

Doc No: 931-QA910-60K Rev: B Date of Release: 13-Oct-2023

**1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER**

- a) GHS Product Identifier : BGX AP IHC Detection kit
- b) Other means of identification : Not available
- c) Product code : QA910-60K
- d) Recommended use of the chemical and restrictions on use : Restricted for professional users.
- e) Supplier's details (including name, address, phone number etc.) : BioGenex Laboratories, Inc  
48810 Kato Road, Suite 100E & 200E  
Fremont, CA 94538
- f) Emergency phone number : BioGenex: (01) (510) 275-0550  
Chemtrec Assistance: (800) 424-9300 (U.S. and Canada only)  
(01) (703) 527-3887 (all other countries)

**2. HAZARD IDENTIFICATION**

- a) GHS classification of the substance/mixture and any national or regional information:

NAME	COMPONENT NAME	EC NO	CAS NO	CONTENT	CLASSIFICATION
HK111-5KTN	Peroxide Block	231-765-0	7722-84-1	Hydrogen Peroxide	R5 - O; R8 - C; R35 - Xn; R20/22
HK112-5K	Protein Block	247-852-1	26628-22	Sodium Azide	R28-R32-N;R50-53
HK340-5K	MultiLink	247-852-1	26628-22	Sodium Azide	R28-R32-N;R50-53
HK331-5K	AP Label	247-852-1	26628-22	Sodium Azide	R28-R32-N;R50-53
HK180-10K	Fast Red Buffer	214-684-5	1185-53-1	Tris HCL	H315- H319-H335
HK181-002K	Fast Red Chromoogen	221-627-8	3165-93-3	4-chloro-o-toluidine hydrochloride	R45-R23/24/25;R50-53;R68
HK100-5KTN	Hematoxylin	200-580-7 208-237-3	64-19-7 517-28-2	Acetic acid Hematoxylin	R10 - C; R35 NDA

- b) GHS label elements, including precautionary statements :

**HK111-5KTN**

LABELING:



O



C

SIGNAL WORD : WARNING

Contains : HYDROGEN PEROXIDE

## R phrases

R8 : Contact with combustible material may cause fire

R35 : Causes severe burns

R20/22 : Harmful by inhalation and if swallowed

## Safety phrases

S1/2 : Keep locked up and out of the reach of children

S17 : Keep away from combustible material

S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S28 : After contact with skin, with immediately with plenty of soap and water

S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection

S45 : In case of accident or if you feel unwell, seek medical advice immediately.

## HK112-5K, HK340-5K, HK331-5K

### LABELING:



SIGNAL WORD: DANGER

Contains: SODIUM AZIDE

### Risk Phrases:

R28 : Very toxic if swallowed.

R32 : Contact with acids liberates very toxic gas.

R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### Safety Phrases :

S1/2 : Keep locked up and out of the reach of children.

S28 : After contact with skin, wash immediately with plenty of . . . (to be specified by the manufacturer).

S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S60 : This material and its container must be disposed of as hazardous waste.

S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

**HK180-10K**

LABELING :



SIGNAL WORD: WARNING

Contains: Tris HCL

## HAZARD STATEMENTS

H315 : Causes skin irritation

H319 : Causes serious eye irritation.

H335 : May cause respiratory irritation

**HK181-002K,**

LABELING



CONTAINS: 4-chloro-o-toluidine hydrochloride

## RISK PHRASES

R45 : May cause cancer

R68 : Possible risk of irreversible effects

R23/24/25 : Toxic by inhalation, in contact with skin and if swallowed.

R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## SAFETY PHRASES

S53 : Avoid exposure - obtain special instructions before use.

S45 : In case of accident or if you feel unwell, seek medical advice immediately

(show the label whenever possible.)

S60 : This material and its container must be disposed of as hazardous waste.

S61 : Avoid release to the environment. Refer to special instructions / safety data sheets.

P11 : Restricted to professional users.

**HK100-5KTN**

LABELING:



C

SIGNAL WORD : WARNING

R phrases

R10 : Flammable

R35 : Causes severe burns

R20/22 : Harmful by inhalation and if swallowed

Safety phrases

S1/2 : Keep locked up and out of the reach of children

S23 : Do not breathe gas/fumes/vapors/spray

S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S45 : In case of accident or if you feel unwell, seek medical advice immediately.

c) Other hazards which do not result in the classification or are not covered by the GHS: Restricted to professional users.

