Safety Data Sheet (SDS)

Section 1: Identification

1.1 Product Identification

• Product Name: Letrozole

• Product Number: Sigma-1492025168

• Brand: Sigma

• CAS Number: 112809-51-5

• EC Number: Not specified

• Molecular Formula: C17H11N5

• Molecular Weight: 285.3 g/mol

• Website: Sigma Chemical

1.2 Supplier Details

• Company Name: Sigma Chemical Co., Ltd.

• Address: Room 2-1-2301, Jiahe Xinxing, No.130, Shandong Road, Shibei District, Qingdao City, Shandong Province, China

• Phone Number: +8618661891880

• Email: chemweb3@foxmail.com

• Business Hours:

– Monday to Friday: 9:00 AM - 6:00 PM

– Saturday: 9:00 AM - 1:00 PM

– Sunday: Closed

1.3 Emergency Contact Number

• Emergency Contact: +8618661891880

1.4 Recommended Use and Restrictions

• Recommended Use: For research and development purposes only. Not for use as a drug, household product, or other.

Section 2: Hazard Identification

2.1 GHS Classification

• Reproductive toxicity: Category 2, H361 (Suspected of damaging fertility or the unborn child)

• Specific Target Organ Toxicity (Repeated Exposure): Category 2, H373 (May cause damage to organs through prolonged or repeated exposure)

2.2 GHS Label Elements

• Pictogram: Health Hazard

• Signal Word: Warning

• Hazard Statements:

– H361: Suspected of damaging fertility or the unborn child

– H373: May cause damage to organs through prolonged or repeated exposure

• 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 dust/fume/gas/mist/vapours/spray

• P280: Wear protective gloves/protective clothing/eye protection/face protection

– Response:

• P308 + P313: IF exposed or concerned: Get medical advice/attention

– Storage:

• P405: Store locked up

– Disposal:

• P501: Dispose of contents/container in accordance with local/regional/national/international regulations

2.3 Physical and Chemical Hazards

• Physical and Chemical Hazards: Combustible. Development of hazardous combustion gases or vapours possible in the event of fire.

2.4 Health Hazards

• Health Hazards:

– H361: Suspected of damaging fertility or the unborn child

– H373: May cause damage to organs through prolonged or repeated exposure

2.5 Environmental Hazards

• Environmental Hazards: No environmental hazards identified based on current information.

Section 3: Composition/Information on Ingredients

3.1 Substance

• Synonyms: 4,4'-(1H-1,2,4-Triazol-1-ylmethylene)dibenzonitrile, CGS 20267, Femara, Letrozol, Letrozolum

• Molecular Formula: C17H11N5

• Molecular Weight: 285.3 g/mol

• CAS Number: 112809-51-5

• EC Number: Not specified

• Hazardous Components:

– Component: Letrozole

– Classification:

• Reproductive toxicity: Category 2, H361

• Specific Target Organ Toxicity (Repeated Exposure): Category 2, H373

Section 4: First Aid Measures

4.1 First Aid Measures

• Inhalation: After inhalation: fresh air. Call in physician.

• Skin Contact: In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Consult a physician.

• Eye Contact: After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

• Ingestion: After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most Important Symptoms and Effects

• Symptoms: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Immediate Medical Attention and Special Treatment

• Medical Treatment: No data available.

Section 5: Firefighting Measures

5.1 Extinguishing Media

• Suitable Extinguishing Agents: Water, Foam, Carbon dioxide (CO2), Dry powder

5.2 Specific Hazards Arising from the Chemical

• Hazardous Combustion Products: Carbon oxides, Nitrogen oxides (NOx)

5.3 Firefighting Precautions

• Protective Equipment: Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Section 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

• Personal Precautions: Advice for non-emergency personnel: Avoid inhalation of dusts. 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.

6.2 Methods and Materials for Containment and Clean-Up

• Containment: Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.3 Reference to Other Sections

• Other Sections: See Section 8 for personal protection equipment and Section 13 for disposal information.

Section 7: Handling and Storage

7.1 Handling Precautions

• Handling: Work under hood. Do not inhale substance/mixture. For precautions see section 2.2.

7.2 Storage Conditions

• Storage: Tightly closed. Dry. Keep locked up or in an area accessible only to qualified or authorised persons. Recommended storage temperature: 2 - 8 °C. Storage class: 11, Combustible Solids.

Section 8: Exposure Controls/Personal Protection

8.1 Control Parameters

• Exposure Limits: Contains no substances with occupational exposure limit values.

