1 - Identification of substance and manufacturer
Axon catalogue ID 2354
Product name Linagliptin
IUPAC name (R)-8-(3-Aminopiperidin-1-yl)-7-(but-2-ynyl)-3-methyl-1-((4-methylquinazolin-2-yl)methyl)-1H-purine-2,6(3H,7H)-dione
Hazardous ingredient Linagliptin 668270-12-0

2 - Hazards identification
Route of entry Eye contact, Inhalation, Digestion
Symptoms of Exposure May be harmful by inhalation, ingestion or eye and/or skin absorption. May cause irritation to eye, mucous membranes, upper respiratory system, and/or skin. The toxicological properties of this compound have not been fully tested. For research purposes only.

3 - Information on ingredients
Hazardous ingredient CAS number Concentration LD-50 of ingredient Linagliptin 668270-12-0 99.6% No data available

4 - First Aid Measures
Skin contact Wash with copious amounts of water for at least 15 minutes. Remove contaminated clothing.
Eye contact Rinse with copious amounts of water for at least 15 minutes as a precaution.
Inhalation Transfer victim to an un-effected area and monitor breathing. If breathing becomes difficult administer oxygen. If breathing stops give artificial respiration.
Ingestion Rinse mouth out with copious amounts of water, contact a physician.

5 - Fire Fighting Measures
Fire fighting instructions Use extinguishing media appropriate to the surrounding fire conditions. Wear protective clothing to prevent contact with skin, eyes, and respiratory system.
Inflammability Flamable No data available
Flashpoint (°C) No data available
Hazardous combustion products May emit toxic gasses like carbon monoxide (CO), carbon dioxide (CO2), hydrochloric acid (HCl), nitrogen oxide upon thermal decomposition.

6 - Accidental Release Measures
Leak and spill procedures Wear appropriate protective clothing. Vacuum or sweep up dry material and dispose in an appropriate container as described under Disposal Conditions. Avoid raising dust. Absorb solutions with finely-powdered liquid-binding material. After removal, ventilate and decontaminate surfaces and equipment with alcohol. Dispose of contaminated materials in accordance with local, state, and federal regulations.

7 - Handling and Storage
Handling procedures and equipment Store in a properly sealed container under the storage conditions indicated on the label. Wear appropriate protective clothing. Avoid inhalation, contact with eyes, skin and clothing. Wear appropriate protective clothing. Avoid repeated and/or prolonged exposure. Use in a chemical fume hood, with an independent air supply. Avoid inhalation, contact with eyes, skin and clothing. Wear appropriate protective clothing. Avoid repeated and/or prolonged exposure. Use in a chemical fume hood, with an independent air supply. Avoid inhalation, contact with eyes, skin and clothing. Wear appropriate protective clothing. Avoid repeated and/or prolonged exposure. Use in a chemical fume hood, with an independent air supply.
Storage requirements

8 - Exposure Control / Personal Protection
Exposure limits No data available
Protection of hands/skin Chemical resistant gloves and lab coat
Protection of eyes Appropriate safety glasses
Protection of respiratory system Handle in fume hood. Prevent inhalation.

9 - Physical and chemical properties
Batch molecular formula C25H28N8O2.0.75H2O
 appearence White solid
 batch MW 486.05
 melting point 205 - 207 °C
 chemical purity 99.6%
 optical purity (ee) N.A.
 solubility in water (mg/mL) 0.0

10 - Stability and reactivity
Stability Stable under normal handling conditions.
Reactivity May emit toxic gasses like carbon monoxide (CO), carbon dioxide (CO2), hydrochloric acid (HCl), nitrogen oxide upon thermal decomposition.
Conditions and materials to avoid Protect from light and heat. Avoid strong oxidizing agents.

11 - Toxicological information
Toxicity No data available Carcinogenicity No data available Mutagenicity No data available Teratogenicity No data available

12 - Ecological information
Treat as potentially toxic. Runoff from fire control or dilution with water may cause pollution.

13 - Disposal considerations
Treat as potentially toxic. Dispose in accordance with local, state, and federal regulations.

14 - Transport Information
US EPA DOT shipping name IATA class Applicable HS class Transportation (Land/Sea/Air)
Linagliptin 668270-12-0 No data available 2942.00.0000 Non-hazardous

15 - Regulatory information
Hazardous ingredient CAS number European risk and saftey phrases
Linagliptin 668270-12-0
US EPA SARA Title III US EPA CAA, CWA, TSCA
R48: Danger of serious damage to health by prolonged exposure. Sec.302 (EHS) - No EPA CAA - No
S22 - Do not breathe dust. Sec.302 (EHS) - No EPA CWA NPDES - No
S24/S25 - Avoid any inhalation, contact with skin and eyes. Sec.313 (TRI) - No EPA TSCA - No
S36/S37/S39 - Wear suitable protective clothing, gloves and eye/face protection. Sec.110 - No
S37 - Use protective clothing and eye/face protection. Sec.110 - No
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

16 - Other information
The above information is believed to be accurate and represents the best information currently available to us, but does not purport to be complete. The absence of warning must not, under any circumstance, be taken to mean that no hazard exists. For research use only by trained personnel.

CAUTION: SUBSTANCE NOT FULLY TESTED