

Doc No: 931-HK057 Rev: A Date of Release: 07-Oct-2016

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

- a) GHS Product Identifier : Antigen Retrieval AR-10 Solution, Concentrated (10X)
- b) Other means of identification : Not available
- c) Product code : HK057-5K, HK057-5KE
- 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
49026 Millmont Drive
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:

Classification according to Directive 1999/45/EC [DPD]

This product is not classified as dangerous according to Directive 1999/45/EC and its amendments

- b) GHS label elements, including precautionary statements :

SIGNAL WORD : No Signal Word

Hazard statement(s)

No known significant effects or critical hazards.

Precautionary statement(s)

Not Applicable

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

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

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

Chemical Name	Synonyms	CAS No	Percent	EINECS#
Tris(hydroxymethyl)aminomethane	Tris, Trizma	77-86-1	<50	Unlisted

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. FIRST AID MEASURES

Get medical aid immediately.

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: Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Call a poison control center.

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

GENERAL INFORMATION: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

EXTINGUISHING MEDIA: Dry powder, foam, carbon dioxide. (Water may be ineffective).

FIRE AND EXPLOSION HAZARD: Unknown fire and explosion hazard.

FLASH POINT: NDA

FIRE FIGHTING MEASURES: Firefighters should wear proper protective equipment and self-contained breathing apparatus (SCBA) with full facepiece operated in positive pressure mode. Move container from fire area if possible. Do not scatter spilled material with more water than needed for fire control. Dike fire control water for later disposal. Avoid breathing hazardous vapors; keep upwind

6. ACCIDENTAL RELEASE MEASURES

a) Personal precautions, protective equipment and emergency procedures:

Wear appropriate protective equipment as specified in Section 8.

b) Environmental precautions:

Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains.

c) Methods and materials for containment and cleaning up.

Eliminate source of ignition. Ventilate area. Cover with absorbent material (soda ash) to confine spill and sweep or shovel into container. Close container tightly. Avoid breathing vapors.

7. HANDLING AND STORAGE

a) Precautions for safe handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Use spark-proof tools and explosion proof equipment. Avoid contact with skin, eyes, and clothing. Avoid ingestion and inhalation.

b) Conditions for safe storage, including any incompatibilities:

Observe all federal, state and local regulations when storing or disposing of this substance.

Store refrigerated in a tightly closed container. Avoid direct sunlight. Store in a cool, well-ventilated area away from incompatible substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source..

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

a. **Appearance** Clear and colorless

b. **Odor** Odorless

c. **Odor Threshold** N.A

d. **pH** N.A.

e. **Melting/Freezing Point (°C)** NDA

f. **Boiling point (°C)** NDA

g. **Flash Point (°C)** NDA

h. **Evaporation Rate** NDA

i. **Flammability** NDA

j. **Upper/Lower Flammability or Explosive Limits** :NDA

k. **Vapor Pressure** NDA

l. **Vapor Density (Air = 1)** NDA

m. **Relative Density** NDA

n. **Water Solubility** Soluble

10. STABILITY AND REACTIVITY

STABILITY: Stable at room temperature in closed containers under normal storage and handling conditions.

CONDITIONS TO AVOID: No Specific Data

INCOMATIBE MATERIAL : May react or be incompatible with oxidising materials.

HAZARDOUS POLYMERISATION : None

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS COMBUSITION PRODUCTS: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

a) Information on the likely routes of exposure: None indicated

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

INHALATION: May cause respiratory tract irritation, headache and unconsciousness.

INGESTION: May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns.

SKIN CONTACT: May cause skin irritation. May be absorbed through the skin. Skin absorption may cause unconsciousness.

EYE CONTACT: May cause eye irritation.

TARGET ORGANS: None identified

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

CAS#	RTECS	LD50	CARCINOGENICITY						
			ACGIH	IARC	NIOSH	NTP	OSHA	Other	
77-86-1	TY2900000	ORL-RAT: 5.9 gm/kg	No	No	No	No	No	None	

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

12. ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial, where available): No data available.

- b) Persistence and degradability : No data available
- c) Bioaccumulative potential : No data available
- d) Mobility in the soil : No data available
- e) Other adverse effects : No known significant effects or critical hazards.

13. DISPOSAL INFORMATION

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC

14. TRANSPORT INFORMATION

US DOT: Not regulated

IATA: Not regulated

IMDG: Not regulated

15. REGULATORY INFORMATION**Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture****INTERNATIONAL INVENTORIES****Seveso II Directive :** This product is not controlled under the Seveso II Directive**International lists**

National inventory

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Japan : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Malaysia : Not determined.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Taiwan : All components are listed or exempted.

United States : All components are listed or exempted.

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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