

Gefitinib (ZD1839) SDS | MSDS

1.PRODUCT AND COMPANY IDENTIFICATION

Product identifier

- **Product Name:** Gefitinib (ZD1839)
- **Catalog Number:** S1025
- **CAS Number:** 184475-35-2
- **IUPAC Name:** N-(3-chloro-4-fluorophenyl)-7-methoxy-6-(3-morpholinopropoxy)quinazolin-4-amine

Relevant identified uses and uses advised against

- **Identified uses:** For research and development use only; laboratory chemicals; manufacture of substances.
- **Uses advised against:** Not for pharmaceutical, household, or other unapproved uses.

Details of the supplier

- **Company :** Selleck Chemicals
- **TollFree :** +1 877 796-6397
- **Tel :** +1 832 582-8158
- **Fax :** +1 832 582-8590

Emergency telephone number

- **Emergency phone #:** +1 832 582-8158

2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

- Acute toxicity (Oral): Category 4
- Skin irritation: Category 2
- Serious eye damage: Category 1
- Carcinogenicity: Category 2
- Reproductive toxicity: Category 1B
- Specific target organ toxicity - repeated exposure (Oral): Category 2
- Short-term (acute) aquatic hazard: Category 2
- Long-term (chronic) aquatic hazard: Category 1

GHS label elements

Pictogram:



Signal word: Danger

Hazard statements:

- H302: Harmful if swallowed.
- H315: Causes skin irritation.
- H318: Causes serious eye damage.
- H351: Suspected of causing cancer.
- H360: May damage fertility or the unborn child.
- H373: May cause damage to organs through prolonged or repeated exposure if swallowed.
- H401: Toxic to aquatic life.
- H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:

• **Prevention:**

- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P260: Do not breathe powder.
- P264: Wash 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.

• **Response:**

- P301 + P312 + P330: IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
- P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
- P305 + P351 + P338 + P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
- P308 + P313: IF exposed or concerned: Get medical advice/ attention.
- P332 + P313: If skin irritation occurs: Get medical advice/ attention.
- P362: Take off contaminated clothing and wash before reuse.
- P391: Collect spillage.

• **Storage:**

- P405: Store locked up.

• **Disposal:**

- P501: Dispose of contents/ container to an approved waste disposal plant.

Other hazards:

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

- **Substance / Mixture:** Substance
- **CAS-No.:** 184475-35-2
- **Components:**
 - **Chemical name:** Gefitinib
 - **CAS No.:** 184475-35-2
 - **Concentration (% w/w):** $\geq 90 - \leq 100\%$
 - **Note:** Actual concentration is withheld as a trade secret.

4. FIRST AID MEASURES

- **General advice:** Show this safety data sheet to the doctor in attendance.
- **If inhaled:** After inhalation: fresh air. Call in physician.
- **In case of skin contact:** Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.
- **In case of eye contact:** After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
- **If swallowed:** After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
- **Most important symptoms and effects, both acute and delayed:** The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.
- **Protection of first-aiders:** For personal protection see section 8.
- **Notes to physician:** N/A.

5. FIREFIGHTING MEASURES

- **Suitable extinguishing media:** Water, Foam, Carbon dioxide (CO₂), Dry powder.
- **Unsuitable extinguishing media:** For this substance/mixture no limitations of extinguishing agents are given.
- **Specific hazards during fire fighting:** Combustible. Development of hazardous combustion gases or vapours possible in the event of fire.
- **Hazardous combustion products:** Carbon oxides, Nitrogen oxides (NO_x), Hydrogen chloride gas, Hydrogen fluoride.
- **Specific extinguishing methods:** N/A.
- **Further information:** Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.
- **Special protective equipment for fire-fighters:** Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions, protective equipment and emergency procedures:**

- Advice for non-emergency personnel: Avoid inhalation of powder. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
- Advice for emergency responders: For personal protection see section 8.

- **Environmental precautions:** Do not let product enter drains.

- **Methods and materials for containment and cleaning up:** Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of powder.

7. HANDLING AND STORAGE

- **Advice on safe handling:** Work under hood. Do not inhale substance/mixture. For precautions see section 2.

- **Further information on storage conditions:** Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.

- **Storage class:** 6.1C, Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects.

- **Recommended storage temperature:** See product label.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- **Ingredients with workplace control parameters:** Contains no substances with occupational exposure limit values.

- **Engineering measures:** N/A.

- **Personal protective equipment:**

- **Respiratory protection:** Required when powder is generated. Recommended Filter type: Filter type P3 (based on DIN EN 143, DIN 14387).

- **Hand protection:** Nitrile rubber gloves (Full and splash contact: 0.11 mm thickness, > 480 min breakthrough time, e.g., KCL 741 Dermatrill L). Handle with impervious gloves.

- **Eye protection:** Tightly fitting safety goggles tested and approved under standards such as NIOSH (US) or EN 166 (EU).

- **Skin and body protection:** Protective clothing.

