

SAFETY DATA SHEET

Cat# K645-100, Total Carbohydrate Assay Kit

SDS DATE: 6May2015

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Total Carbohydrate Assay Kit
PRODUCT CODES: Cat# K645-100
MANUFACTURER: BioVision, Inc.
DIVISION:
ADDRESS: 155 S. Milpitas Blvd. Milpitas, CA 95035
EMERGENCY PHONE: 858-373-8066
CHEMTREC PHONE:
OTHER CALLS: 408-493-1800
FAX PHONE: 408-493-1801

SECTION 2: HAZARDS IDENTIFICATION

Component	Description	Volume	Safety Information
Assay Buffer	Proprietary Buffer	25 ml	No hazards
Developer	Solution (contains Phenol)	3 ml	See below
Standard	D-Glucose	0.2 ml	No hazards

Phenol:

Emergency Overview

OSHA Hazards: Target organ effect, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption, Corrosive, Mutagen

Target Organs: Central nervous system, Kidney, Liver, Pancreas, Spleen

Other hazards which do not result in classification: Rapidly absorbed through skin, Vessicant

GHS Classification:
Acute toxicity, Oral (Category 3)
Acute toxicity, Inhalation (Category 3)
Acute toxicity, Dermal (Category 3)
Skin corrosion (Category 1B)
Serious eye damage (Category 1)
Germ cell mutagenicity (Category 2)
Specific target organ toxicity – single exposure (Category 2)
Specific target organ toxicity – repeated exposure (Category 2)
Acute aquatic toxicity (Category 3)

GHS Label elements, including precautionary statements

Pictogram:



Signal word:

Danger

Hazard statement(s):

H301+H311 Toxic if swallowed or in contact with skin.
H314 Causes severe skin burns and eye damage.
H331 Toxic if inhaled.
H341 Suspected of causing genetic defects.
H371 May cause damage to organs.
H373 May cause damage to organs through prolonged or repeated exposure.
H402 Harmful to aquatic life.

Precautionary statement(s):

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P303+P361+P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P307+P311 IF exposed: Call a POISON CENTER or doctor/physician.
P310 Immediately call a POISON CENTER or doctor/physician.

HMIS Classification

Health hazard: 3

Fire hazard: *

Flammability: 0

Physical hazards: 0

NFPA Rating

Health Hazard: 3

Fire: 2

Reactivity Hazard: 0

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Potential Health Effects

Inhalation: Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Skin: Toxic if absorbed through skin. Causes skin burns.

Eyes: Causes eye burns.

Ingestion: Toxic if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	EC-No.	Molecular Weight	Chemical Formula
Phenol	108-95-2	203-632-7	94.11	C ₆ H ₆ 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: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. 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 eyes 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: Wear respiratory protection. 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.

Conditions for safe storage

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

Recommended storage temperature: +4°C

Handle and store under inert gas. Light sensitive.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Phenol:

Components	CAS-No.	Value	Control parameters	Basis	
Phenol	108-95-2	TWA	5 ppm	USA. ACGIH Threshold Limit Values (TLV)	
Remarks:	Central nervous system impairment, upper respiratory tract irritation, lung damage. Substances for which there is a Biological Exposure Index or Indices. Not classifiable as a human carcinogen. Danger of cutaneous absorption.				
		TWA	5 ppm 19 mg/m ³	USA. OSHA – Table Z-1 Limits for Air Contaminants – 1910.1000	
		Skin notation.			
		STEL	5 ppm 19 mg/m ³	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants	
		Skin designation. The value in mg/m ³ is approximate.			
		TWA	5 ppm 19 mg/m ³	USA. NIOSH recommended exposure limits	
		Potential for dermal absorption. 15 minute ceiling value.			
		C	15.6 ppm 60 mg/m ³	USA. NIOSH recommended exposure limits	
		Potential for dermal absorption. 15 minute ceiling value.			

