

SAFETY DATA SHEET

Cat# BN00647 Mitochondrial DNA Purification Kit

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Mitochondrial DNA Purification Kit

PRODUCT CODES: Cat# BN00647

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
Buffer H [Homogenization Buffer]	Liquid	90 ml	No hazards
Buffer R [Re-suspension Buffer]	Contains SDS	9 ml	See below
Enzyme Mix	Liquid	380 µl	No hazards
RNAse A	Liquid	380 µl	No hazards
Buffer L [Lysis Buffer]	Liquid	9 ml	No hazards
Buffer N [Neutralization Buffer]	Liquid	9 ml	No hazards
Buffer W [Wash Buffer]	Liquid	8 ml	No hazards
Buffer E [Elution Buffer]		4 ml	No hazards
Spin Columns/Collection Tubes	Liquid	25 tubes	No hazards

SDS:

Emergency Overview

OSHA Hazards: Flammable solid, Target organ effect, Harmful by ingestion, Irritant, Toxic by skin absorption

Target Organs: Lungs

GHS Classification:

Flammable solids (Category 1)
Acute toxicity, Oral (Category 3)
Acute toxicity, Dermal (Category 3)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Specific target organ toxicity – single exposure (Category 3)
Acute aquatic toxicity (Category 2)

GHS Label elements, including precautionary statements

Pictogram:



Signal word: Danger

Hazard statement(s):

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H412: Harmful to aquatic life with long-lasting effects.

Precautionary statement(s): P210 Keep away from heat/sparks/open flames/hot surfaces – no smoking.

P261 Avoid breathing dust/fumes/gas/mist/vapors/spray.

P264 Wash hands thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Call a POISON CENTER or doctor/physician.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P501 Dispose of contents/container to an approved waste disposal plant.

HMIS Classification

SAFETY DATA SHEET

Cat# BN00647 Mitochondrial DNA Purification Kit

Health hazard: 2

Chronic health hazard: *

Flammability: 3

Physical hazards: 3

NFPA Rating

Health Hazard: 2

Fire: 3

Reactivity Hazard: 3

Potential Health Effects

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

Skin: Toxic 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
SDS	151-21-3	205-788-1	288.38	$\text{CH}_3(\text{CH}_2)_{11}\text{OSO}_3\text{Na}$

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: 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.

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 decomposition products formed under fire conditions— see section 10.

Further information: Use water spray to cool unopened containers.

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 contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: -20 °C/RT.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

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

SAFETY DATA SHEET

Cat# BN00647 Mitochondrial DNA Purification Kit

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	SDS
Appearance:	White solid
pH:	7.2
Water Solubility:	Soluble
Other Solubility:	No data available
Boiling Point (°C):	No data available
Melting Point (°C):	204-207 °C (399-405 °F)
Flash Point (°C):	180 °C (356 °F)
Ignition Temperature (°C):	No data available
Density:	0.370 g/cm ³

SECTION 10: STABILITY AND REACTIVITY

Property	SDS
Chemical stability:	Stable under recommended storage conditions
Conditions to avoid:	Heat, flames and sparks. Extremes of temperature and direct sunlight.
Materials to avoid:	Oxidizing agents
Hazardous decomposition products:	Carbon oxides, sulfur oxides, sodium oxides

SECTION 11: TOXICOLOGICAL INFORMATION

SDS:

Acute toxicity: LD50 Oral – rat – 1,288 mg/kg

LC50 Inhalation – rat – 1 h – >3,900 mg/m³

LC50 Dermal – rabbit – 580 mg/kg

Skin corrosion/irritation: Skin – rabbit – skin irritation – 24 h

Serious eye damage/eye irritation: Eyes – rabbit – risk of serious damage to eyes. OECD Test Guideline 405.

Respiratory or skin sensitization: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

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): Inhalation – may cause respiratory irritation.

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: Toxic if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

SAFETY DATA SHEET

Cat# BN00647 Mitochondrial DNA Purification Kit

Ingestion: Harmful if swallowed.

Synergistic effects: no data available

Additional information: RTECS: WT1050000

SECTION 12: ECOLOGICAL INFORMATION

SDS:

Persistence and degradability: Biodegradability: Result ☐ 90% readily biodegradable

Toxicity: Toxicity to fish: mortality NOEC – Oncorhynchus mykiss (rainbow trout) – 19.5 mg/l – 96 h

Mortality LOEC – Pimephales promelas (fathead minnow) – 4.6 mg/l – 8 d

LC50 – Oncorhynchus mykiss (rainbow trout) – 3.6 mg/l – 96 h

Toxicity to algae: Growth inhibition LOEC – Pseudokirchneriella subcapitata – 2.68 mg/l – 6 d

Bioaccumulative potential: Bioaccumulation: Cyprinus carpio (Carp) – 72 h

Bioconcentration factor (BCF): 3.9-5.3

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact 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.

Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

SDS:

DOT (US): UN-number: 2926, Class: 4.1 (6.1), Packing group: II; Proper shipping name: Flammable solids, toxic, organic, n.o.s. (Sodium dodecyl sulfate); Marine pollutant: No; Poison Inhalation Hazard: No

IMDG: UN-number: 2926, Class: 4.1 (6.1), Packing group: II; EMS-No: F-A, S-G; Proper shipping name: FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. (Sodium dodecyl sulfate); Marine pollutant: No

IATA: UN-number: 2926, Class: 4.1 (6.1), Packing group: II; Proper shipping name: Flammable solids, toxic, organic, n.o.s. (Sodium dodecyl sulfate)

SECTION 15: REGULATORY INFORMATION

SARA 302 Components: SARA 302: No chemical in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards:

SDS: Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components:

Sodium dodecyl sulfate, CAS-No. 151-21-3

New Jersey Right To Know Components:

Sodium dodecyl sulfate, CAS-No. 151-21-3

California Prop. 65 Components: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

EU regulations:

Component	Risk Phrases	Safety Phrases
SDS	R10, R25, R36/38, R45	S23, S24/25, S26, 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.