mouth with water. Do not give anything by mouth. Consult a doctor.

4.2 Important Symptoms and Effects
Lung, skin and eye irritant. Prolonged exposure is not known to aggravate prior medical conditions.

Article 5 – Fire Fighting Measures

5.1 Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special Hazards
May emit toxic fumes.

5.3 Precautions for Fire Fighters
Wear suitable protection to prevent contact and respirator for fumes.

Article 6 – Accidental Release Measures

6.1 Personal Precautions
Relocate personnel to a safe area and ensure ventilation is in working order. Wear protective equipment. Avoid dust formation and inhalation of fumes.

6.2 Environmental Precautions
Do not let product enter drains.

6.3 Methods for Containment and Clean-up
Sweep up material without generating dust clouds and place in a sealed container for disposal. Clean surface where spill occurred.

Article 7 – Handling and Storage

7.1 Handling Precautions
Use in a well ventilated area. Avoid formation of dust or aerosols. Keep away from sources of ignition. Wear suitable protective clothing. Avoid inhalation, and skin or eye contact.

7.2 Safe Storage Measures
Keep product in a sealed container located in dry well ventilated area.

Article 8 – Exposure Controls/Personal Protection

8.1 Control Parameters
Contains no substances with occupational exposure limit values.

8.2 Specific Engineering Controls
Keep airborne levels low by using a fume hood or local exhaust.

8.3 Personal Protection
Eye/Face Protection: Use safety glasses.
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: If risk is present wear a dust respirator.

Article 9 – Physical and Chemical Properties

Appearance: White to off-white 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

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**Flash Pt:** data not available  
**Explosive Properties:** data not available

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**Article 10 – Stability and Reactivity**

10.1 Stability  
Stable under recommended transport or storage conditions  

10.2 Conditions to Avoid  
Moist and hot conditions  

10.3 Hazardous Decomposition Products  
Carbon oxides (CO, CO₂). Possible toxic fumes upon combustion.

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**Article 11 – Toxicological Information**

11.1 Toxicological Effects  

**Acute Toxicity:** data not available  
**Skin Corrosion/Irritation:** data not available  
**Eye Damage/Irritation:** data not available  
**Respiratory or Skin Sensitization:** data not available  
**Germ Cell Mutagenicity:** data not available  
**Carcinogenicity:** None according to NIOSH

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**Article 12 – Ecological Information**

12.1 Toxicity  
Data not available  

12.2 Degradability  
Data not available

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**Article 13 – Disposal Considerations**

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

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**Article 14 – Transport Information**

14.1 DOT  
Not dangerous  

14.2 IMDG  
Not dangerous  

14.2 IATA  
Not dangerous

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**Article 15 – Regulatory Information**

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

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**Article 16 – Other Information**

Copyright 2013 SignalChem Pharmaceuticals. This company shall not be held liable for any damage resulting from handling or from contact with the above product. This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all inclusive and should be used as a guide only for experienced personnel. Always consult your safety advisor and follow appropriate safety legislature. The absence of warning must not, under any circumstance, be taken to mean that no hazard exists.

Prepared by: Jun Yan  
Phone#: 1-866-954-6273

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