

SAFETY DATA SHEET

Cat# BN00914, alpha-Glucosidase Activity Colorimetric Assay Kit

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: alpha-Glucosidase Activity Colorimetric Assay Kit

PRODUCT CODES: Cat# BN00914

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
α -Glucosidase Assay Buffer	Proprietary Buffer	25 ml	No hazards
α -Glucosidase Substrate Mix	Solution (contains Isopropanol)	300 μ l	See below
α -Glucosidase Positive Control	Lyophilized	1 vial	No hazards
α -Glucosidase Standard (100 mM)	Solution	100 μ l	No hazards

Isopropanol:

Emergency Overview

OSHA Hazards: Flammable liquid, Target organ effect, Irritant

Target Organs: Nerves, Kidney, Cardiovascularsystem, Gastrointestinal tract, Liver

GHS Classification: Flammable liquids (Category 2)
Skin irritation (Category 3)
Eye irritation (Category 2A)
Specific target organ toxicity – single exposure (Category 3)

GHS Label elements, including precautionary statements

Pictogram:



Signal word: Danger

Hazard statement(s): H225 Highly flammable liquid and vapour.
H316 Causes mild skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

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

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

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

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

HMIS Classification

Health hazard: 2

Chronic hazard: *

Flammability: 3

Physical hazards: 0

NFPA Rating

Health Hazard: 2

Fire: 3

Reactivity Hazard: 0

Potential Health Effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness or dizziness.

Skin: May be harmful if absorbed through skin. Causes skin burns.

Eyes: Causes severe eye burns.

Ingestion: May be harmful if swallowed.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	EC-No.	Molecular Weight	Chemical Formula
Isopropanol	67-63-0	200-661-7	60.10	C ₃ H ₈ O

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

Isopropanol:

Conditions of flammability: Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products: Hazardous decomposition products formed under fire conditions – carbon oxides.

Further information: Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear respiratory protection. 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 without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Avoid inhalation of vapor or mist. Avoid contact with skin and eyes. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition (no smoking). Take measures to prevent the buildup of electrostatic charge.

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

Isopropanol:

Components	CAS-No.	Value	Control parameters	Basis
2-propanol	67-63-0	TWA	200 ppm	USA. ACGIH Threshold Limit Values (TLV)
Remarks:	Eye & upper respiratory tract irritation. Central nervous system impairment. Not classifiable as a human carcinogen.			
		STEL	400 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Eye & upper respiratory tract irritation. Central nervous system impairment. Not classifiable as a human carcinogen.			
		TWA	400 ppm 980 mg/m ³	USA. Occupational Exposure Limits (OSHA): Table Z-1 Limits for Air Contaminants -1910.1000
		STEL	500 ppm 1,225 mg/m ³	USA. Occupational Exposure Limits (OSHA): Table Z-1 Limits for Air Contaminants -1910.1000
		TWA	400 ppm 980 mg/m ³	USA. Occupational Exposure Limits (OSHA): Table Z-1 Limits for Air Contaminants
The value in mg/ m ³ is approximate.				
		TWA	400 ppm	USA. NIOSH Recommended Exposure Limits

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			980 mg/m ³	
		ST	500 ppm 1,225 mg/m ³	USA. NIOSH Recommended Exposure Limits

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

Tightly fitting safety goggles. Face shield (8-inch minimum). 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

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	Isopropanol
Appearance:	Liquid
pH	No data available
Water Solubility:	Completely soluble
Other Solubility:	No data available
Boiling Point (°C):	82 °C (180 °F)
Melting Point (°C):	-89.5 °C (-129.1 °F)
Flash Point (°C):	12 °C (53.6 °F) – closed cup
Ignition Temp. (°C):	425 °C (797 °F)
Density:	0.785 g/cm ³ at 25 °C (77 °F)

SECTION 10: STABILITY AND REACTIVITY

Property	Isopropanol
Chemical Stability:	Stable under recommended storage conditions
Conditions to Avoid:	Heat, flames, sparks, extremes of temperature and direct sunlight
Materials to Avoid:	Oxidizing agents, acid anhydrides, aluminum, halogenated compounds, acids
Hazardous decomposition products:	Carbon oxides

SECTION 11: TOXICOLOGICAL INFORMATION

Isopropanol:

Acute toxicity: LD50 Oral – rat – 5,045 mg/kg □ Remarks: Behavioral: altered sleep time (including change in righting reflex). **Behavioral:** somnolence (general depressed activity).

LC50 Inhalation – rat – 8 h – 16,000 ppm

LD50 Dermal – rabbit – 12,800 mg/kg

Skin corrosion/irritation: Skin – rabbit- mild skin irritation.

Serious eye damage/eye irritation: Eyes – rabbit – eye irritation – 24 h.

Respiratory or skin sensitization: May cause sensitization by skin contact.

Germ cell mutagenicity: no data available

Carcinogenicity: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classification.

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IARC: 3 –Group 3: Not classifiable as to its carcinogenicity to humans (2-propanol).
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): May cause drowsiness or dizziness.

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. Vapors may cause drowsiness or dizziness.

Skin: May be harmful if absorbed through skin. Causes skin burns.

Eyes: Causes severe eye burns.

Ingestion: May be harmful if swallowed.

Signs and Symptoms of Exposure: Central nervous system depression. Prolonged or repeated exposure can cause: nausea, headache, vomiting, narcosis, drowsiness. Overexposure may cause mild, reversible liver effects.

Additional information: RTECS: NT8050000

SECTION 12: ECOLOGICAL INFORMATION

Isopropanol:

Persistence and degradability: no data available

Toxicity: Toxicity to fish: LC50 – Pimephales promelas (fathead minnow) – 9,640 mg/l – 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 – Daphnia magna (water flea) – 5,102 mg/l – 24 h

Immobilization EC50 – Daphnia magna (water flea) – 6,851 mg/l – 24 h

Toxicity to algae: EC50 – Desmodesmus subspicatus (green algae) – >2,000 mg/l – 72 h

EC50 – algae – >1,000 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: Observe all federal, state, and local environmental regulations.

Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

Isopropanol:

DOT (US): UN-Number: 1219, Class: 3, Packing group: II; Proper shipping name: Isopropanol; Marine pollutant: No; Poison Inhalation Hazard: No

IMDG: UN-Number: 1219, Class: 3, Packing group: II; EMS-No: F-E, S-D; Proper shipping name: ISOPROPANOL; Marine pollutant: No

IATA: UN-Number: 1219, Class: 3, Packing group: II; Proper shipping name: Isopropanol

SECTION 15: REGULATORY INFORMATION

OSHA Hazards: Isopropanol: Flammable liquid, Target organ effect, Irritant

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: The following components are subject to reporting levels established by SARA Title III, Section 313:

Isopropanol, CAS-No. 67-63-0; Revision Date: 1987-01-01

SARA 311/312 Hazards: Isopropanol: Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components: Isopropanol, CAS-No. 67-63-0; Revision Date: 1987-01-01

Pennsylvania Right To Know Components: Isopropanol, CAS-No. 67-63-0; Revision Date: 1987-01-01

New Jersey Right To Know Components: Isopropanol, CAS-No. 67-63-0; Revision Date: 1987-01-01

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.

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EU regulations

Component	Risk Phrases	Safety Phrases
Isopropanol	R11, R36, R67	S7, S16, S24/25, S26

SECTION 16: OTHER INFORMATION:

OTHER INFORMATION:

PREPARATION 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.