- **Hygiene measures:** Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance:** powder

- **Color:** white, yellow

- **Odor:** N/A

- **Odor Threshold:** N/A

- **pH:** N/A

- **Melting point/range:** 381 - 388 °F / 194 - 198 °C

- **Boiling point/boiling range:** 1088.2 °F / 586.8 °C
- **Flash point:** N/A
- **Evaporation rate:** N/A
- **Flammability (solid, gas):** N/A
- **Flammability (liquids):** N/A
- **Burning rate:** N/A
- **Upper/Lower explosion limit:** N/A
- **Vapor pressure:** N/A
- **Relative vapour density:** N/A
- **Relative density:** N/A
- **Density:** 1.32 g/cm³
- **Water solubility:** N/A
- **Partition coefficient: n-octanol/water:** N/A
- **Autoignition temperature:** N/A
- **Decomposition temperature:** N/A
- **Viscosity, dynamic/kinematic:** N/A
- **Flow time:** N/A
- **Explosive properties:** N/A
- **Oxidizing properties:** N/A
- **Molecular weight:** 446.90 g/mol
- **Particle size:** N/A

10. STABILITY AND REACTIVITY

- **Reactivity:** The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a powder explosion potential may generally be assumed.
- **Chemical stability:** The product is chemically stable under standard ambient conditions (room temperature).
- **Possibility of hazardous reactions:** N/A.
- **Conditions to avoid:** No information available.
- **Incompatible materials:** Strong oxidizing agents.
- **Hazardous decomposition products:** In the event of fire: see section 5.

11. TOXICOLOGICAL INFORMATION

- **Acute toxicity:** Oral, Inhalation, and Dermal: N/A.
- **Skin corrosion/irritation:** Remarks: May irritate skin (External MSDS).
- **Serious eye damage/eye irritation:** Remarks: Causes serious eye damage (External MSDS).
- **Respiratory or skin sensitization:** N/A.
- **Germ cell mutagenicity:** In vitro and in vivo tests did not show mutagenic effects.

- **Carcinogenicity:** Suspected of causing cancer. Long-term feeding studies in rats and mice revealed an increased incidence of tumours in different target organs. No component is identified as a known or anticipated carcinogen by IARC, NTP, or OSHA.
- **Reproductive toxicity:** Suspected of damaging the unborn child. May damage fertility.
- **Specific target organ toxicity - single exposure:** N/A.
- **Specific target organ toxicity - repeated exposure:** Oral - May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard:** N/A.
- **Additional Information:** To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

- **Ecotoxicity (Gefitinib):**
 - **Toxicity to fish:** NOEC (Pimephales promelas): 0.032 mg/l (32 d).
 - **Toxicity to daphnia and other aquatic invertebrates:** EC50 (Daphnia): 3.1 mg/l (48 h); NOEC (Daphnia): 0.52 mg/l (21 d).
 - **Toxicity to algae/aquatic plants:** ErC50 (Selenastrum capricornutum): > 2.2 mg/l (72 h).
 - **M-Factor (Chronic aquatic toxicity):** 1.
 - **Toxicity to microorganisms:** NOEC (Sewage sludge): > 100 mg/l (3 h).
 - **Ecotoxicology Assessment:** Very toxic to aquatic life with long lasting effects.
- **Persistence and degradability:** Not readily biodegradable (Biodegradation: < 5 % over 28 d).
- **Bioaccumulative potential:** Bioaccumulation is unlikely.
- **Mobility in soil:** N/A.
- **Other adverse effects:** N/A.

13. DISPOSAL CONSIDERATIONS

- **Disposal methods:** Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

14. TRANSPORT INFORMATION

- **International Regulations (IATA-DGR):**
 - **UN/ID No.:** UN 3077
 - **Proper shipping name:** Environmentally hazardous substance, powder, n.o.s. (Gefitinib)
 - **Class:** 9
 - **Packing group:** III
 - **Labels:** Class 9 - Miscellaneous dangerous substances and articles
- **International Regulations (IMDG-Code):**
 - **UN number:** UN 3077

- **Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, powder, N.O.S. (Gefitinib)
- **Class:** 9
- **Packing group:** III
- **Labels:** 9
- **Marine pollutant:** yes
- **National Regulations (49 CFR Road):** Not regulated as a dangerous good.
- **Poison Inhalation Hazard:** No.
- **Special precautions for user:** EHS-Mark required for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for powder. Packages smaller than or equal to 5 kg / L are not dangerous goods of Class 9.

15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 : Acute Health Hazard

Hazards

SARA 313 : This material does not contain any chemical

components with known CAS numbers that exceed the

threshold (De Minimis) reporting levels established by

SARA Title III, Section 313.

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

The components of this product are reported in the following inventories:

TSCA : Product contains substance(s) not listed on TSCA

inventory.

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

16. OTHER INFORMATION

Revision Date: 2026/07/10

Further Information: The information provided is believed to be correct but is not exhaustive and should be used only as a guideline based on current knowledge. It does not represent a guarantee of the properties of the product. Selleck Chemicals Corporation and its Affiliates shall not be held liable for any damage resulting from handling or contact with the product.