SAFETY DATA SHEET

Cat# BN00884, Succinate Dehydrogenase Activity Colorimetric Assay Kit

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **Succinate Dehydrogenase Activity Colorimetric Assay Kit**

PRODUCT CODES: **Cat# BN00884**

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
SDH Assay Buffer	Proprietary Buffer	25 ml	No hazards
SDH Substrate Mix	Lyophilizate (contains NaN_3)	n/a	See below
SDH Probe	Liquid	0.2 ml	No hazards
DCIP Standard	Liquid	0.4 ml	No hazards
SDH Positive Control	Lyophilizate	n/a	No hazards

Sodium azide:

Emergency Overview

OSHA Hazards: Target organ effect, Highly toxic by ingestion, Highly toxic by skin absorption

Target Organs: Heart, Central nervous system, Brain

Other hazards which do not result in classification: Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Rapidly absorbed through skin.

GHS Classification: Acute toxicity, Oral (Category 2)
Acute toxicity, Dermal (Category 1)
Acute aquatic toxicity (Category 1)
Chronic aquatic toxicity (Category 1)

GHS Label elements, including precautionary statements

Pictogram:

Signal word: Danger

Hazard statement(s): H300+H310 Fatal if swallowed or in contact with skin.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s): P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P302+P350 IF ON SKIN: Gently wash with plenty of soap and water.
P330 Rinse mouth.
P501 Dispose of contents/container to an approved waste disposal plant.

HMIS Classification

- **Health hazard**: 4
- **Chronic health hazard**: *
- **Flammability**: 0
- **Physical hazards**: 0

NFPA Rating

- **Health Hazard:** 4
- **Fire**: 0
- **Reactivity Hazard**: 0

Potential Health Effects

- **Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.
- **Skin:** May be fatal if absorbed through skin. May cause skin irritation.
- **Eyes:** May cause eye irritation.

Ingestion: May be fatal if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	EC-No.	Molecular Weight	Chemical Formula
Sodium azide	26628-22-8	247-852-1	65.01	NaN_3

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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. 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. Do not flush with water. 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.
Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: -20°C.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Sodium azide:

Components	CAS-No.	Value	Control parameters	Basis
Sodium azide	26628-22-8	C	0.1 ppm	USA. OSHA-TABLE Z-1 Limits for Air Contaminants – 1910.1000
Remarks: Skin notation				
		C	0.1 ppm	USA. NIOSH Recommended Exposure Limits
Potential for dermal absorption				
		C	0.3 mg/m^3	USA. NIOSH Recommended Exposure Limits
Potential for dermal absorption				
		C	0.11 ppm	USA. ACGIH Threshold Limit Values (TLV)
Lung damage. Cardiac impairment. Not classifiable as a human carcinogen.				
		C	0.29 mg/m^3	USA. ACGIH Threshold Limit Values (TLV)
Lung damage. Cardiac impairment. Not classifiable as a human carcinogen.				

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

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Sodium azide
Appearance:	White solid
pH:	10 at 65 g/l
Water Solubility:	Completely soluble
Other Solubility:	No data available
Boiling Point (°C):	No data available
Melting Point (°C):	275 °C (527 °F)
Flash Point (°C):	No data available
Ignition Temperature (°C):	No data available
Density:	1.850 g/cm^3

SECTION 10: STABILITY AND REACTIVITY

Property	Sodium azide
Chemical stability:	Stable under recommended storage conditions
Conditions to avoid:	No data available
Materials to avoid:	Halogenated hydrocarbon, metals, acids, acid chlorides
Hazardous decomposition products:	Sodium oxides

SECTION 11: TOXICOLOGICAL INFORMATION

Sodium azide:

Acute toxicity: LC50 Inhalation – rat – 37 mg/m^3 Remarks: Sense Organs and Special Senses: Eye: Other. Behavioral: Convulsions or effect on seizure threshold. Lung, Thorax, or Respiration: Structural or functional change in trachea or bronchi.

LD50 Dermal – rabbit – 20 mg/kg

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

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

Potential Health Effects

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

Skin: May be fatal if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be fatal if swallowed.

Signs and Symptoms of Exposure: Exposure may cause nausea, headache, vomiting. Laboratory experiments in animals have shown sodium azide to produce a profound hypotensive effect, demyelination of myelinated nerve fibers in the central nervous system, testicular damage, blindness, attacks of rigidity, and hepatic and cerebral effects.
Additional information: RTECS: MA8050000

SECTION 12: ECOLOGICAL INFORMATION

Sodium azide:
Persistence and degradability: no data available
Toxicity: Toxicity to daphnia and other aquatic invertebrates: EC50 – Daphnia pulex (Water flea) – 4.2 mg/l – 48 h
Bioaccumulative potential: no data available
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.
Very toxic to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

Product: Observe all federal, state, and local environmental regulations.
Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

Sodium azide:
DOT (US): UN-number: 1687, Class: 6.1, Packing group: II; Proper shipping name: Sodium azide; Reportable Quantity (RQ): 1000 lbs.; Marine pollutant: Yes; Poison inhalation hazard: No
IMDG: UN-number: 1687, Class: 6.1, Packing group: II; EMS-No: F-A, S-A; Proper shipping name: SODIUM AZIDE; Marine pollutant: Yes
IATA: UN-number: 1687, Class: 6.1, Packing group: II; Proper shipping name: Sodium azide

SECTION 15: REGULATORY INFORMATION

OSHA Hazards: Sodium azide: Target organ effect, Highly toxic by ingestion, Highly toxic by skin absorption
SARA 302 Components: The following components are subject to reporting levels established by SARA Title III, Section 302:
Sodium azide, CAS-No. 26628-22-8; Revision Date: 2007-07-01
SARA 313 Components: The following components are subject to reporting levels established by SARA Title III, Section 313:
Sodium azide, CAS-No. 26628-22-8; Revision Date: 2007-07-01
SARA 311/312 Hazards: Sodium azide: Acute Health Hazard, Chronic Health Hazard
Massachusetts Right To Know Components: Sodium azide, CAS-No. 26628-22-8; Revision Date: 2007-07-01
Pennsylvania Right To Know Components: Sodium azide, CAS-No. 26628-22-8; Revision Date: 2007-07-01
New Jersey Right To Know Components: Sodium azide, CAS-No. 26628-22-8; Revision Date: 2007-07-01
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
Sodium azide	R27/28, R32, R50/53	S28, S45, S60, S61

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.