SAFETY DATA SHEET

Cat# BN00067 ExoGenie Tumor-derived Exosome enrichment and Quantification Assay Kit (Biological Fluids/Cell Media, Colorimetric)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **ExoGenie Tumor-derived Exosome enrichment and Quantification Assay Kit (Biological Fluids/Cell Media, Colorimetric)**

PRODUCT CODES: **Cat# BN00067**

MANUFACTURER: **Assay Genie (brand of Reagent Genie Ltd.)**

ADDRESS: **G1 The Steelworks, Foley Street, Dublin 1**

EMERGENCY PHONE: **+353 1 8879802**

SECTION 2: HAZARDS IDENTIFICATION

Component	Description	Volume	Safety Information
Sample buffer (1X)	Solution	2 x 10 ml	No hazards
Washing buffer (25X)	Solution	2 x 15 ml	No hazards
Primary Antibody	Solution	20 µl	No hazards
HRP conjugated	Solution	5 µl	No hazards
Substrate chromogenic solutions	Solution	10 ml	No hazards
Stop solution	Solution with sulphuric acid > 1%	10 ml	See below
Exosome Standards	Powder	2 x 100 µg	No hazards

Sulphuric Acid:

Emergency Overview

OSHA Hazards: Irritant, Harmful by ingestion

GHS Classification: Corrosive to metals (Category 1)
Skin corrosion (Category 1A)
Serious eye damage (Category 1)

GHS Label elements, including precautionary statements

Pictogram:

Signal word: Danger

Hazard statement(s):
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

Precautionary statement(s):
P234 Keep only in original container.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.
P405 Store locked up.
P406 Store in corrosive resistant stainless steel container with a resistant inner liner.
P501 Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification
- **Health hazard**: 3
- **Flammability**: 0
- **Physical hazards**: 2

NFPA Rating
- **Health Hazard:** 3
- **Fire**: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Skin: Harmful if absorbed through skin. Causes skin irritation.
Eyes: Causes eye irritation.
Ingestion: Harmful if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	EC-No.	Molecular Weight	Chemical Formula
Sulphuric Acid	7664-93-9	231-639-5	98.08	H_2SO_4

SECTION 4: FIRST AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.
If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing during transport to hospital.
If swallowed: DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5: FIRE-FIGHTING MEASURES

Condition of flammability: Not flammable or combustible.
Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for fire-fighters: Wear self-contained breathing apparatus for firefighting if necessary.
Hazardous combustion products: Hazardous combustion products formed under fire conditions— no data available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods for cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling
Avoid inhalation of vapor or mist. Avoid contact with skin and eyes.
Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Recommended storage temperature: 4°C

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Sulphuric Acid:

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Sulphuric Acid
Appearance:	Liquid
pH:	1.2 at 5 g/l
Water Solubility:	No data available
Other Solubility:	No data available
Boiling Point (°C):	290 °C (554 °F)
Melting Point (°C):	3 °C (37 °F)
Flash Point (°C):	No data available
Ignition Temperature (°C):	No data available
Density:	No data available

SECTION 10: STABILITY AND REACTIVITY

Property	Sulphuric Acid
Chemical stability:	Stable under recommended storage conditions
Conditions to avoid:	Not data available
Materials to avoid:	Strong oxidizing agents
Hazardous decomposition products:	Sulphur oxides

SECTION 11: TOXICOLOGICAL INFORMATION

Sulphuric Acid:

Acute toxicity: LD50 Oral - Rat - 2,140 mg/kg
LC50 Inhalation - Rat - 2 h - 510 mg/m3
Dermal: No data available

Skin corrosion/irritation: Skin – rabbit – Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation: Eyes – rabbit – Corrosive to eyes.

Respiratory or skin sensitization: No data available.

Germ cell mutagenicity: No data available

Carcinogenicity:

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Teratogenicity: no data available

Specific target organ toxicity – single exposure (GHS): no data available.

Specific target organ toxicity – repeated exposure (GHS): no data available

Aspiration hazard: no data available

Potential Health Effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Skin: Harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: Harmful if swallowed.

Signs and Symptoms of Exposure: Exposure may cause nausea, headache, and/or vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: no data available

Additional information: RTECS: AX0247000

SECTION 12: ECOLOGICAL INFORMATION

Sulphuric Acid:
Persistence and degradability: The methods for determining the biological degradability are not applicable to inorganic substances
Toxicity:

Toxicity to fish: LC50 - Gambusia affinis (Mosquito fish) - 42 mg/l - 96 h LC50 – Lepomis macrochirus (Bluegill) – 1.0-9.7 mg/l – 96 h
Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 29 mg/l - 24 h
Bioaccumulative potential: no data available
Mobility in soil: no data available
PBT and vPvB assessment: no data available
Other adverse effects: no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solven and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

Sulphuric Acid:
DOT (US): UN number: 1830 Class: 8 Packing group: II
Proper shipping name: Sulphuric acid
Reportable Quantity (RQ): 100 lbs
Poison Inhalation Hazard: No
IMDG: UN number: 1830 Class: 8 Packing group: II EMS-No: F-A, S-B
Proper shipping name: SULPHURIC ACID
IATA: UN number: 1830 Class: 8 Packing group: II
Proper shipping name: Sulphuric acid

SECTION 15: REGULATORY INFORMATION

SARA 302 Components: The following components are subject to reporting levels established by SARA Title III, Section 302: Sulphuric acid, CAS-No. 7664-93-9
SARA 313 Components: The following components are subject to reporting levels established by SARA Title III, Section 313: Sulphuric acid, CAS-No. 7664-93-9
SARA 311/312 Hazards: Sulphuric Acid: Acute Health Hazard
Massachusetts Right To Know Components: Sulphuric acid, CAS-No. 7664-93-9.
Pennsylvania Right To Know Components: Sulphuric Acid, CAS-No. 7664-93-9
New Jersey Right To Know Components: Sulphuric Acid, CAS-No. 7664-93-9
California Prop. 65 Components: WARNING! This product contains a chemical known to the State of California to cause cancer. CAS-No. 7664-93-9

EU regulations:

Component	Risk Phrases	Safety Phrases
Sulphuric Acid	R35	S26, S30, S45

SECTION 16: OTHER INFORMATION

DISCLAIMER:
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Assay Genie shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.