

## 1- Identification of the substance/preparation and of the company/undertaking

- **PRODUCT NAME:** LL-Z 1272z from microbial source
- **PRODUCT NUMBER:** CL0034
- **CAS #:** 22738-98-3
- **SYNONYMS:** Illicolin F
- **MOLECULAR FORMULA:** C<sub>25</sub>H<sub>31</sub>ClO<sub>6</sub>
- **MOLECULAR WEIGHT:** 462.9 g/mol
- **DETAILS OF THE MANUFACTURER:**

**INSTITUTO BIOMAR, S.A.**  
PARQUE TECNOLÓGICO DE LEÓN PARCELA M10.4  
24009 ARMUNIA (LEÓN) SPAIN  
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## 2- Composition/information on ingredients

**Chemical characterization:** Substance

- **CAS No. Description:** 22738-98-3 LL-Z 1272z
- **Identification number(s):** Not applicable

## 3- Hazards identification

- **PHYSICAL/CHEMICAL HAZARDS:**
  - N/A
- **HUMAN HEALTH HAZARDS:**
  - Caution. May be harmful if inhaled, absorbed through skin or swallowed.
  - May cause irritation to eyes, mucous membranes, upper respiratory tract and skin.

## 4- First-aid measures

**Description of first aid measures**

- **AFTER INHALATION:**

- Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
- **AFTER INGESTION:**
  - Never give anything by mouth to an unconscious person. Get medical aid. Do not induce vomiting. If conscious and alert, rinse mouth with water.
- **AFTER SKIN CONTACT:**
  - In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
- **AFTER EYE CONTACT:**
  - Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
- **AFTER AGGRAVATING CONDITIONS:**
  - N/A

**Indication of any immediate medical attention and special treatment needed.**

**Indication of an antidote if applicable.**

## 5- Fire-fighting measures

- **FLAMMABILITY OF THE PRODUCT:**
  - N/A
- **EXTINGUISHING MEDIA:**
  - Use water spray, dry chemical, carbon dioxide or appropriate foam.
- **HAZARDOUS THERMAL (de) COMPOSITION PRODUCTS:**
  - In combustion, may emit toxic fumes.
- **SPECIAL FIRE-FIGHTING PROCEDURES:**
  - Use extinguishing media appropriate to surrounding fire conditions.
  - Wear protective clothing to prevent contact with skin and eyes.
- **PROTECTION OF FIRE-FIGHTERS:**
  - Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## 6- Accidental release measures

- **PERSONAL PRECAUTIONS PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:**
  - Use proper personal protective equipment. Avoid generating dusty conditions. Do not breathe dust, vapors, mist or gas. Provide ventilation. Evacuate personnel to safe areas.
- **SPILLS AND LEAKS**
  - Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

- Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container.
- **METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:**
  - Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete. For spill clean-up, wear suitable protective clothing, chemical resistant rubber gloves, rubber boots, and chemical safety goggles.

## 7- Handling and storage

- **HANDLING PRECAUTIONS FOR SAFE HANDLING:**
  - Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.
  - Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation.
- **CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:**
  - Store in a tightly closed container. Protect from light. Store in a cool, dry, well-ventilated area away from incompatible substances. Store at -20°C.

## 8- Exposures controls / personal protection

- **ENGINEERING MEASURES:**
  - Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits. If user operation generates dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
- **HYGIENE MEASURES**
  - Manipulate with all hygienic conditions and taking into consideration all security measures.
- **PERSONAL PROTECTIVE EQUIPMENT**
  - **Respiratory protection**
    - Use respirators and components tested and approved under appropriate government standards.
  - **Skin and body protection**
    - Handle with chemical resistant gloves. Choose the body protection according to the amount and concentration of the dangerous substance at the work place.
  - **Eyes Protection**
    - Wear appropriate protective eyeglasses or chemical safety goggles.

## 9- Physical and chemical properties

- **INFORMATION ABOUT BASIC PHYSICAL AND CHEMICAL PROPERTIES:**
- **APPEARANCE:** Solid
- **COLOR:** Yellowish
- **MOLECULAR WEIGHT:** 462.9
- **SOLUBILITY:** Soluble in ethanol, methanol, dichloromethane or DMSO.
- **FLASH POINT:** Not available.
- **EXPLOSIVE PROPERTIES:** Not determined.

## 10-Stability and reactivity

- **REACTIVITY:** Not determined
- **CHEMICAL STABILITY:** Stable under normal conditions
- **THERMAL DECOMPOSITION:** Not determined
- **CONDITIONS TO AVOID:** Heat, flames and sparks.
- **HAZARDOUS DECOMPOSITION PRODUCTS:** Not determined.
- **INCOMPATIBLE MATERIALS:** Not determined.

## 11-Toxicological information

- **RTECS#:**
  - N/A
- **ACUTE TOXICITY:**
  - N/A
- **CHRONIC TOXICITY:**
  - N/A
- **OTHER TOXIC EFFECTS ON HUMANS:**
  - N/A
- **CARCINOGENIC EFFECTS:**
  - N/A
- **MUTAGENIC EFFECTS:**
  - N/A
- **REPRODUCTION TOXICITY:**
  - N/A
- **POTENTIAL HEALTH EFFECTS**
  - **Inhalation:**
    - May be harmful if inhaled.
    - May cause respiratory tract irritation.
  - **Skin:**

- May cause skin irritation
- May be harmful absorbed through the skin.
- **Eyes:**
  - May cause eye irritation.
- **Ingestion:**
  - Harmful if swallowed.
- **Target Organs:**
  - N/A

## 12-Ecological information

- **ECOTOXICITY:**
  - N/A. Treat as potentially toxic if released into the environment.
- **TOXICITY OF THE PRODUCTS OF BIODEGRADATION:**
  - N/A

## 13-Disposal considerations:

- **METHODS OF DISPOSAL: WASTE OF RESIDUES, CONTAMINATED PACKAGING:**
  - Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations. Contaminated packaging must be disposed of as unused product.

## 14-Transport information

- **ADR/RID:**
  - Not controlled
- **IMDG:**
  - Not controlled
- **IATA:**
  - Not controlled

## 15-Regulatory information

### SYMBOL, ABBREVIATION AND DESCRIPTION OF HAZARD

N/A

### RISK PHRASES

N/A

### SAFETY PHRASES

S22 Do not breathe dust  
S24/25 Avoid contact with skin and eyes  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection

## 16-Other information

It is the user's responsibility to determine the suitability of this information for adoption of necessary safety precautions. ***This product is intended for research use only*** and should be handled and used only by experienced personnel. Instituto Biomar S.A shall not be held liable for any damage resulting from the use of this product.