1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** (-)-Eseroline fumarate
- **Article number:** ALX-550-345
- **CAS Number:** 104015-29-4
- **Relevant identified uses of the substance or mixture and uses advised against**
  - No further relevant information available.
- **Application of the substance / the preparation:** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Enzo Life Sciences, Inc.
    10 Executive Boulevard
    Farmingdale, NY 11735
    U.S.A.
    msds@enzolifesciences.com
- **Further information obtainable from:** Customer service
- **Emergency telephone number:** During normal opening times: +1 610-941-0430

2 Hazards identification

- **Classification of the substance or mixture**
  - **Classification according to Regulation (EC) No 1272/2008**
    - The substance is not classified according to the CLP regulation.
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC:** Not applicable.
- **Information concerning particular hazards for human and environment:** Not applicable.
- **Label elements**
  - **Labelling according to Regulation (EC) No 1272/2008:** Void
  - **Hazard pictograms:** Void
  - **Signal word:** Void
  - **Hazard statements:** Void
  - **Other hazards**
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization:** Substances
- **CAS No. Description:**
  - 104015-29-4 (-)-Eseroline fumarate
- **Identification number(s):** Not applicable

4 First aid measures

- **Description of first aid measures**
  - **General information:** No special measures required.
  - **After inhalation:** Supply fresh air; consult doctor in case of complaints.
  - **After skin contact:** Remove contaminated clothing.
  - **After eye contact:** Rinse opened eye for several minutes under running water.
  - **After ingestion:** If symptoms persist consult doctor.
Trade name: (-)-Eseroline fumarate

Information for doctor:
- Most important symptoms and effects, both acute and delayed
  No further relevant information available.
- Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

5 Firefighting measures

- Extinguishing media
  - Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
  - Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
  - Protective equipment:
    Wear self-contained respiratory protective device.
    Do not inhale explosion gases or combustion gases.
    Wear fully protective suit.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures:
  Avoid formation of dust.
  Wear protective clothing.
- Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up: Pick up mechanically.
- Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

- Handling:
  - Precautions for safe handling: No special measures required.
  - Information about fire - and explosion protection: No special measures required.
- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles:
    Store tightly sealed in a cool, dry and well ventilated location (see label for storage temperature and additional specific information).
  - Information about storage in one common storage facility:
    Keep away from heat, sources of ignition and incompatibles such as oxidizing agents.
- Further information about storage conditions:
  Store under lock and key and with access restricted to technical experts or their assistants only.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- Control parameters
- Ingredients with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists valid during the making were used as basis.
Trade name: (-)-Eseroline fumarate

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
  The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- **Protection of hands:**
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Due to missing tests no recommendation to the glove material can be given for the product/the preparation/the chemical mixture.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
  - Form: Solid
  - Colour: White
- **Odour:** Characteristic
- **Odour threshold:** Not determined.
- **pH-value:** Not applicable.
- **Change in condition**
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.
- **Flash point:** 309 °C
- **Flammability (solid, gaseous):** Product is not flammable.
- **Ignition temperature:**
  - Decomposition temperature: Not determined.
  - Self-igniting: Not determined.
  - Danger of explosion: Product does not present an explosion hazard.
- **Explosion limits:**
  - Lower: Not determined.
  - Upper: Not determined.
- **Vapour pressure:** Not applicable.
- **Density:** Not determined.
- **Relative density** Not determined.
- **Vapour density** Not applicable.
- **Evaporation rate** Not applicable.
- **Solubility in / Miscibility with water:** Soluble.
10 Stability and reactivity

- **Reactivity**
  - **Chemical stability:** Stable. Avoid strong oxidizing agents.
  - **Thermal decomposition / conditions to be avoided:**
    - No decomposition if used according to specifications.
  - **Possibility of hazardous reactions:** No dangerous reactions known.
  - **Conditions to avoid:** No further relevant information available.
  - **Incompatible materials:** No further relevant information available.
  - **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity**
    - **Primary irritant effect:**
      - **on the skin:** Not determined.
      - **on the eye:** Not determined.
  - **Sensitization:** No sensitizing effects known.
  - **Additional toxicological information:**
    - When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
    - The substance is not subject to classification according to the latest version of the EU lists.

12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
  - **Persistence and degradability:** No further relevant information available.
  - **Behaviour in environmental systems:**
    - **Bioaccumulative potential:** No further relevant information available.
    - **Mobility in soil:** No further relevant information available.
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.
  - **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation:** Smaller quantities can be disposed of with household waste.
### 14 Transport information

| · UN-Number | Not applicable |
| · UN proper shipping name | Not applicable |
| · Transport hazard class(es) | Not applicable |
| · Packing group | Not applicable |
| · Environmental hazards: Marine pollutant: | No |
| · Special precautions for user: | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: | Not applicable. |

### 15 Regulatory information

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. For research use only. Not for drug, household or other uses.

- **Department issuing MSDS:** Customer service
- **Contact:** tel. +1 610-941-0430
- **Abbreviations and acronyms:**
  - PP: Severe Marine Pollutant
  - GHS: Globally Harmonized System of Classification and Labelling of Chemicals
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)