8.2 Exposure Controls

• Engineering Measures: No data available.

• Personal protective equipment: Respiratory protection: required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P3. The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

• Eye/face protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.

• Skin and body protection: protective clothing.

• Hand protection: Material: Nitrile rubber, Break through time: 480 min, Glove thickness: 0.11 mm, Protective index: Full contact, Manufacturer: KCL 741 Dermatril® L. This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

• Hygiene measures: Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

Section 9: Physical and Chemical Properties

• Appearance: powder

• Color: white

• Odor: No data available

• Odor Threshold: No data available

• pH: No data available

• Melting point/range: 181 - 183 °C

• Boiling point/boiling range: No data available

• Flash point: Not applicable

• Evaporation rate: No data available

• Flammability (solid, gas): No data available

• Flammability (liquids): No data available

• Burning rate: No data available

• Upper explosion limit / Upper flammability limit: No data available

• Lower explosion limit / Lower flammability limit: No data available

• Vapor pressure: No data available

• Relative vapour density: No data available

• Relative density: No data available

• Density: No data available

• Solubility(ies) Water solubility: No data available

• Solubility in other solvents: 50 g/l soluble, Solvent: dimethyl sulfoxide

• Partition coefficient: n-octanol/water: log Pow: ca. 0.4 (25 °C), Method: (calculated), Bioaccumulation is not expected.

• Autoignition temperature: No data available

• Decomposition temperature: No data available

• Viscosity, dynamic: No data available

• Viscosity, kinematic: No data available

• Flow time: No data available

• Explosive properties: No data available

• Oxidizing properties: none

• Molecular weight: 285.30 g/mol

• Particle characteristics Particle size: No data available

Section 10: Stability and Reactivity

• Reactivity: The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

• Chemical stability: The product is chemically stable under standard ambient conditions (room temperature).

• Possibility of hazardous reactions: No data available

• Conditions to avoid: no information available

• Incompatible materials: Strong oxidizing agents

• Hazardous decomposition products: In the event of fire: see section 5

Section 11: Toxicological Information

11.1 Information on toxicological effects

• Acute toxicity Oral: No data available, Inhalation: No data available, Dermal: No data available

• Skin corrosion/irritation: No data available

• Serious eye damage/eye irritation: No data available

• Respiratory or skin sensitization: No data available

• Germ cell mutagenicity: No data available

• Carcinogenicity: No data available

• Reproductive toxicity: Suspected of damaging the unborn child. Suspected of damaging fertility.

• Specific target organ toxicity - single exposure: No data available

• Specific target organ toxicity - repeated exposure: May cause damage to organs through prolonged or repeated exposure.

• Aspiration hazard: No data available

11.2 Additional Information

• RTECS: DI4957000. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information

• Ecotoxicity: No data available

• Persistence and degradability: No data available

• Bioaccumulative potential: Partition coefficient: n-octanol/water: log Pow: ca. 0.4 (25 °C), Method: (calculated), Remarks: Bioaccumulation is not expected.

• Mobility in soil: No data available

• Other adverse effects: No data available

Section 13: Disposal Considerations

• Disposal methods Waste from residues: Offer surplus and non-recyclable solutions to a licensed disposal company.

Section 14: Transport Information

• International Regulations

• IATA-DGR

• UN/ID No.: Not applicable

• Proper shipping name: Not applicable

• Class: Not applicable

• Subsidiary risk: Not applicable

• Packing group: Not applicable

• Labels: Not applicable

• Packing instruction (cargo aircraft): Not applicable

Section 15: Regulatory Information

• This safety datasheet complies with the requirements of GB/T 16483 and GB/T 17519.

• Inventory of Hazardous Chemicals (China): Not listed, but it meets the definition of hazardous chemicals and its principles of determination.

• Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218): Not listed

• Hazardous Chemicals for Priority Management under SAWS: Not listed

• Regulations on Labour Protection in Workplaces where Toxic Substances are Used

• Catalogue of Highly Toxic Chemicals: Not listed

• Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

• China Severely Restricted Toxic Chemicals for Import and Export: Not listed

• Measures on the Environmental Administration of New Chemical Substances Registration

• Registration/Notification number: B1A222212803, B1A222214480

• Downstream users need to comply with the conditions of safe use of the chemical, understand the environmental and health hazard and risk management measures identified on the SDS as well as the local/national regulations concerning the chemical.