**EXPOSURE LIMITS**

CAS No.	OSHA PEL	ACGIH TLV	NIOSH	OTHER
7722-84-1	NDA	NDA	NDA	NDA
26628-22-8	NDA	0.29 mg/m3 Ceiling (as NaN3) 0.11 ppm Ceiling	NDA	NDA
1185-53-1	NDA	NDA	NDA	NDA
3165-93-3	NDA	NDA	NDA	NDA

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

- a) Chemical identity : Mixture  
b) Common name, synonyms, etc : NDA  
c) CAS number and other unique identifiers

PART NO.	CHEMICAL NAME	SYNONYMS	CAS NO.	PERCENT	EINECS#
HK111-5KTN	Hydrogen Peroxide	-	7722-84-1	30%	231-765-0
HK112-5K, HK340-5K, HK331-5K	Sodium Azide	Sodium salt of hydrazoic acid Smite; Azium.	26628-22-8	<1%	247-852-1
HK180-10K	Tris HCL	Tris (hydroxymethyl) aminomethane hydrochloride	1185-53-1	< 50%	214-684-5
HK181-002K	Fast Red	4-chloro-o-toluidine hydrochloride	3165-93-3	<10%	221-627-8

\*\* For the proprietary ingredient, specific chemical identity is being withheld as a trade secret.

### 4. FIRST AID MEASURES

HK111-5KTN, HK112-5K, HK340-5K, HK331-5K, HK180-10K, HK181-002K, HK100-5KTN

EYES: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Do NOT allow victim to rub or keep eyes closed.

SKIN: Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

INGESTION: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

INHALATION: Move the victim to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician: Treat symptomatically and supportively. No specific antidote exists.

### 5. FIRE-FIGHTING MEASURES

HK111-5KTN, HK112-5K, HK340-5K, HK331-5K, HK180-10K, HK181-002K, HK100-5KTN

- a) Suitable (and unsuitable) extinguishing media :  
Use extinguishing media appropriate for the surrounding fire: dry chemical, foam, carbon dioxide or water. Water spray may be used to cool fire and/or protect response personnel.
- b) Specific hazards arising from the chemical (e.g. nature of any hazardous combustion products):  
The product itself does not burn. Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Keep away from strong acids
- c) Special protective equipment and precautions for fire-fighters:  
Firefighters should wear proper protective equipment and self-contained breathing apparatus (SCBA) if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

HK111-5KTN, HK112-5K, HK340-5K, HK331-5K, HK180-10K, HK181-002K, HK100-5KTN

a) Personal precautions, protective equipment and emergency procedures:

Personal protective equipment and clothing is recommended during all cleanup procedures. Eliminate all ignition sources, stop or control leak. Refer to Section 8 for additional information on exposure controls and personal protective equipment.

b) Environmental precautions:

Do not allow into any body of water. Check with local and State regulations before discharging into sewers or public landfills.

c) Methods and materials for containment and cleaning up.

Avoid physical contact during removal. An approved respirator is recommended when irritant or nuisance vapors are produced. Flood area with water immediately. Control spill with wetted paper towels and isolate material. Place in a closed container and hold for waste disposal. Make sure towels or absorbent materials remain wet while waiting for chemical waste pick-up. Ventilate area and wash spill site after material pickup is complete. Refer to Section 13 for complete disposal information.

## 7. HANDLING AND STORAGE

HK111-5KTN, HK112-5K, HK340-5K, HK331-5K, HK180-10K, HK181-002K, HK100-5KTN

a) Precautions for safe handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation.

Avoid contact with skin, eyes, and clothing. Eliminate all sources of ignition. Avoid eating, drinking and smoking when using the product.

b) Conditions for safe storage, including any incompatibilities:

Keep container in a tightly closed in a ventilated area. The recommended storage temperature is 2-8°C. Keep away from heat, sparks and open flame. Keep separate from food, feedstuffs, fertilizers and other sensitive material. Do not store in direct sunlight.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

HK111-5KTN, HK112-5K, HK340-5K, HK331-5K, HK180-10K, HK181-002K, HK100-5KTN

**Engineering Controls:**

Provide adequate general and local exhaust ventilation. Ensure compliance with applicable exposure limits.

**Personal Protective Equipment**

**Eyes:** Wear safety goggles.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** None required where adequate ventilation conditions exist. .

