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

- **PRODUCT NAME:** K-252a, from microbial source
- **PRODUCT NUMBER:** JU0109
- **CAS #:** 99533-80-9
- **SYNONYMS:** SF 2370, Staurosporine aglycone
- **MOLECULAR FORMULA:** $C_{27}H_{21}N_3O_5$
- **MOLECULAR WEIGHT:** 467.49 g/mol
- **DETAILS OF THE MANUFACTURER:**

INSTITUTO BIOMAR, S.A.
PARQUE TECNOLÓGICO DE LEÓNPARCELA M10.4
24009 ARMUNIA (LEÓN) SPAIN
TELF: +34987849200FAX: +34987849203
e-mail: info@biomarmt.com
www.biomarmt.com

2- Composition/information on ingredients

Antibiotic K-252a from microbial source

3- Hazards identification

- **PHYSICAL/CHEMICAL HAZARDS:**
  - N/A
- **HUMAN HEALTH HAZARDS:**
  - May cause irritation to eyes, mucous membranes, upper respiratory tract and skin.

4- First-aid measures

Description of first aid measures

- **AFTER INHALATION:**
  - If inhaled, removed to fresh air. If no breathing, give artificial respiration. If breathing is difficult, give oxygen. If any of the above occurs, seek medical attention immediately.

- **AFTER INGESTION:**
  - If swallowed, wash out mouth with water if person is conscious. Never give anything by mouth to an unconscious person. Call a physician immediately.
- **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.
- **AFTER EYE CONTACT:**
  - Flush eyes with plenty of water for at least 15 minutes and seek medical advice.
- **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:**
  - These products are carbon oxides (CO, CO_2), nitrogen oxides (NO, NO_2).
- **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 aereas.
- **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:**
  - Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.
- **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 -20ºC.

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.
  - Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the products.
- **PERSONAL PROTECTIVE EQUIPMENT**
  - **Respiratory protection**
    - Use respirators and components tested and approved under appropriate government standards. Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use appropriate dust masks.
  - **Skin and body protection**
    - Handle with appropriate chemical resistant gloves.
    - Lab coat. 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 satety goggles.

9- Physical and chemical properties

- **PHYSICAL STATE:**
  - Powder
- **COLOR:**
  - White to pale yellow
- **MOLECULAR WEIGHT:**
  - 467.49
- **SOLUBILITY:**
  - Soluble in chloroform, ethyl acetate, acetone, MeOH, DMSO.
  - Insoluble in n-hexane, diethyl ether, water.
- **MELTING POINT:**
  - For batch specific information, please see CoA (certificate of analysis).
- **EXPLOSIVE PROPERTIES:**
  - Risk of explosion of the product in presence of mechanical impact. Not available.
  - Risk of explosion of the product in presence of static discharge. Not available.

10-Stability and reactivity

- **STABILITY:**
  - Stable under recommended storage conditions.
- **REACTIVITY:**
  - N/A
- **CHEMICAL STABILITY:**
  - N/A
- **THERMAL DECOMPOSITION:**
  - N/A
- **INCOMPATIBILITIES**
  - Incompatible materials, excess heat, strong oxidizing agents.
  - Protect from light. Protect from heat. Protect from moisture.
  - Strong acids, strong bases.
- **HAZARDOUS DECOMPOSITION PRODUCTS:**
  - Carbon monoxide, carbon dioxide, nitrogen oxides.

11-Toxicological information

- **RTECS#:**
  - KC6500000
    See actual entry in RTECS for complete information.

- **ACUTE TOXICITY:**
  - Mouse, intraperitoneal: >300mg/kg (Journal of Antibiotics, Vol. 38, 1437, 1985).
- **CHRONIC TOXICITY:**
  - N/A
- **OTHER TOXIC EFFECTS ON HUMANS:**
  - May cause irritation to eyes, mucous membranes, upper respiratory tract and skin.
- **CARCINOGENIC EFFECTS:**
  - N/A
- **MUTAGENIC EFFECTS:**
  - N/A
- **REPRODUCTION TOXICITY:**
  - N/A
- **POTENTIAL HEALTH EFFECTS**
  - **Inhalation:**
    - Material may be irritating to mucous membranes and upper respiratory tract.
  - **Skin:**
    - May cause skin irritation
  - **Eyes:**
    - Causes serious eye irritation
  - **Ingestion:**
    - May be harmful if swallowed
  - **Target Organs:**
    - Eyes; Respiratory system; Skin

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: WATE OF RESIDUES, CONTAMINATED PACKAGING:**
  - Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state and local environmental regulations. Contaminated packaging must be disposed of as unused product.

14-Transport information

- **ADR/RID:**
  - non-hazardous for transport
- **IMDG:**
  - non-hazardous for transport
- **IATA:**
  - non-hazardous for transport
- **This substance is considered to be not hazardous for transport.**

15-Regulatory information

SYMBOL, ABBREVIATION AND DESCRIPTION OF HAZARD

Caution: Substance not yet fully tested.

RISK PHRASES

SAFETY PHRASES

S22	Do not breathe dust
S24/25	Avoid contact with skin and eyes
S26	In case of contact with eyes rinse immediately with water and seek medical advise
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.