

MATERIAL SAFETY DATA SHEET

707545

Section 1 – Company and Material Identification

COMPANY IDENTIFICATION

Kosan Biosciences, Inc
3832 Bay Center Place
Hayward, CA 94545-3619

In case of Emergency, contact: 510-732-8400

MATERIAL IDENTIFICATION

Common Name: Geldanamycin Analog, 17-DMAG
Chemical Name: 17-(2-Dimethylaminoethyl)amino-17-demethoxygeldanamycin, KOS-1022
Molecular Formula: C₃₂H₄₈N₄O₈
Synonyms: 17-DMAG, KOS-1022

Section 2 – Product Composition

<u>Substance</u>	<u>CAS No.</u>	<u>% (by wt)</u>
KOS-1022	Not available	>95%

Section 3 – Health Hazards

WARNING STATEMENT

CAUTION: Pharmaceutical compound for research purposes only. The compound is being provided in restricted quantity for use only by technically qualified individuals knowledgeable in the handling of potentially hazardous or potent pharmaceutical chemicals. The toxicity and potency of this chemical are not fully known. It is anticipated that the compound may cause adverse effects on the gastrointestinal tract, liver, decreased white blood counts (all forms of cells) and reticulocytes (a type of red blood cell). Avoid inhalation, ingestion, skin contact and eye contact.

Emergency Overview

Unknown.

HMIS and NFPA Rating

Health: 2 Flammability: 0 Reactivity: 0

Occupational Exposure Limit

None currently established by OSHA, NIOSH, ACGIH or Kosan Biosciences.

For additional information, please refer to Section 11.

Section 4 – First Aid Precautions

Eye Contact

Immediately flush eyes thoroughly with water for at least 15 minutes and notify medical personnel and supervisor.

Skin Contact

Immediately wash thoroughly with soap and water for 15 minutes. Remove contaminated clothing and shoes. If an irritation develops, contact medical personnel and notify supervisor.

Inhalation

Immediately move to fresh air and notify medical personnel and supervisor.

Ingestion

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Section 5 – Fire Protection

Flammability/Explosivity

As a solid, not considered flammable. No explosivity data available. High concentrations of airborne finely divided organic particulates can potentially explode if ignited.

Extinguishing Media

Use water fog or fire extinguishing media suitable for Class A fires (e.g., multipurpose dry chemical or foam).

Special Fire Fighting Procedures

Wear full structural fire fighting protective clothing and NIOSH/MSHA-approved positive pressure, self-contained breathing apparatus. Decontaminate after use. May emit toxic fumes under fire conditions.

Section 6 – Spill and Release Measures

If material is released or spilled, cordon off spill area. Take proper precautions to minimize exposure by using appropriate personal protective equipment. For small spills (such as in a laboratory), soak up material with absorbent, e.g., paper towels, and wash spill area thoroughly with soap and water. For

large spills in manufacturing, use an industrial vacuum cleaner equipped with a high efficiency particulate (HEPA) filter. Dispose of collected material in accordance with applicable waste disposal regulations.

Section 7 – Handling and Storage

Avoid contact with skin, eyes or clothing. Store in a well-ventilated area away from sources of ignition and incompatibles. Wash thoroughly after handling.

Keep tightly closed. Store in a cool, dry place.

Section 8 – Exposure Control/Personal Protection

Eye Protection

Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face.

Respiratory Protection

When possible, handle material in enclosed processes or containers. For laboratory operations, when feasible, handle in a powders weighing hood or ventilated balance enclosure. In the laboratory, if it is properly handled with effective local exhaust ventilation or containment, respiratory protection may not be needed.

For procedures involving larger quantities (grams to kilograms) or dust-generating procedures such as weighing, charging, milling, or blending, an air-purifying respirator or supplied air respirator with NIOSH/MSHA approval for dusts and mists may be needed.

Skin Protection

Rubber gloves are recommended to minimize potential for skin contact when handling in dry form or in aqueous solutions. When the material is dissolved in an organic solvent, wear gloves that provide protection against the solvent. Wear lab coat or other protective overgarment. Base the choice of protection on the job activity and potential for skin contact.

Engineering Controls

When practicable, handle material in enclosed processes or in processes with effective local exhaust ventilation.

Other

Wash hands, face and other potentially exposed areas immediately after handling material (especially before eating, drinking, or smoking). Decontaminate all protective equipment after use.

Section 9 – Physical/Chemical Properties

Appearance/color:	Purple solid
Molecular Weight:	616.76
pH:	N/A
Boiling Point:	No data available
Melting Point:	Not available (> 100 °C)
Vapor Pressure:	Negligible
Solubility in Water:	1.0 mg/mL in water
Evaporation Rate:	Negligible
Specific Gravity:	No data available.
Vapor Density:	Negligible
Percent Volatile:	Negligible

Section 10 – Stability/Reactivity

Stability:	Stable.
Incompatibility:	
Hazardous Polymerization:	
Hazardous Decomposition Products:	

Section 11 – Toxicological Information

Target Organ(s) or System(s)

Liver, gastrointestinal tract, kidney, bone marrow.

Signs and Symptoms of Exposure

Exposure can cause: unknown.

Toxicity data

Repeated dose studies: Rat: MTD with multiple IV doses in rats 4.0 mg/kg/day
Dog: MTD with multiple doses in dogs 0.4 mg/kg/day

Chronic Exposure

No data available

Section 12 – Environmental Information

Persistence and Degradability

No data available.

Section 13 – Waste Disposal Methods

All wastes containing the material should be properly labeled. Dispose of any waste residues according to prescribed federal, state, and local guidelines, e.g., appropriately permitted chemical waste incinerator. Rinse waters resulting from spill cleanups should be discharged in an environmentally safe manner, e.g., appropriately permitted municipal or on-site wastewater treatment facility.

Section 14 – Transportation Information

Hazard Class

Class 9

UN Number

UN3077

Shipping Name

Environmentally Hazardous Substance, solid, n.o.s. (17-DMAG)

Packaging Instructions

Passenger: Excepted Quantities Shipment
Y914

Maximum Quantity: 1 kg

Maximum Quantity: 30 kg

Cargo: 914

Maximum Quantity: No Limit

Section 15 – Labeling/Regulatory Information

Containers of this material should have affixed the following label (in addition to the identity label):

CAUTION:

Warning symbol(s) - Xn (Harmful)



Warning words - HARMFUL

EU Risk phrases -

R: 42/43: May cause sensitization by inhalation and skin contact.

EU Safety Phrases -

S: 36: Wear suitable protective clothing.

California Proposition 65

Not listed.

Section 16 – Other Information

No additional information.

The above information is based on data available to us and is believed to be correct. Since the information may be applied under conditions beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of its use and all persons receiving it must make their own determination of the effects, properties and protections which pertain to their particular conditions.

No representation, warranty, or guarantee, express or implied (including a warranty of fitness or merchantability for a particular purpose), is made with respect to the materials, the accuracy of this information, the results to be obtained from the use thereof, or the hazards connected with the use of the material. Caution should be used in the handling and use of the material because it is biologically active.