## 9. PHYSICAL AND CHEMICAL PROPERTIES

HK111-5KTN, HK112-5K, HK340-5K, HK331-5K, HK180-10K, HK181-002K, HK100-5KTN

BOILING POINT : NDA

VAPOR PRESSURE (MM HG): NDA

VAPOR DENSITY (AIR=1) : NDA

MELTING POINT : NDA

SPECIFIC GRAVITY : NDA

SOLUBILITY (H2O) : NDA

APPEARANCE &amp; ODOR : Clear liquid, Odorless

## 10. STABILITY AND REACTIVITY

### HK111-5KTN

STABILITY: Decomposes slowly to release oxygen.

CONDITIONS TO AVOID: Light, metals, excess heat, reducing agents, alkaline materials, strong oxidants.

Incompatible with: Acetic acid, acetic anhydride, acetone, alcohols + sulfuric acid, ammonia and its carbonates, antimony trisulfide, arsenic trisulfide, brass, bronze, t-butyl alcohol, cellulose, charcoal, chlorine + potassium hydroxide, chlorosulfonic acid, chromium, copper, cupric sulfide, dimethyl-benzylcarbinol + sulfuric acid, ethyl alcohol, ferrous sulfide, formic acid + organic matter, gold, hydrazine, hydrogen selenide, iron, ketones + nitric acid, lead, lead dioxide, lead monoxide, lead sulfide, lime water, magnesium, manganese, manganese dioxide, mercuric oxide, mercurous oxide, molybdenum disulfide, nitric acid, organic matter, 1-phenyl-2-methylpropyl.

HAZARDOUS POLYMERISATION : Oxygen, hydrogen gas.

HAZARDOUS DECOMPOSITION PRODUCTS: None reported.

### HK112-5K, HK340-5K, HK331-5K

STABILITY: Stable under normal temperatures and pressures.

CONDITIONS TO AVOID: Strong acids, strong bases, and strong oxidizing agents

DECOMPOSITION: Oxides of phosphorus, carbon monoxide, carbon dioxide, arsenic oxides.

HAZARDOUS POLYMERIZATION: None reported.

### HK180-10K

STABILITY: Stable under recommended conditions.

CONDITIONS TO AVOID: Strong oxidizing agents; Mixtures with hydrogen peroxide are highly explosive; Ignites on contact with potassium permanganate or calcium hypochlorite; nitric acid and sulfuric acid; perchloric acid and lead oxide..

HAZARDOUS POLYMERISATION : Hazardous polymerization does not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride gas.

### HK181-002K

STABILITY: Stable under recommended conditions.

CONDITIONS TO AVOID : Avoid dust formation. Incompatible products

HAZARDOUS POLYMERISATION : Hazardous polymerization does not occur.

MATERIALS TO AVOID : Strong oxidizing agents, Alcohols, Powdered metal salts

HAZARDOUS DECOMPOSITION PRODUCTS : Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

### HK100-5KTN

STABILITY: Stable under recommended conditions.

CONDITIONS TO AVOID: Strong oxidizing agents; Mixtures with hydrogen peroxide are highly explosive; Ignites on contact with potassium permanganate or calcium hypochlorite; nitric acid and sulfuric acid; perchloric acid and lead oxide

HAZARDOUS POLYMERISATION : Oxygen, hydrogen gas.

HAZARDOUS DECOMPOSITION PRODUCTS: None reported.

## 11. TOXICOLOGICAL INFORMATION

a) Information on the likely routes of exposure: Eyes, Oral, Dermal, Inhalation

b) Symptoms related to the physical, chemical and toxicological characteristics:

### HK111-5KTN

**INHALATION:** May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. May cause ulceration of nasal tissue, insomnia, nervous tremors with numb extremities, chemical pneumonia, shock, unconsciousness, and death

**INGESTION:** May cause perforation of the digestive tract and severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhea. May cause difficulty in swallowing, stomach distension, possible cerebral swelling and death

**SKIN CONTACT:** May cause severe skin irritation and possible burns. Exposure can produce pain, swelling, burns, and possible tissue destruction.

**EYE CONTACT:** May cause severe eye irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury. Vapors may cause eye irritation.

**TARGET ORGANS:** Central nervous system, Respiratory system

### HK180-10K

**INHALATION:** May cause respiratory tract irritation

**INGESTION:** May cause gastrointestinal irritation with nausea, vomiting, and diarrhea

**SKIN CONTACT:** May cause skin irritation. May be fatal if absorbed through skin.

**EYE CONTACT:** May cause severe eye irritation and possible eye burns.

**CHRONIC:** Repeated exposure may cause erosion of teeth.

### HK112-5K, HK340-5K, HK331-5K

**INHALATION:** May cause respiratory tract irritation.

**INGESTION:** May cause nausea, vomiting, headaches, dizziness, and gastrointestinal irritation.

**SKIN CONTACT:** May cause skin irritation. May be fatal if absorbed through skin.

**EYE CONTACT:** May cause eye irritation

**TARGET ORGANS:** NDA

### HK181-002K

**INHALATION:** May cause respiratory tract irritation.

**INGESTION:** May cause nausea, vomiting, headaches, dizziness, and gastrointestinal irritation.

**SKIN CONTACT:** May cause skin irritation.



EYE CONTACT: May cause eye irritation

TARGET ORGANS: NDA

**HK100-5KTN**

INHALATION: May cause respiratory irritation.