Personal protective equipment
Respiratory protection

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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	Phenol
Appearance:	Solid
pH:	6.0
Water Solubility:	No data available
Other Solubility:	No data available
Boiling Point (°C):	182 °C (360 °F)
Melting Point (°C):	40-42 °C (104-108 °F)
Flash Point (°C):	79.0 °C (174.2 °F) – closed cup
Ignition Temperature (°C):	715 °C (1,319 °F)
Density:	1.071 g/ml at 25 °C (77 °F)

SECTION 10: STABILITY AND REACTIVITY

Property	Phenol
Chemical stability:	Stable under recommended storage conditions
Conditions to avoid:	No data available
Materials to avoid:	Strong oxidizing agents, strong bases, strong acids
Hazardous decomposition products:	Carbon oxides

SECTION 11: TOXICOLOGICAL INFORMATION

Phenol:

Acute toxicity: LD50 Oral – rat – 317 mg/kg → Remarks: Behavioral: convulsions or effect on seizure threshold.

LD50 Oral – rat – 410-650 mg/kg

LC50 Inhalation – rat – 900 mg/m³ – 8 h

LD50 Dermal – rabbit – 630 mg/kg

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

Serious eye damage/eye irritation: Eyes – rabbit – severe eye irritation

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: In vitro tests showed mutagenic effects.

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.

IARC: 3 – Group 3: Not classifiable as to its carcinogenicity to humans (Phenol)

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): May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: no data available

Potential Health Effects

Inhalation: Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Skin: Toxic if absorbed through skin. Causes skin burns.

Eyes: Causes eye burns.

Ingestion: Toxic if swallowed.

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Signs and Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been through investigated.

Synergistic effects: no data available

Additional information: RTECS: SJ3325000

SECTION 12: ECOLOGICAL INFORMATION

Phenol:

Persistence and degradability: no data available

Toxicity:

Toxicity to fish→ LC50 – Leuciscus idus (Golden orfe) – 14.00-25.00 mg/l – 48 h

LC50 – Carassius auratus (Goldfish) – 36.10-68.80 mg/l – 96 h

Toxicity to daphnia and other aquatic invertebrates→ EC50 – Daphnia magna (Water flea) – 12.00 mg/l – 24 h

EC 100 – Daphnia magna (Water flea) – 100.00 mg/l – 24 h

Toxicity to algae→ EC50 – Chlorella vulgaris (Fresh water algae) – 370.00 mg/l – 96 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. Harmful to aquatic life.

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 solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

Phenol:

DOT (US): UN-number: 1671, Class: 6.1, Packing group: II; Proper shipping name: Phenol, solid; Reportable Quantity (RQ): 1000 lbs; Marine pollutant: No; Poison inhalation hazard: No

IMDG: UN-number: 1671, Class: 6.1, Packing group: II; EMS-No: F-A, S-A; Proper shipping name: PHENOL, SOLID; Marine pollutant: No

IATA: UN-number: 1671, Class: 6.1, Packing group: II; Proper shipping name: Phenol, solid

SECTION 15: REGULATORY INFORMATION

OSHA Hazards: Phenol; Target organ effect, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption, Corrosive, Mutagen

SARA 302 Components: The following components are subject to reporting levels established by SARA Title III, Section 302:

Phenol, CAS-No. 108-95-2; Revision Date: 2007-07-01

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

Phenol, CAS-No. 108-95-2; Revision Date: 2007-07-01

SARA 311/312 Hazards: Phenol; Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components: Phenol, CAS-No. 108-95-2; Revision Date: 2007-07-01

Pennsylvania Right To Know Components: Phenol, CAS-No. 108-95-2; Revision Date: 2007-07-01

New Jersey Right To Know Components: Phenol, CAS-No. 108-95-2; Revision Date: 2007-07-01

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

EU regulations

Component	Risk Phrases	Safety Phrases
Phenol	R23/24/25, R34, R48/20/21/22, R68	S24/25, S26, S28, S36/37/39, 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. BioVision, Inc., 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.