INGESTION: May be harmful if ingested.

SKIN CONTACT: May be harmful and might cause irritation.

EYE CONTACT: May cause eye irritation.

TARGET ORGANS: NDA

c) Delayed and immediate effects and also chronic effects from short and long term exposure

NDA

d) Numerical measures of toxicity (such as acute toxicity estimates)

**TOXICITY DATA****HK111-5KTN**

CAS#	RTECS	LD50	ACGIH	IARC	NIOSH	NTP	OSHA	Other
7722-84-1	MX0899000 MX0900000	NDA	A2	G3	Yes	Yes	Yes	N/A

Only selected Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. Consult the actual entry in RTECS for complete information.

**HK112-5K, HK340-5K, HK331-5K**

CAS#	RTECS	LD50	CARCINOGENICITY				
			ACGIH	IARC	NIOSH	NTP	OSHA
26628-22	NDA	NDA	NDA	NDA	NDA	NDA	NDA

**HK181-002K, HK180-10K**

No data on possible environmental effects have been found.

**12. ECOLOGICAL INFORMATION****HK111-5KTN, HK112-5K, HK340-5K, HK331-5K, HK180-10K, HK181-002K, HK100-5KTN**

- a) Ecotoxicity (aquatic and terrestrial, where available): NDA
- b) Persistence and degradability : NDA
- c) Bioaccumulative potential : NDA

- d) Mobility in the soil : NDA  
e) Other adverse effects : NDA

## 13. DISPOSAL INFORMATION

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging.

**HK111-5KTN, HK112-5K, HK340-5K, HK331-5K, HK180-10K, HK181-002K, HK100-5KTN**

Dispose in accordance with all applicable federal, state, and local environmental regulations.

## 14. TRANSPORT INFORMATION

US DOT: No information available

IMO: No information available.

IATA: No information available.

RID/ADR: No information available.

Canadian TDG: No information available.

## 15. REGULATORY INFORMATION

**HK111-5KTN**

Risk phrases

R8 : Contact with combustible material may cause fire

R20/22 : Harmful by inhalation and if swallowed

R35 : Causes severe burns

Safety phrases

S1/2 : Keep locked up and out of the reach of children

S17 : Keep away from combustible material

S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S28 : After contact with skin, wash immediately with plenty of soap and water

S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection

S45 : In case of accident or if you feel unwell, seek medical advice immediately. Show the label where possible

**HK112-5K, HK340-5K, HK331-5K**

Risk Phrases:

R28 : Very toxic if swallowed.

R32 : Contact with acids liberates very toxic gas.

R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases :

S1/2 : Keep locked up and out of the reach of children.

S28 : After contact with skin, wash immediately with plenty of . . . (to be specified by the manufacturer).

S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S60 : This material and its container must be disposed of as hazardous waste.

S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

**HK180-10K**

HAZARD STATEMENTS

H315: Causes skin irritation

H319: Causes serious eye irritation.

H335: May cause respiratory irritation

**HK181-002K**

RISK PHRASES

R45: May cause cancer

R68: Possible risk of irreversible effects

R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY PHRASES

S53: Avoid exposure - obtain special instructions before use.

S45: In case of accident or if you feel unwell, seek medical advice immediately  
(show the label whenever possible.)

S60: This material and its container must be disposed of as hazardous waste.

S61: Avoid release to the environment. Refer to special instructions / safety data sheets.

P11: Restricted to professional users.

**HK100-5KTN**

## RISK PHRASES

R10: Flammable

R35: Causes Severe burns

## SAFETY PHRASES

S1/2 : Keep locked up and out of the reach of children.

S45: In case of accident or if you feel unwell, seek medical advice immediately  
(show the label whenever possible.)

S23: Do not breathe gas/fumes/vapors/spray.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

**16. Other information including information on preparation and revision of the SDS**

## Key abbreviations:

N/A

: Not Applicable

NDA

: No data available

## Notice to reader

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